

OFFICE OF THE CITY ADMINISTRATIVE OFFICER

Date: May 23, 2025

CAO File No. 0150-11751-0005

Council File No.

Council District: 11

To: The Mayor

From: Matthew W. Szabo, City Administrative Officer

Reference: Correspondence from Los Angeles World Airports dated April 17, 2025 and April 22, 2025; referred by the Mayor for a report on April 25, 2025

Subject: **RESOLUTION NO. 28155 AND FIRST AMENDMENT TO DA-5609 BETWEEN LOS ANGELES WORLD AIRPORTS AND SKANSKA-FLATIRON, A JOINT VENTURE FOR PROGRESSIVE DESIGN-BUILD SERVICES FOR PHASE 2 OF THE AIRFIELD AND TERMINAL MODERNIZATION PROGRAM – ROADWAY IMPROVEMENTS PROJECT AT LOS ANGELES INTERNATIONAL AIRPORT**

RECOMMENDATION

That the Mayor:

1. Approve the Los Angeles World Airports (LAWA) Resolution No. 28155 authorizing a proposed First Amendment to Contract No. DA-5609 with Skanska-Flatiron, A Joint Venture, for projects related to Phase 2 of the Airfield and Terminal Modernization Program – Roadway Improvements at Los Angeles International Airport increasing the contract authority by \$1.298 billion from \$173.7 million to \$1.472 billion;
2. Adopt the April 22, 2025 Board of Airport Commissioners determination in Resolution No. 28155 that this action is exempt from the California Environmental Quality Act (CEQA) pursuant to Article II Section 2.i of the Los Angeles City CEQA Guidelines;
3. Authorize the Chief Executive Officer of the Los Angeles World Airports to execute the proposed agreement and return the Resolution to LAWA for further processing, including Council consideration.

SUMMARY

The Los Angeles World Airports (LAWA; Department) Board of Airport Commissioners (Board) requests approval to execute a proposed First Amendment (Amendment) to Contract No. DA-5609 (Contract) with Skanska-Flatiron, A Joint Venture (SFJV) to implement various design and construction initiatives for the multi-phased Airfield and Terminal Modernization Program (ATMP) – Roadway Improvements Project (Project) at Los Angeles International Airport (LAX). The initial

not-to-exceed funding approved for this phase was \$173.7 million. The proposed First Amendment increases the contract by \$1.298 billion to \$1.472 billion and authorizes work to proceed on portions of Phase 1 and 2 of the ATMP project. The term of the agreement remains unchanged and expires on May 29, 2030. In accordance with Charter Section 373, and Administrative Code Section 10.5(a), the Amendment requires Council approval because the total term of the Contract exceeds three years. The proposed contract is subject to City Attorney approval as to form. Our Office has reviewed and recommend approval.

BACKGROUND

The Airfield and Terminal Modernization Program or ATMP (Project) is one of many capital projects currently taking place at LAX. The Project is a comprehensive network of modernization developments that aim to mitigate airfield safety hazards, transform terminal designs, and improve the system of roadways. The Project, the largest and most comprehensive since the 1980s, will reconfigure roadways, both elevated and on-grade, to facilitate traffic flow in and around LAX.

Competitive Selection Process – On April 5, 2022, LAWA issued a draft Request for Proposals (RFP) for the progressive design-build of the Project. On August 17, 2022, three firms submitted proposals and were invited to participate in interviews. One firm was excluded from the process as they did not generate the minimum points required through the initial stages of the evaluation process. The remaining two firms were invited to submit cost proposals. The Department's evaluation panel determined that SFJV provided the best value procurement since the consultant demonstrated extensive knowledge, strong experience and expertise with similar airfield projects of such complexity and magnitude, as well as innovative thinking to timely deliver the project. Based on their determination, the panel deemed SFJV as the most qualified proposer to perform the scope of work described in the RFP.

Initial Contract – On January 19, 2023, the Board approved a LAWA staff report and request for approval to execute a seven year contract with SFJV to deliver the first of the two-phase progressive design-build Project. Phase 1 consists of mobilization, design, engineering, and pre-construction services, while Phase 2 addresses construction. At the conclusion of Phase 1, SFJV is to provide LAWA with numerous Component Guaranteed Maximum Price (CGMP)/Guaranteed Maximum Price (GMP) proposals for construction, commissioning, and closeout activities. Depending upon SFJV's performance on the first phase and the adequacy and cost of the construction proposals, LAWA could either negotiate the terms of the construction phase with SFJV and return to the Board for approval or solicit new bids for Phase 2 construction. The City Council subsequently approved the Contract on April 25, 2023 (C.F. 23-0394).

The Department and SFJV have since negotiated a not-to-exceed cost of construction and SFJV submitted their first Phase 2 CGMP package (CGMP1) to LAWA on February 14, 2025. The Department reviewed the package, negotiated with SFJV on the final CGMP1, and now requests approval of the Amendment that will incorporate the not-to-exceed cost for Phase 2 as well as the CGMP1 package into the Contract.

Proposed First Amendment – On April 17, 2025 and April 22, 2025, the Board approved a staff report requesting approval of a First Amendment to the Contract with SFJV. The Amendment establishes the not-to-exceed target value for design and construction of the Project and also includes the first CGMP package submitted under Phase 2. As part of Phase 1, the Department and SFJV negotiated the not-to-exceed cost of \$1.472 billion for the project based on estimates provided by SFJV and validated by LAWA. This new proposed not-to-exceed target is inclusive of both Phase 1 and Phase 2 costs. The increase of \$1.298 billion is the target value for construction activities under Phase 2 and includes the first CGMP package of \$429.9 million. The Board also approved a staff recommendation to appropriate funds in the amount of \$561.1 million. The request for an appropriation is not subject to approval by the Council and, therefore, not included in the recommendations of this report. There is no change to the term of the Contract which expires on May 29, 2030.

CGMPs – The Project is estimated to be completed in 2030. As state in the original Contract section above, SFJV will submit CGMP packages as part of Phase 2 for review and potential negotiation by the Department. Table 1 below details the anticipated CGMPs.

Table 1 – CGMP Packages

	Scope	Estimated Completion of Key Components	Cost (millions)
CGMP1	Early construction work including utility relocations, site demolition and preparation, drainage, retaining walls, temporary roadways, and piles and foundation for superstructure (bridge) construction.	May 2027	\$429.9
CGMP2	Superstructure, roadways, and associated ingress into the Central Terminal (CTA) Area	May 2028	TBD
CGMP3	Superstructure, roadways, and associated egress out of the CTA. Also includes landscaping and signal work associated with CGMP2.	May 2028 (CGMP2 elements) May 2030 (Egress elements)	TBD

The first package to be submitted under Phase 2 includes early construction work that will relocate utilities and prepare sites for future construction. Multiple design units were bid out with design completion at either 60 or 90 percent. SFJV held eight pre-bid meetings to solicit bids for work related to CGMP1. Based on the bids submitted at least 30 percent of the work will be performed by the local workforce. The Department reviewed the bids and negotiated with SFJV for the final cost of \$429.9 million.

Negative Traffic Impacts/Mitigation - The existing roadway system leading into and out of LAX's CTA will be reconfigured so commuters traveling in vehicles at LAX and the surrounding area of the airport may experience detours as a consequence of temporary lane and roadway closures during construction. SFJV and LAWA will coordinate with other agencies to develop detour plans

and work hour restrictions to safely perform the necessary construction and alleviate adverse effects to traffic circulation. As some of the work performed for CGMP3 occurs during the 2028 Olympic and Paralympic Games (LA 2028), Section SC-8 of the Amendment contains construction moratorium requirements that prohibits temporary lane closures or queuing on streets during that time. LAWA will continue to coordinate with stakeholders regarding this Project to ensure LAX, LA 2028, and construction operations are not impacted.

Alternatives Considered – There are no viable alternatives to the proposed Amendment. Approval of the Amendment is required to begin construction of the Project. Delaying approval or seeking another contractor to perform the work contained in the Amendment would result in Project components not being completed in time for LA 2028 and heavy congestion due to the anticipated increase in passengers arriving at LAX.

CITY COMPLIANCE

Small Business Enterprise (SBE), Local Business Enterprise (LBE), Local Small Business Enterprise (LSBE), and Disabled Veterans Business Enterprise (DVBE) Participation – The original contract contains language that establishes a 15 percent participation goal for DBEs. SFJV currently has a participation rate of 16.4 percent. In addition, SFJV has achieved a 47.1 percent local worker participation rate which exceeds the 30 percent goal set in the Project Labor Agreement for this project.

Charter Section 1022 – On December 16, 2021, the Board adopted the staff report which indicated that the contract was not subject to Charter Section 1022 provisions. The Department stated that given the complexity of the project, which includes bridge structures, as well as time constraints to deliver the project before LA 2028, City forces would not be able to perform the work required. In addition, Ordinance No. 187476 allows for the Department to use alternative project delivery methods for the ATMP and any related projects.

California Environmental Quality Act (CEQA) – Since the underlying project has previously been evaluated according to CEQA requirements, the approval of bids and execution of contracts are exempt from further review pursuant to Article II, Section 2.i of the Los Angeles CEQA Guidelines.

The proposed Amendment is subject to approval as to form by the City Attorney and includes provisions to ensure compliance with applicable City Ordinances, contracting, and insurance requirements. In accordance with Charter Section 373 and Administrative Code Section 10.5(a), the Amendment requires Council approval because the total term of the Contract exceeds three years. Our Office recommends approval.

FISCAL IMPACT STATEMENT

Approval of Resolution 28155 and the proposed First Amendment to Contract No. DA-5609 with Skanska-Flatiron, A Joint Venture to design and deliver the Airfield and Terminal Modernization Program – Roadway Improvements Project at Los Angeles International Airport for a total compensation not-to-exceed \$1,472,000,000, including the first Phase 2 Component Guaranteed

Maximum Price package of \$429,900,000, will have no impact on the City's General Fund. This project is partially grant funded by the Bipartisan Infrastructure Law grant funds from the Federal Aviation Administration (FAA) which has awarded \$129.3 million in grant funds. Funding for this project is programmed in LAWA's 2024-25 Capital Improvement Plan. The recommendations in this report comply with the Los Angeles World Airports' adopted Financial Policies.

Attachment 1 – Board of Airport Commissioners Report dated April 17, 2025 and April 22, 2025 Resolution No. 28155, and proposed First Amendment to DA-5609 with Skanska-Flatiron, A Joint Venture

MWS/PJH/JVW:JPQ:10250206



April 24, 2025

The Honorable Karen Bass
Mayor, City of Los Angeles
City Hall – Room 303
Los Angeles, CA 90012

ATTN: Legislative Coordinator

LAX

Van Nuys

City of Los Angeles

Karen Bass
Mayor

Board of Airport
Commissioners

Karim Webb
President

Matthew M. Johnson
Vice President

Vanessa Aramayo
Courtney La Bau
Victor Narro
Nicholas P. Roxborough
Valeria C. Velasco

John Ackerman
Chief Executive Officer

RE: Request to adopt and approve the First Amendment to Contract DA-5609 with Skanska-Flatiron, A Joint Venture

In accordance with Executive Directive No. 4, we are transmitting a copy of the specified board report for the request to adopt the following report; to approve the First Amendment to Contract DA-5609 with Skanska-Flatiron, A Joint Venture, increasing the contract authority to an amount not-to-exceed \$1,472,000,000 for the Airfield Terminal Modernization Program – Roadway Improvements Project at Los Angeles International Airport; to approve the first Component Guaranteed Maximum Price for Phase 2 in the amount of \$429,900,000; and to appropriate capital funds in the not-to-exceed amount of \$561,100,000 for said phase of the project.

City Council approval is required pursuant to Section 373 of the Los Angeles City Charter.

Sincerely,

A handwritten signature in black ink that reads "Becca Doten". The signature is stylized with a large, looped "B" and a horizontal line extending from the end.

Becca Doten
Chief of Staff

BD:MSA:ksf





23
Item Number

Report to the BOARD OF AIRPORT COMMISSIONERS

Approver:  Emery Molnar, Deputy Executive Director Airport Development Group	Meeting Date 4/17/2025			
	Needs Council Approval: <input checked="" type="checkbox"/> Y			
	Reviewed for/by	Date	Approval Status	By
Reviewer:  Brian C. Ostler, City Attorney	Finance	3/28/2025	<input checked="" type="checkbox"/> Y <input type="checkbox"/> NA	JS
	CEQA	2/11/2025	<input checked="" type="checkbox"/> Y	VW
	Procurement	2/20/2025	<input type="checkbox"/> Y <input checked="" type="checkbox"/> Cond	KK
	Guest Experience	3/20/2025	<input checked="" type="checkbox"/> Y	TB
	Strategic Planning	2/13/2025	<input checked="" type="checkbox"/> Y	BNZ
 John Ackerman, Chief Executive Officer				

SUBJECT

Request to adopt the following report; to approve the First Amendment to Contract DA-5609 with Skanska-Flatiron, A Joint Venture, increasing the contract authority to an amount not-to-exceed \$1,472,000,000 for the Airfield Terminal Modernization Program – Roadway Improvements Project at Los Angeles International Airport; to approve the first Component Guaranteed Maximum Price for Phase 2 in the amount of \$429,900,000; and to appropriate capital funds in the not-to-exceed amount of \$561,100,000 for said phase of the project.

DISCUSSION

1. Purpose

The proposed First Amendment and approval of the first Phase 2 Component Guaranteed Maximum Price (CGMP1) enables key procurement and construction activities that are critical to major roadway segments of the Airfield and Terminal Modernization Project (ATMP) - Roadway Improvements Project at Los Angeles International Airport (LAX), in advance of the 2028 Summer Olympic and Paralympic Games.

2. Prior Related Actions/History of Board Actions

- December 15, 2022 - Resolution No. 27655 (DA-5606)**

The Board of Airport Commissioners (Board) awarded a seven-year contract to HDR Engineering, Inc. in the not-to-exceed amount of \$138.5 million and appropriated \$83.5

million to provide Project Management and Construction Management services for Projects related to the ATMP Roadway Improvements Project at LAX.

- **January 19, 2023 - Resolution No. 27668 (DA-5609)**

The Board awarded a seven-year Progressive Design-Build (DB) contract to Skanska Flatiron, A Joint Venture (SFJV), in the not-to-exceed amount of \$173.7 million, for Phase 1 of the ATMP- Roadway Improvements Project at LAX, and appropriated capital funds in the amount of \$192.2 million.

- **February 15, 2024 - Resolution No. 27906**

The Board approved a cooperative agreement between Los Angeles World Airports (LAWA) and the California Department of Transportation, and appropriated capital funds in a not-to-exceed amount of \$12 million for support and dedicated staff services from various Authorities Having Jurisdiction over ATMP - Roadway Improvements Project at LAX.

- **January 16, 2025 - Resolution No. 28088**

The Board approved and appropriated capital funds in the not-to-exceed amount of \$14 million for the cost to relocate or remove third-party owned facilities in conflicts with the ATMP – Roadway Improvements Project at LAX. The Board also authorized the Chief Executive Officer, or designee, to enter into reservation of rights agreement(s), if necessary, with all third-party facility owners to relocate underground and above ground facilities in conflicts with the ATMP – Roadway Improvements Project at LAX.

3. Background

The ATMP consists of several primary elements, including airfield improvements that would enhance operational management and safety within the north airfield, new terminal facilities that would upgrade passenger processing capabilities and enhance the passenger experience, and an improved system of roadways to better access the Central Terminal Area (CTA) and reduce congestion in and around LAX.

This project will construct a comprehensive network of roadway systems that will separate and remove airport-related (i.e., CTA-related) traffic from the local roadway system (e.g., Sepulveda Boulevard), and improve access to the CTA, LAX Economy Parking, and new Ground Transportation Center that is linked to the new Automated People Mover system.

This project is the largest and most comprehensive roadway construction undertaken at LAX since the addition to the upper-level roadways, completed nearly 40 years ago in preparation for the 1984 Summer Olympics.

Inclusivity & Workforce Development

Los Angeles World Airports established a 15 percent Disadvantaged Business Enterprise (DBE) participation goal for this project. Skanska Flatiron, A Joint Venture, is currently at 16.4 percent based on dollars paid to date for authorized task orders. This level of participation is achieved through the participation of 22 DBE firms.

Skanska Flatiron, A Joint Venture, has achieved 47.12 percent local worker participation, exceeding the Project Labor Agreement (PLA) 30 percent local worker hiring goal required for pre-construction scope of work. Female workers performed 14.24 percent of total project hours, which far exceeds the approximate three percent regional participation average.

Skanska Flatiron, A Joint Venture, actively engages in DBE outreach by engaging in 145 outreach events with LAWA, other agencies, and business and trade organizations, including the National Association of Minority Contractors, National Association of Women in Construction, Regional Hispanic Chamber of Commerce, Women's Transportation Seminar, Associated General Contractors, United Contractors, and project specific events such as LAWA's industry forums and SFJV's DBE Open House events.

Eight pre-bid meetings were held to solicit bids for Phase 2 CGMP1 work, and SFJV is tracking to meet and exceed the 15 percent DBE participation. Based on the project schedule and anticipated craft work, SFJV estimated a total of 1.9 million work hours will be performed by SFJV and its subcontractors through the project term in the table below. Local workers will perform a minimum of 30 percent of the projected hours. Skanska Flatiron, A Joint Venture, actively participates in the monthly PLA Local Labor Inclusion meetings hosted by the PLA Administrator, and quarterly HireLAX Contractor Open House events to meet and interview HireLAX graduates to perform project work. Upon award of the Phase 2 CGMP1, SFJV will have assigned local worker coordinators to ensure compliance with the PLA and local worker hiring requirements for all subcontractor tiers.

	2025	2026	2027	2028	2029	2030	Totals	
Carpenter	4,927	72,227	174,205	44,772	32,004	6,539	334,674	PRIME
Cement Mason	2,210	13,089	26,072	7,191	7,548	4,914	61,023	
Laborer	35,223	122,204	158,038	108,886	103,439	79,666	607,457	
Operator	12,522	47,353	55,647	28,755	25,145	16,861	186,283	
Teamster	988	2,327	3,211	2,236	2,206	998	11,966	
Carpenter		7,065	7,065	7,065	7,065		28,259	SUBS
Laborer	66,656	66,656	66,656	66,656	66,656	66,656	399,938	
Operator	24,570	24,570	24,570	24,570	24,570	24,570	147,420	
Electrician		5,818	11,636	11,636	17,455		46,545	
Ironworker		20,418	20,418	20,418	20,418		81,672	
Teamster	3,520	10,138	10,138	10,138	10,138		44,070	
Totals	150,616	391,865	557,657	332,323	316,643	200,204	1,949,309	

Skanska Flatiron, a Joint Venture, participates in youth Science, Technology, Engineering, Art and Mathematics (STEAM) engagement activities to expose local youth to careers in aviation-related careers.. The SFJV team members participated in the ImpactLAX Youth Program events, including Youth Summer STEAM Program, and participated in National Engineers Week. They also plan to hire a summer intern from the high school Architecture, Construction, and Engineering Students Pathway Program.

Los Angeles World Airports' Economic Impact Team (EIT) meets monthly with SFJV to monitor compliance and outcomes associated with this project. Skanska Flatiron, A Joint Venture, is working on its Inclusivity and Workforce Development Plan and will submit it to EIT for review and approval prior to the award of Phase 2 CGMP1 project work. The inclusivity plan establishes the approach, schedule, and compliance methodology to achieve the contract requirements.

4. Current Action/Rationale

Phase 1 Design of the Progressive DB contract with SFJV established the base scope and sequence for the project components of the ATMP - Roadway Improvements Project.

The Notice to Proceed was issued in May 2023 to SFJV to start Phase 1 Design of the Roadway Improvements Project. During this phase, LAWA and SFJV collaborated with various stakeholders and Agencies Having Jurisdiction, developed and agreed on design criteria, developed various roadway alignments, and progressed the full design of the preferred roadway improvements alignment. The SFJV also developed a program schedule with subcontracting and procurement strategies to provide best value to LAWA and to deliver major new roadway components prior to the 2028 Summer Olympics. In addition, staff and SFJV continuously monitor the costs and risks with the design progression. Independent estimates of 30 percent, 60 percent, and 90 percent milestones, respectively, were prepared by staff and SFJV to support key decisions.

The First Amendment establishes a not-to-exceed target value to design and construct the ATMP – Roadway Improvements Project at LAX.

Additionally, this first Phase 2 CGMP1 package is critical to meeting LAWA's goal of starting construction on the project and meeting major construction milestones. Phase 2 CGMP1 comprises multiple design units/packages that were bid out with design completion at either 60 percent or 90 percent in accordance with contract requirements. All bids for the packages were received on or before February 4, 2025. The SFJV submitted their first CGMP1 proposal on February 14, 2025. Staff reviewed and validated all the bids, negotiated with SFJV for their performed work, and reached an agreement with SFJV on the final CGMP1, which is presented for Board approval.

Phase 2 CGMP1 Scope

Phase 2 CGMP1 includes demolition, excavations, utility relocations, construction of drainage, retaining walls, bridge abutments, cast-in-drilled hole (CIDH) piles, early procurement of materials, temporary roadways, etc. Multiple packages were designed, priced, and are ready to be constructed upon Board approval.

Project Cost

The cost for Phase 2 CGMP1 is \$429.9 million. This brings the total project cost for the ATMP - Roadway Improvements Project to \$862.8 million, which includes SFJV's contract costs, LAWA's owner's contingency, and LAWA owner's soft and other associated costs.

The anticipated NTP date for Phase 2 CGMP1 will allow for the advancement of the main roadway segments into LAX prior to the 2028 Summer Olympics. Staff will return to the Board and request approval for future CGMPs for roadway construction and for appropriation of additional owner associated funds after design development for the Main Works scope is completed and CGMPs are negotiated and finalized.

5. Fiscal Impact

This project is included in LAWA's overall 2024 Investment Plan and is programmed in the Capital Improvement Plan (CIP) with a budget of \$862.8 million for Phase 1 Design and

Phase 2 Construction, which includes hard and owner-carried costs, as well as owner's contingency. As this request is within the current plans, adoption of this item will not result in an increase in the CIP.

This project is partially grant-funded by the Federal Aviation Administration's (FAA) Airport Terminal Program and Airport Infrastructure Grant under the Bipartisan Infrastructure Law, also known as Infrastructure Investment and Jobs Act. Currently, LAWA has received grant commitments in the amount of \$129.3 million and has requested additional FAA grant funding for the Phase 2 construction work.

When the completed roadway improvements are put into service, those costs that are not grant-funded will be recovered through landing fees, terminal rates and charges, and non-aeronautical revenues.

6. Alternatives Considered

- ***Take No Action***

Taking no action is not recommended. Without the commencement of Phase 2 CGMP1 of the ATMP – Roadway Improvements Project, the anticipated completion of the advancement of new roadways will be delayed beyond the date Los Angeles welcomes the 2028 Summer Olympics. With the anticipated increase in airport traffic, the ingress and egress traffic to the airport will be heavily congested, creating an unwanted and unwelcoming experience for travelers and the community.

APPROPRIATIONS

Staff request that funds, in the not-to-exceed amount of \$561,100,000, be appropriated and allocated from LAX Revenue Fund to WBS Element 1.21.24A – 700 (ATMP Roadway Improvements).

STANDARD PROVISIONS

The Board is hereby requested to adopt staff's determination that this item, involving any activity (approval of bids, execution of contracts, allocation of funds, etc.) for which the underlying project has previously been evaluated for environmental significance and processed according to the requirements of California Environmental Quality Act (CEQA) is exempt from further review pursuant to Article II, Section 2.i of the Los Angeles City CEQA Guidelines. The Airfield and Terminal Modernization Project Environmental Impact Report (EIR) was certified by the Board of Airport Commissioners for this project on October 7, 2021 (Resolution 27351) and an Addendum to the EIR was completed December 2024.

The Board is hereby further requested to authorize the Chief Executive Officer, or designee, to execute said First Amendment with Skanska-Flatiron, A Joint Venture (SFJV) subject to approval by the Los Angeles City Council and approval as to form by the City Attorney.

The Board is hereby further authorize the Chief Executive Officer, or designee, to approve and execute change orders, provided that, for prior execution of any change order in excess of \$5,000,000, the Board of Airport Commissioners shall first have reviewed and authorized the

execution thereof, and such authorization shall become final pursuant to the Charter Section 245.

Actions taken on this item by the Board of Airport Commissioners will become final pursuant to the provisions of Los Angeles City Charter Section 373.

April 22, 2025

The Honorable City Council
of the City of Los Angeles
(via email)

Subject: First Amendment to Contract DA-5609 with Skanska-Flatiron, a Joint Venture

LAX

Van Nuys

City of Los Angeles

Karen Bass
Mayor

Board of Airport
Commissioners

Karim Webb
President

Matthew M. Johnson
Vice President

Vanessa Aramayo
Courtney La Bau
Victor Narro
Nicholas P. Roxborough
Valeria C. Velasco

John Ackerman
Chief Executive Officer

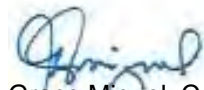
Enclosed for your consideration is the First Amendment to Contract DA-5609 with Skanska-Flatiron, a Joint Venture, that was approved by the Board of Airport Commissioners at its April 17, 2025 meeting. There is no impact to the General Fund.

RECOMMENDATIONS FOR CITY COUNCIL:

1. Concur with said Board's adoption of staff's determination that the item is exempt from California Environmental Quality Act (CEQA) requirements pursuant to Article II, Section 2.i of the Los Angeles City CEQA Guidelines; and
2. Approve the First Amendment to Contract DA-5609 with Skanska-Flatiron, a Joint Venture, to increase the contract authority to an amount not to exceed \$1,472,000,000, covering the Airfield Terminal Modernization Program – Roadway Improvements Project at Los Angeles International Airport; and
3. Further concur with said Board's action on April 17, 2025, by Resolution 28155, authorizing the Los Angeles World Airports Chief Executive Officer, or designee, to execute said First Amendment to Contract DA-5609 with Skanska-Flatiron, a Joint Venture.

This document and its attachments are advisory only and do not constitute a complete and official submittal to the City Council. The official submittal, including this document and its attachments, will be submitted electronically to the City Council and the Council File Management System pursuant to Charter Section 373 via the City Clerk's website when the file is complete.

Very truly yours,



Grace Miguel, Commission Executive Assistant II
BOARD OF AIRPORT COMMISSIONERS

Enclosures

cc: CAO (Airport Analyst), e-file
CLA (Airport Analyst), e-file



RESOLUTION NO. 28155

WHEREAS, on recommendation of Management, there were presented for approval, First Amendment to Contract DA-5609 with Skanska-Flatiron, a Joint Venture, to increase the contract authority to an amount not to exceed \$1,472,000,000, covering the Airfield Terminal Modernization Program – Roadway Improvements Project at Los Angeles International Airport; the first Component Guaranteed Maximum Price for Phase 2 in the amount of \$429,900,000; and appropriation of not to exceed \$561,100,000 for said phase of the project; and

LAX

Van Nuys

City of Los Angeles

Karen Bass
Mayor

**Board of Airport
Commissioners**

Karim Webb
President

Matthew M. Johnson
Vice President

Vanessa Aramayo
Courtney La Bau
Victor Narro
Nicholas P. Roxborough
Valeria C. Velasco

John Ackerman
Chief Executive Officer

WHEREAS, the Airfield Terminal Modernization Program (ATMP) at Los Angeles International Airport (LAX) will construct a comprehensive network of roadway systems that will separate and remove airport-related (i.e., Central Terminal Area (CTA)-related) traffic from the local roadway system (e.g., Sepulveda Boulevard), and improve access to the CTA, LAX Economy Parking, and new Ground Transportation Center that is linked to the new Automated People Mover system; and

WHEREAS, the Phase 1 Design of the progressive design-build contract with Skanska-Flatiron, a Joint Venture (SFJV) established the base scope and sequence for the project components of the ATMP – Roadway Improvements Project; and

WHEREAS, the Notice to Proceed (NTP) was issued in May 2023 to SFJV to start Phase 1 Design of the Roadway Improvements Project. During said phase, Los Angeles World Airports (LAWA) and SFJV collaborated with various stakeholders and Agencies Having Jurisdiction, developed and agreed on design criteria, developed various roadway alignments, and progressed the full design of the preferred roadway improvements alignment. SFJV also developed a program schedule with subcontracting and procurement strategies to provide best value to LAWA and to deliver major new roadway components prior to the 2028 Summer Olympics. In addition, staff and SFJV continuously monitor the costs and risks with the design progression. Independent estimates of 30%, 60%, and 90% milestones, respectively, were prepared by staff and SFJV to support key decisions; and

WHEREAS, the First Amendment establishes a not-to-exceed target value to design and construct the ATMP – Roadway Improvements Project. Additionally, the first Component Guaranteed Maximum Price for Phase 2 (Phase 2 CGMP1) package is critical to meeting LAWA's goal of starting construction on the project and meeting major construction milestones. Phase 2 CGMP1 comprises multiple design units/packages that were bid out with design completion at either 60% or 90% in accordance with contract requirements; and

WHEREAS, Phase 2 CGMP1 includes demolition, excavations, utility relocations, construction of drainage, retaining walls, bridge abutments, cast-in-drilled hole piles, early procurement of materials, temporary roadways, etc. Multiple packages were designed, priced, and are ready to be constructed upon Board approval; and

WHEREAS, LAWA established a 15% Disadvantaged Business Enterprise (DBE) participation goal for the project. SFJV is currently at 16.4% based on dollars paid to date for authorized task orders. Said level of participation is achieved through the participation of 22 DBE firms; and

WHEREAS, SFJV has achieved 47.12% local worker participation, exceeding the Project Labor Agreement (PLA) 30% local worker hiring goal required for pre-construction scope of work. Female workers performed 14.24% of total project hours, which far exceeds the approximate 3% regional participation average; and



WHEREAS, eight (8) pre-bid meetings were held to solicit bids for the Phase 2 CGMP1 work, and SFJV is tracking to meet and exceed the 15% DBE participation. Based on the project schedule and anticipated craft work, SFJV estimated that a total of 1.9 million work hours will be performed by SFJV and its subcontractors through the project term in the following table:

	2025	2026	2027	2028	2029	2030	Totals	
Carpenter	4,927	72,227	174,205	44,772	32,004	6,539	334,674	PRIME
Cement Mason	2,210	13,089	26,072	7,191	7,548	4,914	61,023	
Laborer	35,223	122,204	158,038	108,886	103,439	79,666	607,457	
Operator	12,522	47,353	55,647	28,755	25,145	16,861	186,283	
Teamster	988	2,327	3,211	2,236	2,206	998	11,966	
Carpenter		7,065	7,065	7,065	7,065		28,259	SUBS
Laborer	66,656	66,656	66,656	66,656	66,656	66,656	399,938	
Operator	24,570	24,570	24,570	24,570	24,570	24,570	147,420	
Electrician		5,818	11,636	11,636	17,455		46,545	
Ironworker		20,418	20,418	20,418	20,418		81,672	
Teamster	3,520	10,138	10,138	10,138	10,138		44,070	
Totals	150,616	391,865	557,657	332,323	316,643	200,204	1,949,309	; and

WHEREAS, local workers will perform a minimum of 30% of the projected hours. SFJV actively participates in the monthly PLA Local Labor Inclusion meetings hosted by the PLA Administrator, and quarterly HireLAX Contractor Open House events to meet and interview HireLAX graduates to perform project work. Upon award of the Phase 2 CGMP1, SFJV will have assigned local worker coordinators to ensure compliance with the PLA and local worker hiring requirements for all subcontractor tiers; and

WHEREAS, LAWA's Economic Impact Team meets monthly with SFJV to monitor compliance and outcomes associated with the project. SFJV is working on and will submit its Inclusivity and Workforce Development Plan to EIT for review and approval prior to the award of Phase 2 CGMP1 project work. The inclusivity plan establishes the approach, schedule, and compliance methodology to achieve the contract requirements; and

WHEREAS, the cost for Phase 2 CGMP1 of \$429,900,000 brings the total project cost for the ATMP – Roadway Improvements Project to \$862.8 million, which includes SFJV's contract costs, LAWA's owner's contingency, and LAWA owner's soft and other associated costs; and

WHEREAS, the anticipated NTP date for Phase 2 CGMP1 will allow for the advancement of the main roadway segments into LAX prior to the 2028 Summer Olympics. Staff will return to the Board of Airport Commissioners (Board) and request approval for future CGMPs for roadway construction and for appropriation of additional owner associated funds after design development for the Main Works scope is completed and CGMPs are negotiated and finalized; and

WHEREAS, the ATMP Environmental Impact Report (EIR) was certified by the Board for the project on October 7, 2021 (Resolution 27351) and an Addendum to the EIR was completed in December 2024; and

WHEREAS, actions taken on this item by the Board will become final pursuant to the provisions of Los Angeles City Charter Section 373;

NOW, THEREFORE, BE IT RESOLVED that the Board of Airport Commissioners adopted the Staff Report; further adopted staff's determination that this item, involving any activity (approval of bids, execution of contracts, allocation of funds, etc.) for which the underlying project has previously been evaluated for environmental significance and processed according to the requirements of

California Environmental Quality Act (CEQA) is exempt from further review pursuant to Article II, Section 2.i of the Los Angeles City CEQA Guidelines; approved the First Amendment to Contract DA-5609 with Skanska-Flatiron, a Joint Venture, to increase the contract authority to an amount not to exceed \$1,472,000,000, covering the Airfield Terminal Modernization Program – Roadway Improvements Project at Los Angeles International Airport; further approved the first Component Guaranteed Maximum Price for Phase 2 of said project in the amount of \$429,900,000; further approved appropriation and allocation of not to exceed \$561,100,000, from LAX Revenue Fund to WBS Element 1.21.24A – 700 (ATMP Roadway Improvements), for said phase of the project; authorized the Chief Executive Officer, or designee, to execute said First Amendment to Contract DA-5609 with Skanska-Flatiron, a Joint Venture, subject to approval by the Los Angeles City Council and approval as to form by the City Attorney; and further authorized the Chief Executive Officer, or designee, to approve and execute change orders, provided that, prior to execution of any change order in excess of \$5,000,000, the Board of Airport Commissioners shall first have reviewed and authorized execution thereof and such authorization shall become final pursuant to the Charter Section 245.

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I hereby certify that this Resolution No. 28155 is true and correct, as adopted by the Board of Airport Commissioners at its Special Meeting held on Thursday, April 17, 2025.



Grace Miguel – Secretary
BOARD OF AIRPORT COMMISSIONERS

**FIRST AMENDMENT TO DESIGN-BUILD CONTRACT NUMBER DA-5609
BETWEEN THE CITY OF LOS ANGELES AND SKANSKA-FLATIRON A JOINT VENTURE
FOR THE AIRFIELD AND TERMINAL MODERNIZATION PROGRAM (ATMP) LANDSIDE
IMPROVEMENTS PROJECT AT LOS ANGELES INTERNATIONAL AIRPORT**

THIS **FIRST AMENDMENT** TO CONTRACT NUMBER DA-5609 ("Contract Amendment") is made and entered into as of this ____ day of _____, 2025, by and between the **CITY OF LOS ANGELES** ("City"), a municipal corporation, acting by order of and through its Board of Airport Commissioners ("Board") of the Department of Airports (also known as Los Angeles World Airports or "LAWA"), and **SKANSKA-FLATIRON A JOINT VENTURE** ("Design-Builder"). The City and Design-Builder are collectively referred to herein as the "Parties."

RECITALS

WHEREAS, City and Design-Builder entered into Los Angeles World Airports Contract Number DA-5609 (the "Contract") for the design and construction of the project entitled "Airfield and Terminal Modernization Program ("ATMP") Landside Improvements" (or "ATMP Roadway Improvements") (hereinafter referred to as "Project") at Los Angeles International Airport ("Airport") on April 26, 2023; and

WHEREAS, the Contract, as drafted, requires Design-Builder to perform design/pre-construction and construction services for the Project under a two-phase Progressive Design-Build Delivery Method: (a) Phase 1 – Design and Pre-Construction Services, Mobilization, and Early Enabling Works, which includes the development and negotiation of a Guaranteed Maximum Price (GMP) or Component Guaranteed Maximum Price (cGMP) Proposals for Phase 2 (construction & activation) for each Project Component; and (b) Phase 2 – the Construction Documents and Construction Phase, consisting of design completion, final permitting, procurement of materials, construction, commissioning and closeout activities; and

WHEREAS, the Contract, as drafted, provides that during Phase 1: (a) Design-Builder will submit a Guaranteed Maximum Price (GMP) or Component Guaranteed Maximum Price (cGMP) Proposals for Phase 2 of the Project to City; (b) the Parties will negotiate and finalize the GMP or cGMP(s); (c) the finalized negotiated GMP or cGMP(s) will be submitted to the Board and City Council for approval in order to appropriate the required funds and execute Phase 2 of the Project; and (d) Section 4.0 of the Contract titled "Contract Price" will be amended to include the costs of Phase 2 once an agreed upon GMP or cGMP for that Phase has been negotiated; and

WHEREAS, Design-Builder has nearly completed design and pre-construction activities associated with Phase 1 of the Project; and

WHEREAS, the Parties wish to clarify that the preparation of Construction Documents and Permitting is a part of Phase 1 activities;

WHEREAS, the Parties wish to break down Phase 2 of the Project into three (3) components, that are generally broken up as follows: (a) Phase 2 – cGMP1: multiple utility relocations, project site work and demolition, temporary traffic configurations, bridge foundations, and substructure work; (b) Phase 2 – cGMP2: elevated roadway superstructures, pedestrian bridges superstructure and conveyance, and communication utilities; and (c) Phase 2 – cGMP3: finalization of structures and roadways, permanent traffic configurations, traffic signals, project site restoration, project landscaping, and close out of the Project; and

WHEREAS, City wishes to increase the total not-to-exceed amount from One Hundred Seventy-Three Million and Seven Hundred Thousand Dollars (\$173,700,000.00) to a not-to-exceed amount of One Billion Four Hundred Seventy-Two Million Dollars (\$1,472,000,000) to include the services to be provided under Phase 2 of the Project.

NOW, THEREFORE, in consideration of the premises, and of the terms, covenants and conditions hereinafter contained to be kept and performed by the respective parties hereto, the Parties do mutually agree that the Contract is HEREBY AMENDED AS FOLLOWS:

CONTRACT AMENDMENT

Amendment Section 1. Section 1 of the Contract shall be amended and restated in its entirety to read as follows:

It is expressly understood and agreed that this Contract, Cost Reimbursable Guidelines (Exhibit A), First Source Hiring Program (Exhibit B), General Conditions (Exhibit C), Project Requirements (Exhibit D), Plans and Specifications (Exhibit E - located in Electronic Data Room), Project Labor Agreement (Exhibit F), Special Conditions (Exhibit G), Fee Matrix (Exhibit H), cGMP Work Package 1 (Exhibit I), Federal Requirements, Administrative Requirements, Disadvantaged Business Enterprises commitments, and any document referenced in said documents, are

hereby incorporated by this reference as though specifically set forth herein and shall constitute, and are hereby made, a part of this Contract (hereinafter referred to as the "Contract Documents"), and each of the Parties does hereby expressly covenant and agree to carry out and fully perform each and all of the provisions of said documents upon its part to be performed. Any subsequent cGMP Work Package that the Parties negotiate and agree to shall be incorporated via Change Order into the Contract as a Contract Document and shall be marked with the next available exhibit letter. It is further expressly understood and agreed that LAWA's "Request for Proposals" ("RFP") (including its Administrative Requirements, Attachments, and Addendums) is, by this reference, incorporated into and made a material part of this Contract as though fully set forth herein. Design-Builder expressly acknowledges that this Contract is based upon the performance requirements contained in the RFP.

Amendment Section 2. Section 2.1 of the Contract shall be amended and restated in its entirety to read as follows:

Design-Builder agrees to furnish all labor, services, materials and equipment, and to perform all work required as outlined in the Contract Documents hereto, to provide Phase 1 Design and Pre-Construction Services, Mobilization, Early Enabling Works, Construction Documents, and Permitting ("Phase 1") and Phase 2 Construction ("Phase 2"), in a final and finished state, in strict compliance with the Contract Documents.

Amendment Section 3. Section 2.2 of the Contract shall be amended and restated in its entirety to read as follows:

Following the execution of this Contract, LAWA and Design-Builder shall negotiate and agree to one or more Task Orders under Section 5.0 below for Design-Builder to provide Phase 1 Design and Pre-Construction Services, Mobilization, Early Enabling Works, Construction Documents, and Permitting. Upon LAWA and Design-Builder agreeing in writing and signing any Task Order pursuant to Section 5.4 below, LAWA shall issue Design-Builder with a Notice to Proceed ("NTP") for Design-Builder to undertake the agreed scope of work. Thereafter, LAWA and Design-Builder may negotiate and agree to: (i) further Task Orders for additional

Phase 1 services; and/or (ii) one or more guaranteed maximum price work packages ("GMP Work Package") or Component Guaranteed Maximum Price ("cGMP Work Package") for Phase 2. Phase 2 will include construction and construction administration. Upon LAWA and Design-Builder agreeing in writing to a Contract amendment for Phase 2 cGMP Work, LAWA shall issue Design-Builder with an NTP for Design-Builder to undertake the agreed scope of work relating to Phase 2 – cGMP1. Upon finalizing negotiations for Phase 2 – cGMP2 and Phase 2 – cGMP3, and upon subsequent approval by the Board of the appropriation of funds for Phase 2 - cGMP2 and Phase 2 - cGMP3, respectively, LAWA shall issue NTP to the Design-Builder for Phase 2 – cGMP2 and Phase 2 – cGMP3 prior to Design-Builder undertaking the agreed scope of work relating to Phase 2 – cGMP2 and Phase 2 – cGMP3.

2.2(a) For the purposes of Section 2.2(b) below:

"Completed Design Work Product" means: (i) Design Work Product that has been signed and sealed with a professional engineer's stamp for and on behalf of Design-Builder; and (ii) all other Design Work Product that has been accepted and acknowledged by both parties in writing as having been fully performed as of the date of termination under GC-37; and

"Incomplete Design Work Product" means all Design Work Product other than Completed Design Work Product, including any work that remains in a state of partial completion as of the date of termination under GC-37.

2.2(b) If LAWA exercises its termination for convenience rights under GC-37 of the General Conditions for any existing Task Order then, without limiting GC-14 and GC-37 of the General Conditions:

- (i) LAWA may take possession of all Design Work Product created under the relevant Task Order;
- (ii) Design-Builder's liability for any use of the Completed Design Work Product after the date of

(such termination shall be as established by the terms of this Contract; and

(iii) Design-Builder shall have no liability, except for gross negligence, willful misconduct, fraud, or any other claim that cannot be limited under applicable law, for any use of any Incomplete Design Work Product after the date of such termination, including in circumstances where LAWA continues to make use of the Incomplete Design Work Products on the Project through engaging a consultant to finish the Phase 1 services and/or engaging a separate design-builder to undertake the Phase 2 services.

Amendment Section 4. Section 4.0 of the Contract shall be amended and restated in its entirety to read as follows:

(For all labor, all materials, all equipment and all services rendered, for all costs direct or indirect, and for all expenses incurred by Design-Builder pursuant to this Contract, and upon satisfactory completion of said Project in a final finished form consistent with the intent of the Contract Documents, the amount that LAWA may pay to the Design-Builder under the terms of this Contract, for Phase 1 Design and Pre-Construction Services, Mobilization, Early Enabling Works, Construction Documents, and Permitting and for Phase 2- cGMP1: Multiple Utility Relocations, Project Site Clearing and Demolition, Temporary Traffic Configurations, Bridge Foundations, and Substructure Work, Phase 2- cGMP2: Elevated Roadway Superstructures, Pedestrian Bridges, and Communication Utilities, and Phase 2 – cGMP3: Finalization of Permanent Traffic Configurations, Traffic Signals, Project Site Restoration, Project Landscaping, and Close Out of the Project is not-to-exceed One Billion Four Hundred Seventy-Two Million Dollars (\$1,472,000,000), pursuant to the Contract Documents.

(**Amendment Section 5.** Exhibit D – Project Requirements and Exhibit G – Special Conditions attached to the Contract are hereby deleted in their entirety and substituted with Exhibit D – R1 – Project Requirements and Exhibit G – R1 – Special Conditions attached hereto.

Amendment Section 6. Except as specifically provided herein, this Contract Amendment shall not, in any manner, alter, change, modify or affect any of the rights, privileges, duties or obligations of either of the parties hereto, under, or by reason of said Contract, as amended.

Execution. This Contract Amendment and any other document necessary for the consummation of the transaction contemplated by this Contract Amendment may be executed in counterparts, including counterparts that are manually executed and counterparts that are in the form of electronic records and are electronically executed. An electronic signature means a signature that is executed by symbol attached to or logically associated with a record and adopted by a party with the intent to sign such record, including facsimile or e-mail signatures. All executed counterparts shall constitute one Contract Amendment, and each counterpart shall be deemed an original. The Parties hereby acknowledge and agree that electronic records and electronic signatures, as well as facsimile signatures, may be used in connection with the execution of this Contract Amendment and electronic signatures, facsimile signatures or signatures transmitted by electronic mail in so-called PDF format shall be legal and binding and shall have the same full force and effect as if a paper original of this Contract Amendment had been delivered that had been signed using a handwritten signature. All parties to this Contract Amendment (i) agree that an electronic signature, whether digital or encrypted, of a party to this Contract Amendment is intended to authenticate this writing and to have the same force and effect as a manual signature; (ii) intended to be bound by the signatures (whether original, faxed, or electronic) on any document sent or delivered by facsimile or electronic mail or other electronic means; (iii) are aware that the other party(ies) will rely on such signatures; and, (iv) hereby waive any defenses to the enforcement of the terms of this Contract Amendment based on the foregoing forms of signature. If this Contract Amendment has been executed by electronic signature, all parties executing this document are expressly consenting, under the United States Federal Electronic Signatures in Global and National Commerce Act of 2000 ("E-SIGN") and the California Uniform Electronic Transactions Act ("UETA") (California Civil Code §1633.1 et seq.), that a signature by fax, e-mail, or other electronic means shall constitute an Electronic Signature to an Electronic Record under both E-SIGN and UETA with respect to this specific transaction.

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IN WITNESS WHEREOF, City has caused this Contract Amendment to be executed, by the Chief Executive Officer of LAWA, and Design-Builder has caused the same to be executed by its duly authorized officers and its corporate seal to be hereunto affixed, all as of the day and year first hereinabove written.

APPROVED AS TO FORM:
Hydee Feldstein Soto, City Attorney

Date: _____

By: _____
Deputy City Attorney

ATTEST:

By: _____
Secretary (Signature)

Print Name

[SEAL]

CITY OF LOS ANGELES

By signing below, the signatory attests that they have no personal, financial, beneficial or familial interest in this Contract.

By: _____
John Ackerman
Chief Executive Officer
Los Angeles World Airports

By: _____
Tatiana Starostina
Chief Financial Officer
Los Angeles World Airports

SKANSKA-FLATIRON A JOINT VENTURE

By:  _____
Signature

James Bailey

Print Name

President

Print Title

EXHIBIT D – R1:

Project Requirements

PROJECT REQUIREMENTS

Table of Contents

Number	Title
PR 01	SCOPE OF WORK
PR 02	PROJECT MANAGEMENT AND COORDINATION
PR 03	TRAFFIC COORDINATION, CONSTRUCTION AREA ACCESS, AND SECURITY
PR 04	SCHEDULING OF THE WORK
PR 05	ALLOWANCES
PR 06	CONSTRUCTION SITE OFFICES/FIELD FACILITIES AND LAYDOWN AREA
PR 07	UTILITIES
PR 08	REQUESTS FOR INFORMATION
PR 09	SUBMITTAL PROCEDURES
PR 10	PRODUCTS, MATERIAL, AND EQUIPMENT SUBSTITUTIONS
PR 11	DESIGN MANAGEMENT
PR 12	THIRD PARTY COORDINATION
PR 13	QUALITY ASSURANCE
PR 14	QUALITY CONTROL PROGRAM
PR 15	SAFETY
PR 16	SURVEYING
PR 17	PORTABLE CONCRETE BATCH PLANT AND CRUSHER
PR 18	ENVIRONMENTAL
PR 19	REMOVAL AND DISPOSAL OF CONTAMINATED MATERIALS
PR 20	SUSTAINABILITY REQUIREMENTS
PR 21	BUILDING INFORMATION MODEL (BIM) AND VIRTUAL DESIGN AND CONSTRUCTION (VDC) COORDINATION
PR 22	GUARANTEED MAXIMUM PRICE (GMP) PROPOSALS
PR 23	NOT USED
PR 24	PHOTOGRAPHS AND VIDEO DOCUMENTATION
PR 25	PROJECT RECORD DOCUMENTS
PR 26	COMMISSIONING AND TRAINING
PR 27	PROJECT CLOSEOUT

PR-01 SCOPE OF WORK

Table of Contents

1. General.....	2
2. Project Description.....	2
3. Scope of Work.....	6
4. Policies and Procedures	24



PR-01 SCOPE OF WORK

1. GENERAL

- A. DESIGN-BUILDER shall provide comprehensive Planning, Design, Preconstruction and Construction services, including the furnishing of all labor, materials, supervision, tools, equipment, services, and incidentals necessary to prescribe and provide for the complete and finished performance and accomplishment, in every respect, of the entire contemplated Work or improvements indicated by the Contract Documents. DESIGN-BUILDER shall be required to prepare design documents, including, but not limited to; plans, profiles, sections, elevations, details, schedules, diagrams, drawings, BIM Models, specifications, reports, calculations, traffic models, simulations, records, studies and other documents which, collectively, are needed to adequately and completely depict and record the detailed design of the Project. DESIGN-BUILDER shall further perform and execute all design, permitting, preconstruction, construction, activation, commissioning, and closeout activities in a thorough, satisfactory, and skillful manner in accordance the Contract Documents.
- B. The DESIGN-BUILDER shall maintain a team that is experienced and technically proficient to work collaboratively with Los Angeles World Airports (LAWA) and LAWA Project/Construction Management staff, other City departments, government agencies, municipalities, authorities having jurisdiction over the project, other contractors, consultants and third-party stakeholders.
- C. The DESIGN-BUILDER in undertaking the execution of all or any part of the Services and Work or improvement is required to perform, construct, and complete the same in a thorough, satisfactory, and skillful manner in accordance with the provisions of the Contract Documents.
- D. DESIGN-BUILDER shall provide electronic copies of all deliverables in both .pdf and editable native formats (.docx, .xlsx, .pptx, .mpp, .xer, .dwg, .dwf, .rvt, etc.), unless otherwise specified.

2. PROJECT DESCRIPTION

The following is only a general description of the Airfield and Terminal Modernization Projects (ATMP) Landside Improvements Project (referred to throughout this document as ATMP Landside Improvements or the Project). Refer to Volume 2 (Reference Documents) for additional information. The documents included in Volume 2 are criteria and scoping documents and are not designs warranted by LAWA.

A. Background

The Project consists of several primary elements, including airfield improvements that would enhance operational management and safety within the north airfield, new terminal facilities to upgrade passenger processing capabilities and enhance the passenger experience, and an improved system of roadways to better access the Central Terminal Area (CTA) and new facilities while reducing congestion.

The Project is one of several components of the Airfield & Terminal Modernization Project (Figure 1), and its purpose is to develop a comprehensive Ground Transportation System as further defined in Section B below. This Project is intended to be delivered as a Progressive

Design-Build Delivery method which shall comprise of at-grade and elevated roadways, and all corresponding elements from concept through activation.

LAWA has an approved and certified Environmental Impact Report (EIR) and Environmental Assessment (EA) for the overall ATMP (which includes the ATMP Landside Improvements project) in compliance with the requirements of the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

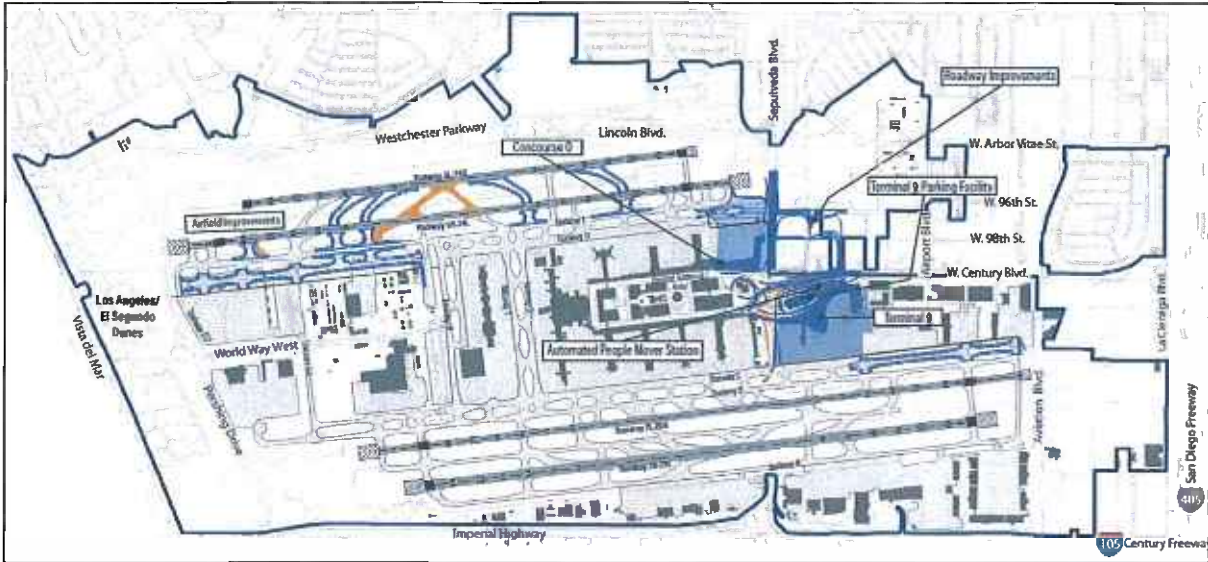


Figure 1 – ATMP Overview

B. ATMP Landside Improvements Project Overview

The Landside Improvements Project is an integral component to the ATMP and overall ground transportation system for LAX. The proposed landside improvements are located in proximity of Sepulveda Boulevard, Century Boulevard, Jetway Boulevard, and 96th Street (Figure 2).

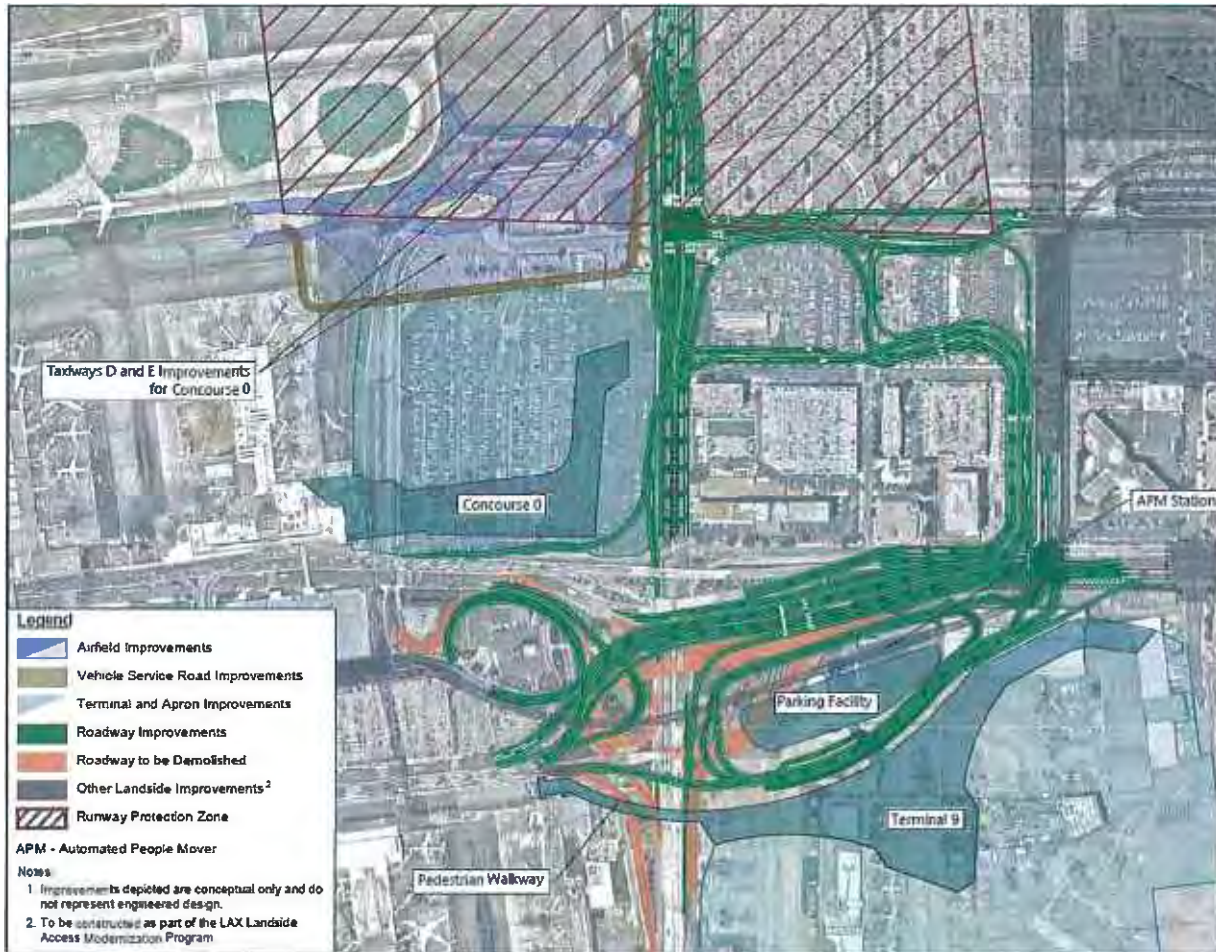


Figure 2 – General ATMP Roadway and Landside Improvements

2. The purpose of these roadway improvements is to reduce airport related traffic congestion and back-ups in the Central Terminal Area and on public streets by consolidating access to the airport with a new dedicated roadway system that separates local traffic from airport traffic. Project goals include (but are not limited to):

A. Enhance the Safety & Efficiency of Ground Transportation Systems at LAX

- a) Provide safe & convenient access for motor vehicles, pedestrians, cyclists (where applicable), etc.
- b) Consolidate roadway access to and from the CTA
- c) Separate Airport Traffic from Local Traffic on roadway network

B. Enhance the User Experience of Ground Transportation Systems at LAX

- a) Reduce traffic congestion & queuing on local streets
- b) Increase throughput into and out of the CTA
- c) Enable Dynamic, Demand-Based Transportation Policies

C. Modernize the Transportation Technology Systems at LAX

- a) Integrate intelligent transportation technologies & systems

(GPS, Smart-Parking, Traffic-Monitoring, etc.)

3. This Project includes, but is not limited to, the following components. There are Primary Components that are intended to support the primary goal of the Project and there are Secondary Components that are either required to enable the primary scope or additional scope that was not identified in the EIR, but may become part of this Project. The order in which these components are to be designed and constructed will be established during the planning and design phases of the project.

Primary Components:

1. Roadways
2. Ramps & Bridges
3. Intersection Improvements
4. Traffic Signals & Controls
5. Traffic Monitoring & Management Equipment
6. Street Lighting
7. Signage & Striping
8. Landscaping & Sidewalks
9. Utilities & Infrastructure

Secondary / Enabling Components:

1. Demolition of Existing Roadways
Sky Way, Vicksburg Ave, 96th St, Alverstone Dr, Sepulveda Ramps & Bridges
2. Demolition of Existing Facilities
APD Building, APD Trailers, Billboards, LAX-it, Park One, SAAP 3, Utilities, Miscellaneous Fences & Gates
3. New Passenger Drop-off / Pickup Areas
aka Rotaries @ ITF West, ITF East, CONRAC
4. New Terminal 9 Circulation Roads
Roadways to and from T9 at Jetway Blvd and Century Blvd with CTA connection
5. Reconfiguration of LAX Gateway
Pylons & Signage, Landscaping, Lighting, Exterior Architecture
6. Temporary Improvements to Enable Construction Phasing
Temporary Roadways, Detours, etc. as required for MOT
7. Additional Roadway Improvements
Airport Blvd Widening (Phases 1 & 2)
93rd St Sidewalk Improvements
Arbor Vitae Striping for 3rd lane
Westchester Parkway Improvements
96th St. Cul-De-Sac and Street Improvements
Westchester Parkway & Jetway Intersection Improvements
Century Blvd Widening & Multi-Use Path
98th Street Widening
98th Street Improvements
98th Street Restripe
96th St Sidewalk Improvements
Alley Reconstruction around Lot 10 (Belford Ave))
New Tuskegee Way
111th St Widening

3. SCOPE OF WORK

A. Notices to Proceed (NTP)

Upon final signatures & approvals of the Contract, LAWA envisions issuing a Notice To Proceed (NTP) for the Contract.

Thereafter, LAWA envisions issuing a Notice to Proceed (NTP) for each Task Order for discrete scopes of work relating to Phase 1 of the Contract (design & preconstruction) in accordance with Section 5 of the Contract.

Thereafter, LAWA envisions issuing a Notice to Proceed (NTP) for each Component Guaranteed Maximum Price (CGMP) for discrete scopes of work relating to Phase 2 of the Contract (construction & activation) in accordance with PR-22.

LAWA envisions some components will advance to Phase 2, in parallel to completion of Phase 1 for the overall project.

B. Phase 1 – General Description

The primary objectives of Phase 1 of the Project are;

- Validate EIR Concept and Develop Basis of Design (BOD)
- Develop a Target Budget, which shall include all fees, bonds, insurance, taxes and contingencies
- Develop a Comprehensive Phasing & Delivery Plan for the entire Project
- Advance the Design of each Project Component through Design Development
- Secure Agency Approvals from the applicable AHJs for each Project component
- Secure Competitive Proposals from Subcontractors for each Project component
- Support LAWA in determining which affected Real Estate Properties should be considered for Acquisition and/or Easements, and developing & providing the supporting Construction Documents, including, but not limited to, technical & design documents.
- Develop Guaranteed Maximum Price (GMP)/Component Guaranteed Maximum Price (CGMP) Proposals for Phase 2 (construction & activation) for each Project component

LAWA and DESIGN-BUILDER will negotiate Task Orders to accomplish the objectives above based on Technical & Financial Proposals received. At a minimum, this will include comprehensive formal submittals for the Basis of Design (BOD), Schematic Design (SD), Design Development (DD), and Final Design milestones.

Each Submittal shall build upon the previous Submittals with increasing specificity, clarity, accuracy and comprehensiveness. This may include, but not be limited to;

- **Scope Validation Document** (BOD, 15% to 30% design, Goals & Objectives, Design Criteria, Drawings & Sketches, Innovation Possibilities, Narrative Reports, Preliminary Schedules and Target Budget, etc.)
- **Design Packages** (Drawings & Specifications, Calculations & Reports, etc.). DESIGN-BUILDER shall prepare a Design Packages submittal plan and include a matrix of items included in each 30%, 60%, 90% 100% and Issued for Construction (IFC) design submittal. Completion of all Design & Permitting of the ATMP Landside

Improvements.

- **Procurement Plan.** DESIGN-BUILDER shall prepare a procurement plan including a schedule for the Project trades. The procurement plan shall differentiate sub-contracted work from self-perform work. The procurement plan shall identify early or enabling works.
- **Site Investigations** (Topography & Utility Surveys, Property & Building Surveys, Geotechnical Investigations, Hazardous Materials Surveys, Photographs, Records-Research, Traffic-Counts & Observations, Potholing, Ground-Penetrating Radar, Entering & Auditing Maintenance Holes, Exploratory Excavations, Destructive-Testing, etc.)
- **Preconstruction Submittals** (Cost Estimates, Work Plans & Schedules, Constructability Reviews, Packaging & Delivery Plans, Phasing & Logistics Plans, Subcontractor Procurement Plans, Site Investigations Plans, Area Shutdown Requests, Utility Shutdown Requests, etc.)
- **Technical Reports & Studies** (Alternatives Analysis*, Code-Compliance Data, LEED Submittals, Traffic Modeling & Simulations, Supplemental Calculations, etc.)
- **AHJ Submittals** (CALTRANS, FAA, LABOE, LADBS, LADOT, LADPW, etc.)
- **Other Third-Party Submittals** (AT&T, LADWP, Southern California Gas Company, Spectrum, etc.)
- **Maintenance of Traffic Analysis**
- **Approach to Mitigation of Construction Impacts**
- **Innovation Concepts to be Considered**
- **Labor and Material Procurement Strategies**
- **Project Management & Coordination** (Stakeholder Meetings, Weekly Progress Meetings, Monthly Progress Reports, Project Management Plan, etc.)
- **Guaranteed Maximum Price (GMP)/Component Guaranteed Maximum Price (CGMP) Proposals**
- **Administrative Submittals** (Bonds, Insurance, etc.)

In support of the design & preconstruction efforts above, DESIGN-BUILDER shall develop & explore technical concepts and strategies to overcome some of the known challenges of the Project including, but not limited to;

- **Site Demolition** includes removal of all existing utilities, storm drainage facilities, pavements, curb and gutter, sidewalks, bridges, retaining walls, foundations, fencing, landscaping, irrigation, lighting, signage, traffic signals and other surface and subsurface elements in conflict with or within the footprint of the proposed construction. Existing facilities may not be removed, salvaged, reconstructed, abandoned, destroyed, modified, reset, relocated, or relayed until the facility is no longer needed or not being used.
- **Maintenance of Traffic (MOT):** LAWA is seeking to preserve a safe & efficient flow of traffic throughout all stages of construction. DESIGN-BUILDER shall develop detailed constructability & phasing plans, technical innovation concepts, and alternatives

analysis to balance this requirement with other needs & constraints.

Entry and exit access for all transportation modes including but not limited to private vehicles, mass transit, commercial vehicles, rideshare/app vehicles, vehicles-for-hire, pedestrians, bicycles, delivery vehicles, waste vehicles, and emergency vehicles to the CTA, parking/staging areas, and all Terminals must be maintained at all times. Easy, simple wayfinding strategies must be applied. Access must be maintained at a level of service comparable to that in-place prior to construction.

Terminal arrival/departure, commercial, and transit vehicle curbside operations must always be maintained. Operations must be maintained at a level of service comparable to that in-place prior to construction.

Parking entry and exit facilities and security, access, and revenue control systems must always be maintained in service when public access is allowed. Access must be maintained at a level of service comparable to that in-place prior to construction.

ADA and Code compliant pedestrian paths of travel and bicycle access must always be maintained.

Always allow entry and exit access to the public and private properties adjacent the Project Site. Access must be maintained at a level of service comparable to that in-place prior to construction.

- **Agency Approvals:** DESIGN-BUILDER shall conform to the applicable laws, codes, regulations, etc., and shall earn the support and approvals from each of the applicable Authorities Having Jurisdiction (CALTRANS, FAA, LADBS, LADOT, LADPW, etc.) for each project component. This includes Design-Builder obtaining all Authorities Having Jurisdiction required permits and approvals for work in public right-of-way and on private property. This further includes Design-Builder obtaining all Authorities Having Jurisdiction required permits and approvals for work on properties and facilities that are owned, operated and/or maintained by a combination of Los Angeles World Airports, the City of Los Angeles, and the State of California. Design-Builder shall bear: (i) the risk of any delay in obtaining such Authorities Having Jurisdiction required permits and approvals; and (ii) the risk of conditions imposed by the Authorities Having Jurisdiction on performance of the Work by granting such permits and approvals. Refer to PR-12 for additional Third Party Coordination requirements.
- **Program Schedule:** DESIGN-BUILDER shall develop & coordinate phasing plans with other related projects (as listed in Section 5) to ensure that various Project roadway segments can be successfully delivered & activated prior to the 2028 Olympic and Paralympic Games, and the remaining balance of roadway scope delivered & activated after the 2028 Olympic and Paralympic Games.
- **Environmental:** DESIGN-BUILDER shall fulfill all requirements identified in the Mitigation Monitoring and Reporting Program (MMRP) as well as requirements in the Environmental Impact Report (EIR) for the ATMP.
- **Stakeholder Engagement:** DESIGN-BUILDER shall prepare a stakeholder engagement plan and participate in a collaborative design & preconstruction effort with project and airport stakeholders. This will involve design workshops, BIM fly-through presentations, digital simulations, and formal design reviews with LAWA, LADOT, CALTRANS LADPW, LADBS, Airlines, Tenants, Operators, and other project stakeholders that may have an interest and/or influence on the Project. When

stakeholder needs and/or desires conflict with each other, or with other project constraints (budget, schedule, safety, quality, risk, etc.), DESIGN-BUILDER shall prepare & present an alternatives analysis to inform a final decision by LAWA.

- **Commissioning and Activation:** DESIGN-BUILDER shall prepare and implement a detailed Landside Commissioning and Activation Plan that facilitates a seamless phased turnover from the DESIGN-BUILDER to LAWA as the Project transitions from a construction-site into an operational facility, as described in PR-26.

LAWA and DESIGN-BUILDER will work together to develop and maintain a cohesive Project team and will frequently re-evaluate plans and/or methods that are not in alignment with the shared project objectives. The team will be encouraged to use innovative design & construction techniques to ensure the highest standards in safety, quality, schedule, budget, and risk. Major decisions for the Project will be based on a collaborative review of the challenges, benefits and risks of each viable option.

DESIGN-BUILDER shall clearly identify if those concepts succeed or fail to meet the Project Requirements described herein, and shall thoroughly evaluate & present the benefits, disadvantages, risks, costs, options, etc. in order for LAWA to review & consider each technical innovation concept.

LAWA and DESIGN-BUILDER will host progress meetings, workshops, page-turn reviews, etc. in order to facilitate meaningful discussion & debate throughout Phase 1 of the Contract.

See PR-02 through PR-27 for additional details and requirements regarding all the topics stated above and some that were not mentioned above but are a requirement of the Project.

C. Phase 1 – Detailed Description

LAWA will issue a Notice to Proceed (NTP 1) to the DESIGN-BUILDER for Phase 1 of the Contract. Upon receipt, DESIGN-BUILDER shall proceed with the activities described below:

1. Administrative Start

- a. DESIGN-BUILDER shall provide all remaining bonds, insurance, and other administrative documentation that was not already provided during the procurement stage.
- b. DESIGN-BUILDER shall provide their preliminary Project Management Plan (PR-02) and Preliminary Schedule (PR-04) for entire project within 30 days of the Phase 1 NTP.
- c. The DESIGN-BUILDER shall obtain a separate lease agreement with LAWA Commercial Development Group (CDG) prior to mobilization for any laydown and/or project management office spaces located on the LAX campus. The ATMP Landside Improvement Projects will be assigned laydown space on the LAX campus (square-footage and location to be provided; refer to PR-06 for details), however the DESIGN-BUILDER has the option of pursuing off-site (outside of LAX campus) laydown and/or project management office spaces outside of the LAX campus. If the DESIGN-BUILDER pursues off-site laydown and/or project management office spaces, DESIGN-BUILDER shall comply with all Contract requirements and include all costs as part of their proposal and/or Guaranteed Maximum Price (GMP) (PR-22).
- d. The DESIGN-BUILDER shall commence with mobilization of the necessary resources

to perform the Work of the Contract. This includes and is not limited to:

- 1) Relocation of key personnel, staff and office equipment and materials to the PMO
- 2) Recruitment and hiring of staff as necessary
- 3) Internal contractual commitments
- 4) Buyout of key sub-consultants and subcontractors
- 5) Development and implementation of management systems, procedural and electronic, for design, preconstruction and construction.

2. Basis of Design and Early Preconstruction

- a. DESIGN-BUILDER shall commence Stakeholder outreach with LAWA, AHJs, etc. upon receipt of the first NTP and begin developing the necessary professional relationships to inform the design of the project.
- b. DESIGN-BUILDER shall plan and perform **Site-Investigations** to identify the existing conditions of the project-site, and provide the resulting documentation to LAWA. This includes, but is not limited to:
 - 1) Topography and Utility Survey:
 - i. Advanced Utility Investigations (i.e. Ground-Penetrating Radar (GPR), pot-holing, entering and auditing manholes/vaults, etc.).
 - ii. Exploratory Investigations and Destructive Testing and the associated restorative work (i.e. limited excavation, material sampling and testing, environmental, etc.)
 - 2) Geotechnical Investigations
 - 3) Photographs/Videos
 - 4) Records Research: Design-Builder shall review previous planning & entitlement documents and other records relevant to the ATMP. This includes, but is not limited to:
 - i. Environmental Impact Report (EIR) for the ATMP
 - ii. ATMP Implementation Plan (Stage 1) – Final Report
 - iii. LAX Airport Operational Database (i.e. Flight Schedules, Traffic Data, etc.)
 - iv. Past Project Definition Booklets (PDBs) for Concourse 0 & Terminal 9
 - v. Record Drawings of Existing (Relevant) Structures, Roadways, Utilities, Property-Lines, etc.
 - 5) Stakeholder Interviews: Design-Builder shall prepare and administer a 1-on-1 interview (up to 90-minutes each) with LAWA's CEO, CDO, and up to **10** other key stakeholders (as identified by LAWA) to learn & understand client and stakeholder goals, limitations, and aspirations for the ATMP. Note that other stakeholders may include elected / appointed officials, agency representatives, etc.
 - 6) Pre-Design Property Survey: Design-Builder shall conduct a physical site-survey of the ATMP Roadways Project Site, and prepare a preliminary 3-dimensional model of the existing conditions. This includes surveying, traffic-monitoring,

geotechnical investigations, photographing and field-verifying the geospatial coordinates (latitude, longitude, elevation) of the following points & objects:

- i. Existing Buildings & Structures (*Exterior Corners*)
 - ii. Existing Roadways & Sidewalks (*i.e. Centerlines, Curbs & Gutters, Crosswalks, etc.*)
 - iii. Existing Visible Utilities (*Manholes, Junction-Boxes, Valves, Meters, Panels, Switchgear, etc.*)
 - iv. Other Relevant Visible Features (*i.e. Landscaping, Traffic Signals, Light Poles, etc.*)
- c. DESIGN-BUILDER shall prepare a **Preliminary Assessment Report** for the Project. This shall include but not limited to the following sections:
- 1) **Summary of Existing Conditions** (*i.e. Narrative, Photos, Plans, Inventory, Digital Model, etc.*)
 - 2) **Project Purpose** (*i.e. Mission & Vision Statement, Goals & Objectives, etc.*)
 - 3) **Performance Requirements** (*i.e. Minimum Capacities, System Requirements, etc.*)
 - 4) **Project Limits & Exclusions** (*i.e. Geographic Boundaries, Scope Limitations, etc.*)
 - 5) **Risk Register** (*i.e. Data-Gaps, External Influences, Unresolved Issues, etc.*)
 - 6) **Initial Findings** (*i.e. Areas of Concern, Challenges & Opportunities, etc.*)
- d. Building upon the results of the Preliminary Assessment activities, DESIGN-BUILDER shall prepare **three (3) conceptual design alternatives** for the ATMP Landside Improvements. This shall include a "Baseline" option that aligns most-closely with the EIR, and two alternatives that **each** adopt a menu of changes.
- e. DESIGN-BUILDER shall provide an **Alternatives Analysis Report** on the proposals received by LAWA during the competitive selection process, and present recommendations on each of the key differences between the proposals as it relates to cost, schedule, quality, risk, safety, and operational impacts. This includes, but is not limited to, the following services and deliverables for each of the three options:
- 1) Program Summaries & Scope Narrative: i.e. Narrative Descriptions of Project Scope Components & Enabling Projects, with preliminary indicative quantities for major scope components (i.e. lane-miles of new roadways, square feet of pavement, cubic yards of concrete, and other estimated quantities for utilities, traffic signals & controls, lighting, signage, striping, landscaping, resurfacing, demolition, detours & traffic-control, special systems, etc.)
 - 2) Preliminary Concept Drawings: i.e. Project Maps, Site Plans, Demolition Plans, Roadway Plans, Roadway Elevations, Typical Roadway Sections & Details, and indicative-drawings for other major scope-components (utilities, traffic signals & controls, property-acquisitions, etc.)
 - 3) Traffic Modeling & Simulations: i.e. Digital Model and Quantitative Analysis to demonstrate the capacity & performance of the roadway network. This shall include Key Performance Indicators (KPI) at major segments & intersections such

as throughput-capacity, queue-length, traffic-delay duration, etc.

- 4) Phasing & Delivery Strategy: i.e. Preliminary Phasing Plan, Packaging Strategy, and Delivery Schedule, clearly identifying the sequences, durations, and interdependencies between the various scope-components and subtasks (design, permitting, demolition, construction, activation, etc.)
 - 5) ROM Cost Estimate: i.e. ROM Cost Estimates for each scope-component based on estimated quantities and unit-costs of known scopes of work, and applicable allowances for "known unknowns".
 - 6) Comparative Analysis: i.e. Pros & Cons, Known Risks & Opportunities, and Ratings & Rankings against the Project Mission, Vision, Goals & Objectives, KPIs, etc.
- f. Building upon the results of the Alternative Analysis activities, LAWA will select a "Preferred Alternative," which may be a hybrid of – and/or spinoff from – the three (3) preliminary options. DESIGN-BUILDER shall provide a **Proof of Concept Report** for the "Preferred Alternative". This includes, but is not limited to, the following services and deliverables:
- 1) Basis of Design (BOD) Technical Report
 - a. **Executive Summary** (*Project Summary, Known Risks, Recommendations & Next Steps*)
 - b. **Project Description:**
 - i. Program Summary (*Narrative, Goals & Objectives, Cumulative Metrics, etc.*)
 - ii. Detailed Description of each Component (*Narrative, Diagrams, Metrics, etc.*)
 - iii. Additive & Deductive Alternates
 - iv. Prior Decisions, Assumptions, and Risks
 - c. **Code-Compliance & Applicable Standards**
 - i. Authorities Having Jurisdiction (AHJ)
 - ii. Applicable Codes & Standards
 - iii. Permitting Plan & AHJ-Strategy
 - iv. Outline Memorandum of Understanding (MOU) with key AHJs
 - v. LAWA Design & Construction Handbook (*Applicability, Exemption Requests, etc.*)
 - d. **Existing Conditions:**
 - i. Summary of Findings (*From Preliminary Assessment Activities*)
 - ii. Preliminary Reports (*Topography & Utility Surveys, Geotechnical Reports, Hazardous Materials Surveys, etc.*)
 - e. **Programming:**
 - i. Activity-Forecast (*Historical Data & Projections of Vehicles,*

Pedestrians, Mode-Splits, etc.)

- ii. Demand-Basis (*Peak-Hour-Average-Day-Peak-Month, etc.*)
- iii. Level of Service (LOS) & Capacity Requirements (*Roadways, Curb, etc.*)
- iv. Concept of Operations (*Flow Diagrams, Mode-Assignments, Description of Functional Processes, Description of Operational Resources Required, etc.*)

f. Performance Requirements:

- i. Transportation (*i.e. Roadways, Sidewalks, Bike Lanes, etc.*)
- ii. Architecture (*i.e. Walls & Façades, Finishes, Lighting, Landscaping, Art, etc.*)
- iii. Civil & Site Work (*i.e. Earthwork, Demolition, Grading, Paving, Fences & Gates, etc.*)
- iv. Site Utilities (*Sewer, Storm, Power, Water, Gas, Data, etc.*)
- v. Landscaping / Hardscaping (*Planting, Irrigation, Outdoor Furniture, etc.*)
- vi. Structural (*i.e. Substructure, Superstructure, Retaining Walls, Bridges, etc.*)
- vii. Wayfinding (*i.e. Static Signage, Digital Signage, Mobile-App & GPS-Integration, etc.*)
- viii. Security (*ACAMS, CCTV, Security-Perimeters, etc.*)
- ix. IT & Special Systems (*MPOEs, Traffic Monitoring & Reporting, ALPR, etc.*)
- x. Sustainability (*Energy & Water Conservation, VMT Reduction, etc.*)
- xi. Maintenance of Traffic (MOT)
- xii. Emergency Services (*i.e. Emergency Access Points, Shoulders, etc.*)

g. Preliminary Implementation Plan:

- i. Work Plan (*design, preconstruction, procurement, construction, activation, etc.*)
- ii. Baseline Schedule (*Identifying the sequences, durations, and interdependencies of tasks, milestones, deliverables, etc. in the Work Plan*)
- iii. Site Investigations Plan (*Survey, Geotech, HazMat, Potholing, Destructive Testing, etc.*)
- iv. Phasing & Packaging Plan (*Including Early Work Packages, Long-Lead Items, etc.*)
- v. Constructability Report (*Site-Access, Staging / Laydown Areas, Construction-Methods, Mobilization, Logistics, Quality Control Plan, Safety Plan, etc.*)

- vi. Project-Interface Coordination (*Concourse 0, Terminal 9, Auxiliary Curbs, Smart Parking, LAMP, TDIP, ADP, etc.*)

h. Concept Design Drawing Package:

- i. Dimensioned Site Plans & Project Maps
- ii. Dimensioned Roadway Plans & Elevations
- iii. Preliminary Roadway Sections & Details
- iv. Preliminary Flow Diagrams (*Vehicles, Pedestrians, etc.*)
- v. Preliminary Structural & Foundation Plans
- vi. Preliminary Utility Plans
- vii. Preliminary Signage & Striping Plans
- viii. Preliminary Landscaping Plans
- ix. Preliminary IT & Special Systems Plans
- x. Preliminary Phasing Plans
- xi. Preliminary Detour and MOT Plans

i. Detailed Cost Estimates:

- i. Base Cost Estimate (*Quantity Take-offs, Unit Pricing, General Conditions, Design, etc.*)
- ii. Proposed Allowances (*Known Risks, Additive Alternates, etc.*)
- iii. Proposed Markup Factors (*Contingencies, Escalation, etc.*)
- iv. Cost-Breakdowns (*By Trade, By Component, By Category, By Quarter, etc.*)

j. Appendices:

- i. Meetings Log & Library (*Agendas, Presentations, Handouts, Decisions, Minutes, etc.*)
- ii. Comment Logs with Responses (*See Section h., herein*)
- iii. Updated Risk Register
- iv. Refined Preliminary Assessment Report
- v. Refined Alternatives Analysis Report
- vi. Cost-Benefit Analysis for Additive & Deductive Alternates
- vii. Digital 3D Roadway Model and Traffic Simulation
- viii. Renderings and 3D Fly-Through Videos
- ix. Site Utilities Report (*Points-of-Connection, Preliminary Demands & Sizing, etc.*)

DESIGN-BUILDER shall provide **Proof of Concept Report** within 120 days of the Phase 1 NTP or unless otherwise directed by LAWA.

g. **MEETINGS & PRESENTATIONS**

LAWA will host Weekly Owner-Architect-Contractor (OAC) Meetings with Design-Builder throughout the duration of this Task to ensure meaningful progress and communications.

- 1) Design-Builder shall host design-workshops, executive briefings, and stakeholder meetings (at LAWA's discretion) in order to solicit input & feedback on key issues, and to demonstrate progress on their tasks & deliverables.
- 2) Design-Builder shall prepare meeting agendas, handouts, PowerPoint presentations, meeting notes, etc. for each meeting.

h. **DELIVERABLES**

- 1) Design-Builder shall provide a Draft & Final of each Deliverable described above, and host a briefing and/or page-turn meeting to initiate the review. LAWA will provide feedback on each deliverable within 2 weeks, and intends to use Bluebeam Revu for this review process.
- 2) Based on LAWA's feedback, Design-Builder shall provide a comment log, including a response to each prior comment, clearly identifying where & how each past comment was resolved & addressed within each updated Deliverable.
- 3) Each Deliverable shall build upon the previous Deliverables with increasing specificity, clarity, accuracy and comprehensiveness.
- 4) Design-Builder shall provide electronic copies of all deliverables in both .pdf and editable native formats (.docx, .xlsx, .pptx, .dwg, .dwf, .rvt, .jpg, etc.), unless otherwise specified.
- 5) Design-Builder shall provide a Monthly Progress Report throughout the duration of this Task in accordance with PR-01 and PR-24.

3. **Schematic Design (30%) and Preconstruction**

DESIGN-BUILDER shall provide a Schematic Design Package, which builds upon the Basis of Design package with increasing specificity, clarity, accuracy and comprehensiveness. This includes, but is not limited to, the following;

- a. DESIGN-BUILDER shall perform additional **Site-Investigations** to identify the existing conditions of the Project Site, and provide the resulting documentation. This includes, but is not limited to;
 - 1) Advanced Utility Investigations (i.e. Ground-Penetrating Radar (GPR), pot-holing, entering and auditing manholes/vaults, etc.)
 - 2) Exploratory Investigations and Destructive Testing and the associated restorative work (i.e. limited excavation, material sampling and testing, environmental, etc.)
- b. DESIGN-BUILDER shall provide a **Schematic Design Narrative**. The narrative shall address previous review-comments, design characteristics, code compliance issues, and how the design meets or differs from the requirements of the Contract. The narrative shall discuss the characteristics of selected materials, equipment and

fixtures, and considered alternates. The narrative also should identify issues that may have a long-term effect on the execution of the work, such as long-lead delivery items and other critical activities.

- c. DESIGN-BUILDER shall provide an updated **Model of Existing and Proposed Conditions** (PR-21).
- d. DESIGN-BUILDER shall provide a **Schematic Design Drawing Package** indicating the proposed improvements and limits of work. The package shall be presented in corresponding scale across all disciplines as determined between DESIGN-BUILDER, LAWA, and applicable Authorities Having Jurisdictions (AHJ) requirements.
- e. DESIGN-BUILDER shall provide an updated **Project Schedule** (PR-04).
- f. DESIGN-BUILDER shall provide updated **Phasing and Logistics Plans**. This shall include the identification of work areas, working hours, planned operational impacts, mitigation strategies, and proposed implementation and contingency plans in both narrative and graphical formats.
- g. DESIGN-BUILDER shall provide a **Cost Estimate** which will be used to verify compliance with the Design-To-Budget. Uniformat II, Level 3 should be minimum requirement. DESIGN-BUILDER and LAWA will collaboratively develop Cost Estimate framework.
- h. DESIGN-BUILDER shall provide Draft **Technical Specifications**, including a breakdown of the project systems and components in accordance with Uniformat II, Level 3 for the purposes of developing cost estimates and schedules. The Specifications shall include all applicable sections, and shall be developed using the most recent edition of MASTERSPEC®, using the standard LAWA page format and the most recent edition of the LAWA Design and Construction Handbook (DCH). LAWA will further advise the DESIGN-BUILDER on particular quality assurance and quality control issues that the DESIGN-BUILDER shall address.
- i. DESIGN-BUILDER shall provide **Calculations and Reports** that are sufficiently detailed to quantify individual elements of the systems, including determination of sizes, locations, grade/quality of materials and equipment, etc. (i.e. wall/floor thickness, column/beam/connection sizes, equipment sizes, spatial requirements, etc.).
- j. DESIGN-BUILDER shall provide an update of the proposed **Code-Requirements and Applicability Strategy** for each of the project components. DESIGN-BUILDER shall provide comparable written strategies for each Authority having Jurisdiction (LADBS, LADWP, LABOE, LABSS, LABSL, LABOS, FAA, Sempra Utilities, Caltrans etc.) as needed to complete the project. Refer to PR-12 for Third Party Coordination Requirements.
- k. DESIGN-BUILDER shall provide a list of **Schematic Design Decisions**, and an alternatives analysis for each decision regarding cost, schedule, quality, risk, safety, and operational impacts.
- l. DESIGN-BUILDER shall provide **Work Plans and Procedure Manuals**, a subset of Project Management Plan (PMP), to LAWA to demonstrate that the DESIGN-BUILDER is adequately prepared for the many challenges associated with performing construction in an active airport environment.
- m. DESIGN-BUILDER shall provide a formal **Constructability Review** to make certain that the work requirements are clear, the documents are coordinated, and that they

assist the DESIGN-BUILDER in bidding, construction and project administration to result in reduced impacts to the project.

- 1) DESIGN-BUILDER shall identify an individual to lead and coordinate the constructability review process. In addition to the Preconstruction Team, the DESIGN-BUILDER shall solicit outside reviewers to provide "fresh eyes" in the review. All reviewers shall be construction professionals with adequate experience and expertise.
- n. DESIGN-BUILDER shall submit an **Application for Airspace Determination (aka 7460-Application)** for each proposed new structure, and a separate request for proposed construction-equipment (i.e. cranes) that may adversely affect the airspace and/or line-of-sight for Air Traffic Controllers (PR-03 and PR-12). DESIGN-BUILDER is required to coordinate with the FAA and LAWA Airport Operations for any work performed within the AOA and areas affecting aircraft airspace.
4. Design Development (60%) and Advanced Preconstruction

DESIGN-BUILDER shall provide a **Detailed Design Package** which builds upon the Schematic Design package with increasing specificity, clarity, accuracy and comprehensiveness. This includes, but is not limited to, the following;

- a. DESIGN-BUILDER shall perform additional **Site-Investigations** to identify and verify the existing conditions of the Project Site, and provide the resulting documentation and data. This includes, but is not limited to, exploratory excavations, interior penetrations (walls, floors, ceiling, etc.), destructive-testing, and/or limited demolition and the associated restoration to return the affected areas to equal or better condition.
- b. DESIGN-BUILDER shall provide a **Detailed Design Narrative**. The narrative shall address previous review-comments, design characteristics, code compliance issues, and how the design meets or differs from the requirements of the Contract. The narrative shall discuss the characteristics of selected materials, equipment and fixtures, and considered alternates. The narrative also should identify issues that may have a long-term effect on the execution of the work, such as long-lead delivery items and other critical activities. The Design Narrative shall be in its final format and shall include, as a minimum, the following data:
 - 1) Executive Summary
 - 2) Existing Site Conditions
 - 3) Utilities
 - 4) Contractor Access and Facilities
 - 5) Material Descriptions and Properties
 - 6) Potential Coordination Conflicts / Phasing Issues of Overall Design
 - 7) Design Philosophy and Criteria by Disciplines
 - 8) Material Descriptions and Properties
 - 9) Equipment Description and Properties
 - 10) Coordination of Maintenance and Operational Issues
 - 11) Code Report and Compliance Issues
- c. DESIGN-BUILDER shall provide an updated **Model of Existing and Proposed**

Conditions (PR-21).

- d. DESIGN-BUILDER shall provide a **Detailed Design Drawing Package**. The package shall include all required sheets of the final construction working drawings defined by the drawing list, each at least to the 60% level of completion, with sufficient information included for the purpose of subcontractor procurement and preparation of a detailed cost estimate.
- e. DESIGN-BUILDER shall provide an updated **Project Schedule (PR-04)**.
- f. DESIGN-BUILDER shall provide **Detailed Phasing and Logistics Plans**. This shall include the identification of work areas, working hours, planned operational impacts, mitigation strategies, and proposed implementation and contingency plans in both narrative and graphical formats.
- g. DESIGN-BUILDER shall provide a **Detailed Cost Estimate**, which will be used to verify compliance with the Design-To-Budget. DESIGN-BUILDER may solicit bids & proposals from key trades prior to establishing a GMP/CGMP in order to validate the Project budget and schedule. Uniformat II, Level 4 should be minimum requirement. DESIGN-BUILDER and LAWA will collaboratively develop Cost Estimate framework.
- h. DESIGN-BUILDER shall provide **Detailed Technical Specifications**, including a breakdown of the Project systems and components in accordance with Uniformat II, Level 4 for the purposes of developing preliminary estimates and schedules. The specifications shall be in the most recent edition of MASTERSPEC®, shall be formatted using the most recent edition of Construction Specifications Institute (CSI) Master Format, and the most recent edition of the LAWA Design and Construction Handbook (DCH). Specifications shall address all applicable subdivisions, and shall contain adequate technical information to supplement the drawings to quantify sizes, capacities, and qualify grade, strength, workmanship finishes, and other characteristics of applicable materials and equipment.
- i. DESIGN-BUILDER shall provide **Calculations and Reports** for all disciplines, components and systems that are required to determine the final configuration of all parts of the project leading to satisfactory execution and completion of construction work.
- j. DESIGN-BUILDER shall provide an update of the proposed **Code-Requirements and Applicability Strategy** for each of the Project components. DESIGN-BUILDER shall provide comparable written strategies for each Authority having Jurisdiction (LADBS, LADWP, LABOE, LABSS, LABSL, LABOS, FAA, Sempra Utilities, Caltrans etc.) as needed to complete the project. Refer to PR-12 for Third Party Coordination Requirements.
- k. DESIGN-BUILDER shall provide a list of detailed **Design-Decisions**, and an alternatives analysis for each decision regarding cost, schedule, quality, risk, safety, and operational impacts.
- l. DESIGN-BUILDER shall provide **Work Plans and Procedures Manuals**, a subset of Project Management Plan (PMP), to LAWA to demonstrate that the DESIGN-BUILDER is adequately prepared for the many challenges associated with performing construction in an active airport environment.
- m. DESIGN-BUILDER shall provide a formal **Constructability Review** to make certain that the work requirements are clear, the documents are coordinated, and that they assist the DESIGN-BUILDER in bidding, construction and project administration to

minimize risk and uncertainty to the Project.

- 1) DESIGN-BUILDER shall identify a lead person to lead and coordinate the constructability review process. In addition to the Preconstruction Team, the DESIGN-BUILDER shall solicit outside reviewers to provide "fresh eyes" in the review of the documents. All reviewers shall be construction professionals with adequate experience and expertise.
- 2) DESIGN-BUILDER shall submit the finalized constructability review upon completion of all back-checked comments from the design team to LAWA.
- n. DESIGN-BUILDER shall provide a proposed Component Guaranteed Maximum Price (CGMP) Binder for the "**Early Work Package**," indicating the proposed scope, schedule, and budget for work that the DESIGN-BUILDER recommends performing prior to authorization of the complete Guaranteed Maximum Price (GMP)/ Component Guaranteed Maximum Price (CGMP) scope of work.
- o. DESIGN-BUILDER shall submit an **Application for Airspace Determination (aka 7460-Application)** for each proposed new structure, and a separate request for proposed construction-equipment (i.e. cranes) that may adversely affect the airspace and/or line-of-sight for Air Traffic Controllers (PR-03 and PR-12). DESIGN-BUILDER is required to coordinate with the FAA and LAWA Airport Operations for any work performed within the AOA and areas affecting aircraft airspace.
- p. DESIGN-BUILDER shall provide a list of all **Long-Lead Items** that may be required to be purchased in advance of the GMP/CGMP to meet the project schedule.
- q. DESIGN-BUILDER shall evaluate the needs for **Spare Parts** and coordinate the spare parts requirements with LAWA's Facilities Maintenance and Utilities Group. DESIGN-BUILDER shall provide a corresponding list of Spare Parts and the associated quantities, and prepare specifications to accomplish these requirements.
5. Guaranteed Maximum Price (GMP)/Component Guaranteed Maximum Price (CGMP) Development
 - a. Building upon the Design Packages described above, the DESIGN-BUILDER shall provide a complete design stage cost estimates for each 30%, 60%, and/or 90% Design Packages CGMP and/or GMP work packages. LAWA and DESIGN-BUILDER may choose to negotiate CGMP and/or GMP Proposals at a minimum 60% Design Package, unless otherwise directed by LAWA.
 - b. **CGMP / GMP Proposal Binder** shall be developed in accordance with PR-22.
 - c. If LAWA rejects the GMP or CGMP proposal, the proposal shall be deemed withdrawn and of no effect. In such event, LAWA and the DESIGN-BUILDER shall meet and confer as to how the Project or Work Package(s) will proceed, with LAWA having the following options:
 - 1) LAWA and the DESIGN-BUILDER may suggest modifications to the GMP or CGMP proposal and the DESIGN-BUILDER shall submit a revised GMP or CGMP proposal and the approval process will recommence; or
 - 2) LAWA may remove the Work Package from the scope and LAWA may procure and construct the Work Packages(s) independently of this Contract.
 - 3) LAWA may stop some or all of the associated work, and/or terminate the Contract entirely, in accordance with the General Conditions.

6. Final Design (90% & 100%)

DESIGN-BUILDER shall provide updated Design Packages at 90% Design Development and 100% Completion (Issued For Construction Ready), which build upon the previous Design Packages with increasing specificity, clarity, accuracy and comprehensiveness. Each Design Package Submittal shall include a written response to each comment from all previous Design Packages. The responses shall indicate how each comment was addressed, and where each correction and/or change is reflected in the updated Design Package.

a. DESIGN-BUILDER shall submit a **90% Design Package** that incorporates the comments and information from the previous Design Packages. The 90% Design Package shall be a comprehensive and complete pre-final construction document, suitable for procurement and construction. The documents shall essentially be 100% complete, pending any work for only minor corrections to resolve discrepancies discovered during the final review and for the incorporation of final LAWA comments. The 90% Design Package shall include, but not be limited to;

- 1) **Drawings:** The drawing set shall include all required construction working-drawing sheets completed to practically 100% level of completion.
- 2) **Specifications:** Specifications shall be complete, comprehensive, and fully coordinated for disciplinary requirements with the working drawings and Contract Documents.
- 3) **Calculations and Reports:** All calculations and reports shall be finalized; incorporating all resolved comments and corrections of the previous submittals.
- 4) **Cost Estimate:** The Cost Estimate accompanying the 90% Submittal shall consist of a detailed line item estimate with accurate unit costs and final quantities, in order to verify compliance with the Authorized Budget. Minimal contingency and allowances will be required. This estimate shall be of sufficient detail to adequately analyze the Contractor's Proposal Documents. A section of the Cost Estimate shall include a budget reconciliation detailing major variances between the total amount of the final proposal document estimate and that of the last estimate submittal.
- 5) **Schedule:** DESIGN-BUILDER shall provide an updated Level 4 construction schedule for the overall times of submittals, procurement, fabrication, delivery, installation, testing and activation of all components of the project, including consideration for phasing the construction work.
- 6) **Permits:** Upon completion of the 90% Design Package, the DESIGN-BUILDER shall obtain any and all permits required for construction in order to proceed with the preparation of the Issued For Construction (IFC) documents, unless otherwise directed by AHJs. Note that DESIGN-BUILDER may choose to apply for some Permits prior to the 90% Design Package. DESIGN-BUILDER shall begin the permitting process no later than the 90% Design Package. Refer to PR-12 for Third Party Coordination requirements.
- 7) **Additional Design Documents:** DESIGN-BUILDER shall provide an updated Design Narrative, Model of Existing and Proposed Conditions, Design Decisions, etc. These documents shall be finalized; incorporating all resolved comments and corrections of the previous submittals.
- 8) **Preconstruction Documents:** DESIGN-BUILDER shall provide updated Site

Investigations, Phasing and Logistics Plans, Work Plans and Procedures Manuals, a subset of Project Management Plan (PMP), Constructability Reviews, Airspace Determinations, Long-Lead Lists, etc. These documents shall be finalized; incorporating all resolved comments and corrections of the previous submittals.

- b. DESIGN-BUILDER shall provide a **100% Design Package** which incorporates the comments and information gained from the previous designs, with all outstanding actions and comments resolved. All drawings in the 100% Design Package shall be sealed and signed for final submittal by a Registered Professional Engineer, a Registered Architect, or a Registered Land Surveyor licensed in the State of California as appropriate. Work that is performed by professionals or trades that do not require a professional registration in the State of California may be exempt from this requirement subject to prior written approval of LAWA and/or applicable AHJs. The 100% Design Package shall include, but not be limited to;
 - 1) **Issued For Construction (IFC) Ready Drawings**
 - 2) **Issued For Construction (IFC) Ready Specifications**
 - 3) **Calculations and Reports**
 - 4) **Final Cost Estimate**
 - 5) **Final Construction Schedule**, including consideration for phasing and logistics, submittals, fabrication and delivery, testing and activation, etc.
 - 6) **Final Permits**, including a complete list of all drawings submitted for jurisdictional and/or code review. Refer to PR-12 for Third Party Coordination requirements.
 - 7) **Additional Design Documents**, including an updated Design Narrative, Model of Existing and Proposed Conditions, Design Decisions, etc. These documents shall be finalized; incorporating all resolved comments and corrections of the previous submittals.
 - 8) **Preconstruction Documents**, including updated Site Investigations, Phasing and Logistics Plans, Work Plans and Procedures Manuals, a subset of Project Management Plan (PMP), Constructability Reviews, Airspace Determinations, Long-Lead Lists, etc. These documents shall be finalized; incorporating all resolved comments and corrections of the previous submittals.
 - 9) An original letter signed and sealed by the DESIGN-BUILDER's Engineer of Record (EOR) and addressed to LAWA certifying that the design as submitted is in accordance with prevailing and applicable codes. The letter shall include a list of such codes used in the design. Refer to PR-12 for Third Party Coordination requirements.
 - 10) An original letter signed and sealed by the DESIGN-BUILDER and addressed to LAWA providing a list of the "Special Inspections" required by the Building Code for the proposed work. Refer to PR-12 for Third Party Coordination requirements.
 - 11) An original letter signed and sealed by the DESIGN-BUILDER and addressed to LAWA for the temporary Support of Excavation System (SOE) when applicable. Refer to PR-12 for Third Party Coordination requirements.
- c. DESIGN-BUILDER shall provide **Final Construction Documents**. Final Construction Documents shall be comprehensive, clear and suitable for the purposes of procurement, contracting and construction. The Final Construction Documents shall include, but not be limited to;

- 1) **Issued For Construction (IFC) Drawings**, including perforations and/or stamps of approval from the Authorities having Jurisdiction (LADBS, LADWP, LABOE, LABSS, LABSL, LABOS, FAA, Sempra Utilities, Caltrans etc.). Refer to PR-12 for Third Party Coordination requirements.
 - 2) **Issued For Construction (IFC) Specifications**
 - 3) **Final Issued For Construction (IFC) Permits**
- d. **Certification Requirements:** Final Construction Documents, including drawings, specifications, and calculations shall be sealed and signed by the appropriate California Professional Registered Architect, Engineer-of-Record or Land Surveyor. Plans and specifications prepared for asbestos abatement, hazardous materials remediation, wetland delineation or other environmental activities shall be signed and sealed in accordance with all federal and state regulations.
 - e. **Contractual Requirements:** DESIGN-BUILDER shall coordinate with LAWA's Procurement Services Division and Contracts Team to ensure that their Subcontractor Solicitation Documents do not conflict with LAWA's Contract Documents (Conformed Contract, General Conditions, Special Conditions, Project Requirements, etc.)
 - f. DESIGN-BUILDER shall submit an **Application for Airspace Determination (aka 7460-Application)** for each proposed new structure, and a separate request for proposed construction-equipment (i.e. cranes) that may adversely affect the airspace and/or line-of-sight for Air Traffic Controllers (PR-03 and PR-12). DESIGN-BUILDER is required to coordinate with the FAA and LAWA Airport Operations for any work performed within the AOA and areas affecting aircraft airspace.
 - g. DESIGN-BUILDER is required to coordinate with the FAA and LAWA Airport Operations for any work performed within the AOA and areas affecting aircraft airspace.

D. Phase 2 – General Description

The primary objectives of Phase 2 of the Project are;

- Procure, Onboard and Mobilize Trade Contractors
- Construct, Test, Commission, and Activate the ATMP Landside Improvements
- Provide Maintenance of Traffic (MOT) Analysis throughout all stages of the Project. Continue to participate in stakeholder engagement.
- Analyze and plan for the Mitigation of Construction Impacts
- Provide Environmental Mitigation, Monitoring & Reporting
- Obtain Third-Party Certifications for the ATMP Landside Improvements
- Provide Comprehensive Record Documents and Closeout Documents for the ATMP Landside Improvements

LAWA and DESIGN-BUILDER will negotiate Guaranteed Maximum Price (GMP)/ Component Guaranteed Maximum Price (CGMP) Packages for each component, or sum of components, during Phase 1 of the Contract, which will stipulate specific scopes, schedules, budgets, requirements, constraints, and other details for Phase 2.

E. Phase 2 – Detailed Description

LAWA will issue a Notice to Proceed (NTP 2) to the DESIGN-BUILDER for Phase 2 of the contract. Upon receipt, DESIGN-BUILDER shall proceed with the activities below:

1. Construction

- a. All Construction activities shall be performed in accordance with the Contract. LAWA will host a Preconstruction Conference (PR-22) with the DESIGN-BUILDER and other key stakeholders for each CGMP and/or GMP work package, upon issuance of a NTP for Construction.
- b. DESIGN-BUILDER shall obtain a final **Airspace Determination (aka 7460-Determination)** from the FAA for each proposed new structure, and a separate determination for the proposed construction-equipment (i.e. cranes) that may adversely affect the airspace and/or line-of-sight for Air Traffic Controllers (PR-03 and PR-12). DESIGN-BUILDER is required to coordinate with the FAA and LAWA Airport Operations for any work performed within the AOA and areas affecting aircraft airspace..
- c. DESIGN-BUILDER is required to coordinate with the FAA and LAWA Airport Operations for any work performed within the AOA and areas affecting aircraft airspace.
- d. The DESIGN-BUILDER shall Plan, develop and maintain a Project Management Office (PMO) for the co-located Project Team, including staff from LAWA, LAWA PM/CM, DESIGN-BUILDER, etc.
- e. The DESIGN-BUILDER shall obtain a separate lease agreement with LAWA Commercial Development Group (CDG) prior to mobilization for any laydown and/or project management office spaces located on the LAX campus. The ATMP Landside Improvement Projects will be assigned laydown space on the LAX campus (square-footage and location to be provided; refer to PR-6 for details), however the DESIGN-BUILDER has the option of pursuing off-site (outside of LAX campus) laydown and/or project management office spaces outside of the LAX campus. If the DESIGN-BUILDER pursues off-site laydown and/or project management office spaces, DESIGN-BUILDER shall comply with all Contract requirements and include all costs as part of their proposal and/or Guaranteed Maximum Price (GMP)/Component Guaranteed Maximum Price (GMP) (refer to PR-22).

2. Closeout

- f. All Closeout activities shall be performed in accordance with the Contract. LAWA will host a Closeout Meeting for each CGMP and/or GMP work package upon request from the DESIGN-BUILDER, or within 30 days of Substantial Completion (PR-27).

F. Other / Miscellaneous Scope

In addition to the scope described above, LAWA may (or may not) issue individual task orders for specific needs, to be funded by Owner Allowances as described in PR-05.

G. Early Work Packages

As identified in the Procurement Plan and throughout Phase 1 of the Contract, DESIGN-BUILDER may develop GMP/CGMP Proposals for select components of the Project to

advance to Phase 2 in accordance with PR-22. This may include procurement of long-lead items, utility-relocations, temporary roadways, and/or other early / enabling work prior to developing a GMP/CGMP Proposal for the full Project.

H. Subcontractor Procurement

DESIGN-BUILDER shall solicit competitive proposals from Subcontractors for multiple work packages in accordance with GC-9.

I. Off-Ramps

If LAWA and DESIGN-BUILDER fail to reach agreement on the BOD, SD, DD, and/or GMP/CGMP Proposal, then LAWA may choose not to proceed with remaining stages of the Contract for the associated scope of work.

LAWA may utilize the services & deliverables from DESIGN-BUILDER to solicit competitive proposals from other Designers, Contractors, Design-Builders, or other Contractors at any time, for any or all project components.

LAWA may terminate the Contract for convenience at any time in accordance with GC-37.

4. POLICIES AND PROCEDURES

A. Policies

DESIGN-BUILDER shall adhere to the following policies in the development of all design documents and supporting documentation for which LAWA has authorization for approval. Design services shall be performed by either a licensed California Professional Engineer or a licensed California Architect (dependent on the scope). All submitted and approved drawings need to be stamped and signed by said licensee. DESIGN-BUILDER shall be responsible for the development of design documents, supporting documentation and coordination that comply with third party agency design policies for the purpose of securing approval by these agencies. At a minimum, DESIGN-BUILDER's design activities and documents will provide the following

1. Compatibility with Aviation Operations

DESIGN-BUILDER shall develop all Project documents for design and construction in compliance with all applicable federal, state, regional, city and local laws and regulations, and consistent with accepted airport standards such as the LAWA Design and Construction Handbook (DCH), Authorities Having Jurisdiction (AHJ) and Third Parties including but not limited to LADBS, LABOE, LABOS, LABSS, LABSL, Caltrans, FAA, various utility companies, etc. Structures and facilities shall not pose a hazard to aircraft operations, interfere with established Federal Aviation Administration (FAA) ground or air control procedures, nor impede the safe flow of aircraft and/or ground service equipment (GSE). Construction safety and work plans shall be made with consideration and approval of the FAA where necessary and applicable. DESIGN-BUILDER shall identify the appropriate airport operations stakeholders to coordinate any required work or tasks to be performed in the Air Operations Area (AOA) throughout all stages of the project. Below are links to the DCH.:

<http://www.lawa.org/laxdev/Handbook.aspx>

2. Environmental Protection and Sustainability

DESIGN-BUILDER's design and construction documents and environmental efforts must conform to all applicable federal, state, regional, city and local laws and regulations. DESIGN-BUILDER shall also fulfill the Project-specific sustainability goals as described in PR-18 and PR-20.

3. Safety

Safety shall be an integral part of the DESIGN-BUILDER's delivery process throughout all stages of the Project. DESIGN-BUILDER shall perform all work in compliance with LAWA's Construction Safety Program Requirements and PR-15, and shall provide design and construction documents that support the LAWA objective of an accident-free Project. DESIGN-BUILDER shall work with LAWA's Safety Team in the development and approval of the DESIGN-BUILDER's Safety Plans.

4. Quality Assurance (QA) and Quality Control (QC)

DESIGN-BUILDER shall comply with quality assurance (QA) and quality control (QC) program requirements for their design, preconstruction, and construction activities and associated documents. The DESIGN-BUILDER's QA and QC plan shall be prepared and maintained in accordance with the Contract (PR-13 and PR-14). The QA and QC plan shall further reflect that the DESIGN-BUILDER is required to perform inspection and tests on many items of work, including that of subcontractors. The technical specifications shall specify all activities to be performed by the contractor as part of the QA and QC program.

5. Site Protection and Restoration

DESIGN-BUILDER shall take appropriate measures to protect all surrounding properties, utilities and facilities from damage. DESIGN-BUILDER shall restore all surrounding properties, utilities and facilities to equal or better condition prior to construction completion.

B. Project Management and Execution

1. Work Plans and Procedures Manuals (Project Management Plan (PMP))

a. DESIGN-BUILDER shall submit formal Work Plans and Procedures Manuals, a subset of Project Management Plan (PMP), to LAWA with each design package submittal (BOD, 30%, 60%, 90%, 100%), and on a quarterly basis during construction. Each submittal shall build upon the previous versions with increasing specificity, clarity, accuracy and comprehensiveness. This includes, but is not limited to:

- 1) Project Management Plan (PR-02 and PR-22)
- 2) Traffic Management Plan (TMP)
- 3) Construction Area Access, Phasing and Logistics Plan (PR-03)
- 4) Safety Plan (PR-15)
- 5) Security Plan (PR-03)
- 6) Work Plan & Schedule (PR-04)
- 7) Site Investigations Plan
- 8) Design Management Plan (PR-11)
- 9) Design Submittal Packaging Plan

- 10) Cost Management Plan
- 11) Project Controls Plan
- 12) Quality Control Plan (PR-14)
- 13) Virtual Design and Construction (VDC) and Building Information Modeling (BIM) Execution Plan (PR-21)
- 14) Risk Management Plan
- 15) Sustainability Plan
- 16) Airport Operational Readiness & Commissioning Plan (PR-26)
- 17) Storm Water Pollution Prevention Plan (SWPPP)
- 18) Hazardous Materials Management Plan (HMMP)
- 19) Environmental Monitoring and Control Plan (PR-18)
- 20) Permitting Plan
- 21) Third Party and Agency Coordination Plan (PR-12)
- 22) Communication Plan
- 23) Stakeholder Engagement and Management Plan
- 24) Procurement and Packaging Plan (including but not limited to self-perform, subcontracting, etc.)
- 25) Onboarding and Training/Familiarization Plan

LAWA envisions DESIGN-BUILDER will develop the PMP in stages, with increasing specificity, clarity, accuracy, and comprehensiveness as the project advances.

DESIGN-BUILDER shall provide a Monthly Progress Report throughout all stages of the Project, clearly describing & demonstrating the latest progress, challenges, developments, and key performance indicators (KPI) for each of the plans, attributes, and considerations above.

- b. Phasing and Logistics Plans shall include the identification of work areas, working hours, potential operational impacts, proposed mitigation strategies, and proposed implementation and contingency plans. The plans shall include graphical presentations of each phase of work, with supporting narrative descriptions of the potential impacts and mitigation-measures. This includes, but is not limited to;
 - 1) Work Areas (construction, offices, storage and laydown, employee parking, etc.)
 - 2) Site Access (haul-routes, delivery-hours, badging, AOA posts, etc.)
 - 3) Roadway / Traffic Impacts (i.e. lane-closures, etc.)
 - 4) Pedestrian Impacts (i.e. sidewalk closures, etc.)
 - 5) Airfield Impacts (i.e. Taxiway Closures, Gate-Closures, etc.). DESIGN-BUILDER is required to coordinate with the FAA and LAWA Airport Operations for any work performed within the AOA and areas affecting aircraft airspace.
 - 6) Environmental Impacts (i.e. noise, vibration, stormwater, etc.)
- c. DESIGN-BUILDER shall submit detailed construction work plans prior to starting each significant phase of construction (i.e. demolition, abatement and hazardous material

mitigation, civil and utilities, earthwork, foundations, structural, building envelope, building-systems, roadway, traffic, etc.), building upon the plans described above.

2. Stakeholder Management

- a. DESIGN-BUILDER shall engage with stakeholders as early as possible, and shall regularly and formally conduct stakeholder outreach efforts (workshops, document-reviews, site-visits, etc.) throughout all stages of the Project. DESIGN-BUILDER shall prepare and implement their Work Plans and Procedures Manuals, a subset of Project Management Plan (PMP), to complement LAWA's Airport Operational Readiness (AOR) Program and coordinate activities within the plans with the AOR Team.
- b. DESIGN-BUILDER shall create, maintain, and implement a Stakeholder Engagement and Management Plan that includes the processes required to identify the people, groups and organizations that could affect or be affected by the project, to analyze stakeholder expectations and their impact on the Project, and to develop appropriate strategies and tactics for effectively engaging stakeholders in a manner appropriate to the stakeholders' interest and involvement in the Project. The Stakeholder Engagement and Management Plan will include the following sections:
 - 1) Identification of Stakeholders – identify by name and title the people, groups, and organizations that have significant influence on Project direction and its success or who are significantly impacted by the Project.
 - 2) Plan for Stakeholder Management – identify the strategies and mechanisms that will be used to ensure appropriate stakeholder engagement is performed throughout the Project life cycle.
 - 3) Management of Stakeholder Engagement – outline the processes and steps that will be undertaken to carry out the planned strategies including any limitations, restrictions or risk.
 - 4) Control Stakeholder Engagement – describe the methods and efforts that will be used to monitor stakeholder engagement and maintain the appropriate levels of communication with each stakeholder.
- c. The DESIGN-BUILDER shall provide the necessary exhibits, drawings, presentations or other graphics as necessary for stakeholders to use to communicate to or solicit input from other stakeholders.
- d. DESIGN-BUILDER shall conduct all activities necessary to interface and coordinate with other organizations and third party jurisdictional agencies to secure approval of the design documents. DESIGN-BUILDER shall identify the authorizing agency (or agencies) with jurisdictional authority for approval, and shall coordinate with those agencies on LAWA's behalf to secure approval of the design documents. DESIGN-BUILDER shall coordinate with organizations including, but not limited to, the following:
 - 1) City of Los Angeles Department of Water and Power (LADWP)
 - 2) City of Los Angeles Bureau of Engineering (LABOE)
 - 3) City of Los Angeles Bureau of Street Lighting (LABSL)
 - 4) City of Los Angeles Bureau of Street Services (LABSS)
 - 5) City of Los Angeles Bureau of Sanitation (LABOS)
 - 6) City of Los Angeles Bureau of Contract Administration (CONAD)

- 7) City of Los Angeles Department of Building and Safety (LADBS)
- 8) Los Angeles World Airports (LAWA)
 - a) Airports Development Program (ADP)
 - b) Airport Operations and Emergency Management
 - c) Facilities Maintenance and Utilities Group
 - d) Information Management and Technology Group (IMTG)
 - e) Airport Security and Public Safety
 - f) Shutdown Control Center (SCC)
 - g) Coordination and Logistics Management (CALM)
 - h) Environmental Programs Group
- 9) City of Los Angeles Council District (CD) 11
- 10) South Coast Air Quality Management District (SCAQMD)
- 11) California Department of Transportation (Caltrans)
- 12) Federal Aviation Administration (FAA)
- 13) Environmental Protection Agency (EPA)
- 14) U.S. Customs and Border Protection (CBP)
- 15) U.S. Citizenship and Naturalization Services
- 16) U.S. Department of Agriculture
- 17) U.S. Public Health Service
- 18) Airport Tenants
- 19) Air Carriers
- 20) LAX Fuel System Management
- 21) Transportation Security Administration (TSA)
- 22) California Coastal Commission
- 23) Cultural Affairs Commission
- 24) Public Arts Commission
- 25) Private utility providers (Sempra Utilities, etc.)
- e. DESIGN-BUILDER shall coordinate their design with other projects and/or contractors that may affect this Project, and clearly reflect that coordination within each design package. DESIGN-BUILDER shall assure LAWA that all elements of its design and construction work, including that of its subcontractors, are fully coordinated with other projects and/or contractors.
3. Design Management (PR-11)
 - a. DESIGN-BUILDER shall identify third-party jurisdictional agencies which may have authority for approval over each Project component and design package in their Permitting Plans within each design package.
 - b. DESIGN-BUILDER shall be responsible for adhering to the requirements of LAWA and AHJ Design Requirements, as well as the requirements of third-party jurisdictional agencies for the approval of design documents.

- c. DESIGN-BUILDER shall submit each Design Package to the Jurisdiction having Authority and to LAWA. Upon receipt, LAWA will conduct a formal design review and provide written feedback to the DESIGN-BUILDER within 30 calendar days.
 - d. DESIGN-BUILDER shall reconcile all comments received from LAWA, and provide a written response to each comment in the follow-on design package. The responses shall indicate how each comment was addressed, and where each correction and/or change is reflected in the updated Design Package.
 - e. DESIGN-BUILDER is solely responsible for quality control of their design and construction documents, and for ensuring that all procedural requirements are fulfilled. DESIGN-BUILDER shall provide design submittals that are fully comprehensive and complete in accordance with PR-11.
 - f. DESIGN-BUILDER shall submit formal Design Packages to LAWA at the scheduled time of completion of the following design stages:
 - 1) Basis of Design (BOD) and Proof of Concepts
 - 2) Schematic Design (30%) Submittal
 - 3) Design Development (60%) Submittal
 - 4) Final Design (90%) Submittal
 - 5) Issue For Construction (IFC) Documents (100%) Submittal
 - 6) Record Documents
 - g. DESIGN-BUILDER shall coordinate design-priorities with the approved Procurement Plan and Project Schedule to ensure design-package submittals do not adversely affect the schedule.
 - h. Incomplete submittals will be rejected and returned for additional work and resubmittal. If a submittal is determined to be unacceptable by the Jurisdiction having Authority or by LAWA, the DESIGN-BUILDER will be notified accordingly. Delays and/or costs incurred by incomplete submittals and/or their associated rejection are the responsibility of the DESIGN-BUILDER, and no allowances will be made. Refer to PR-12 Third Party Coordination requirements.
4. Risk Management
- a. DESIGN-BUILDER shall be responsible for and lead the Risk Management effort for the Project. DESIGN-BUILDER shall provide a Risk Management Plan, identifying their process for risk identification, assessment, qualification, quantification and responses. It should follow a methodology recognized in the industry as appropriate to the Project scope.
 - b. DESIGN-BUILDER shall identify a staff member that will provide Risk Management services. That person will be responsible for implementation of the approved Risk Management Plan. Regular meetings shall be scheduled to update and improve the overall risk profile of the Project. DESIGN-BUILDER shall be responsible for creating and maintaining the Project Risk Register and associated documentation.
5. Utility Locating and Marking
- a. DESIGN-BUILDER shall verify the location, depth, alignment, size, function and condition of all existing utilities affected by and/or relevant to the Project in accordance with PR-07.

- b. DESIGN-BUILDER shall identify all existing and proposed utilities in their Design Documents, Construction Documents, and Model of Existing and Proposed Conditions.
- c. DESIGN-BUILDER shall physically mark the location of all identified existing utilities in the field prior to starting any construction that could adversely affect those utilities.
- d. DESIGN-BUILDER shall provide a complete LAWA Impact Request (LIR), Area Shutdown Requests (ASR) and or Utility Shutdown Requests (USR) to LAWA's Construction and Logistics Management (CALM) Team and/or LAWA's Shutdown Control Center (SCC) at least 30 days prior to any planned area and/or utility shutdown(s). (PR-03)
- e. DESIGN-BUILDER must retain a tribal monitor approved by the Gabrieleno Band of Mission Indians-Kizh Nation and will be present on-site during construction phases that involve any ground disturbing activities. Refer to PR-18, certified Environmental Impact Report (EIR), and National Environmental Policy Act (NEPA) Environmental Assessment (EA) for requirements. Also refer to PR-05 Allowances.
- f. DESIGN-BUILDER is required to coordinate with the FAA and LAWA Airport Operations for any work performed within the AOA and areas affecting aircraft airspace. Refer to PR-12 Third Party Coordination requirements.
- g. DESIGN-BUILDER is required to coordinate with Authorities Having Jurisdiction (AHJ) and Third Parties including but not limited to LADBS, LABOE, LABOS, LABSS, LABSL, Caltrans, FAA, various utility companies, etc. for any work performed within the AHJs and/or Third Parties rights-of-way and easements. Refer to PR-12 Third Party Coordination requirements.

C. Cost Management

1. DESIGN-BUILDER shall prepare and submit a construction cost estimate with all design submittals. All estimates shall be prepared by professionals skilled in construction cost estimating and are subject to approval by LAWA. DESIGN-BUILDER shall be responsible for reviewing and validating all costs whether prepared by the DESIGN-BUILDER or by others. DESIGN-BUILDER shall notify LAWA of any company engaged in construction work used for the preparation of estimates. DESIGN-BUILDER estimates shall be developed to the level of detail appropriate for the respective submittal as follows;

Uniformat II should be minimum requirement, however, DESIGN-BUILDER and LAWA will collaboratively develop Cost Estimate framework.

- a. Basis of Design: Uniformat II, Level 2 or above
 - b. Schematic Design: Uniformat II, Level 3 or above
 - c. Detailed Design: Uniformat II, Level 4 or above (including new CSI 48+ divisions)
 - d. Construction: Uniformat II, Level 4 or above (including new CSI 48+ divisions)
2. DESIGN-BUILDER shall present construction cost estimates in a legible format, in sufficient detail to reflect progress of design submission. DESIGN-BUILDER shall provide updated cost-estimates with each formal design package submittal (BOD, 30%, 60%, 90%, 100%, IFC). In addition to a complete project cost estimate, the DESIGN-BUILDER shall present separate cost-breakdowns for the various Project components progressed to the development of a CGMP/GMP.
 3. DESIGN-BUILDER shall include actual quantities and unit costs for each line item of

the designed portions of work. The unit costs shall address Labor Workhour Units, Labor Cost Units, Material Cost Units, and Construction Equipment Cost Units. The construction cost estimates shall include Quantity, Unit of Measure, Labor Hours, Labor Rates, Material Costs, Equipment Dollars and Total Dollars for each Level 4 line item and shall be rolled up by totals to Level 1 and Level 2. All labor rates shall have a breakdown that includes the actual raw rate and documented burdens, benefits, etc.

- a. DESIGN-BUILDER's Profit shall be identified as separate line item and taken on the cost of work. The estimates shall identify the escalation percentage, amount of escalation to mid-point included in the estimate (based on the construction schedule) as a line item and the estimate shall be totaled for all costs. For bid item estimates the escalation shall be included in each applicable bid item.
 - b. Mobilization shall be included as a separate line item.
 - c. A basis of estimate narrative describing the scope of the estimate, exclusion of what is not in the estimate, what the escalation to the midpoint of construction is based on, and identifying the construction duration used for the estimate shall accompany each estimate.
 - d. Approximate quantities and unit costs shall be developed for work not yet clearly defined. Allowances may be applied for work that is known, but not yet detailed.
 - e. Design/Builder Contingency to be jointly developed with the DESIGN-BUILDER and LAWA. The Design/Builder Contingency should not exceed the following target ranges: 10-20% during Basis of Design, 10-15% during Schematic Design, and 5-10% during Detailed Design, unless otherwise directed by LAWA.
 - f. A section of each estimate shall include a budget reconciliation detailing major variances between the current estimate and that of the previous design submittal.
4. Unit Prices shall be to the nearest cent. Total costs shall be rounded to the nearest dollar with comas and without the dollar (\$) sign. The dollar (\$) sign shall be used only at appropriate subtotals and totals.
 5. Contractor General Conditions: Contractor general conditions shall be a separate line item based on bottoms-up staffing plan and shown as a percentage of the construction cost, unless otherwise directed by LAWA.
 6. All Construction Pricing: All construction pricing shall be based on current costs, including escalation, at the time the estimate is prepared. The basis of such costs shall be clearly stated.
 7. For Specific Levels of Completion and Other Requirements: For specific levels of completion and other requirements, refer to specific submittal requirements.
 8. Estimate Shall Include: Estimate shall include submittal type or level, date and have title of drawings and specifications.
 9. Assumptions: All assumptions, allowances and risk related contingencies that affect the estimate shall be clearly identified and should decline as design progresses.
 10. Exclusions: Exclusions are potential cost items not currently addressed by the submittal documents; therefore, they cannot be assigned an accurate cost or allowance. They shall be clearly identified in the estimate and decline as design progresses.
 11. For Each Facility or Major Component of the Estimate: For each Facility or Major Component of the estimate, a summary level of aggregate man-hours and direct costs

shall be provided. The direct cost summation shall be further broken down by labor, material, equipment, subcontractor(s) and total cost.

12. For Project Summary: Provide a summation of aggregate man-hours and direct costs. Further break down direct cost summation by labor, material, equipment, subcontractors' costs, and total cost.
13. Comparative Tabulation: A separate comparative tabulation of direct costs for major components and/or types of work, markups and total Project construction cost shall be provided for the current estimate and the previous estimate.

D. Schedule Management

1. DESIGN-BUILDER shall provide a Preliminary Schedule in Precedence Diagram Method (PDM), Gantt chart or other acceptable presentation ten (10) days prior to the Project Kick-off Meeting for LAWA's review and approval and/or comment (PR-04). The preliminary schedule shall include all work activities for the first 120 days of the Project unless otherwise directed by LAWA.
2. Within sixty (60) days of Notice to Proceed, DESIGN-BUILDER shall submit the detailed Phase 1 portion and a Preliminary Level 3, Phase 2 portion of DESIGN-BUILDER's Baseline Project Schedule and Narrative.
3. DESIGN-BUILDER shall provide Monthly Schedule Updates on a monthly basis, and with each design review submission. Each updated schedule shall indicate the percentage complete for each activity, and the forecasted dates for all remaining activities and milestones. When, during the execution of design work, milestone dates appear to be in jeopardy, the DESIGN-BUILDER shall provide a written explanation of the delay or potential delay, and a written proposal of an alternative course of action to achieve schedule recovery. The DESIGN-BUILDER shall identify actions and/or decisions required by LAWA or others that may adversely affect the schedule. LAWA uses Primavera software and requires the DESIGN-BUILDER to prepare schedules that are compatible. Each submittal should include schedule information in hard copy and electronic formats (both ".PDF" and ".xer").
4. DESIGN-BUILDER shall identify other planned projects (current or future) that may have a bearing on any part of work included in the DESIGN-BUILDER's contract, and coordinate with other projects and/or contractors throughout all stages of the project to ensure timely completion of this project and other related projects.

E. Additional Services

1. In addition to the items listed above and as needed, the DESIGN-BUILDER shall have the ability to subcontract with specialized firms for additional services, including but not limited to construction materials testing, archeology and paleontology monitoring, noise monitoring, biotic resource monitoring, water quality testing, hazardous materials testing and remediation, Maintenance of Traffic (MOT) and other services.

F. Work By Others

1. DESIGN-BUILDER shall cooperate and coordinate with other projects' designers, contractors, tenants, operators, etc. as needed to ensure the successful delivery & implementation of the ATMP Landside Improvements and related projects. Related projects include, but are not limited to;
 - a. ATMP Airside Improvements
 - b. Concourse 0

- c. Terminal 9
- d. Cargo Redevelopment Program
- e. Airports Development Program (ADP)
- f. Landside Access Modernization Program (LAMP)
- g. Terminal Development & Improvement Program (TDIP)
- h. LAX Northside Development Plan
- i. Advanced Transportation System and Coordination (ATSAC) Hub Replacement
- j. Gateway Improvements

Various adjacent roadway and infrastructure projects

END OF PR-01 SCOPE OF WORK

PR-02 PROJECT MANAGEMENT AND COORDINATION

1. RESPONSIBILITIES

- A. LAWA maintains construction project manager software, web-based Meridian System Prolog. DESIGN-BUILDER shall coordinate with LAWA for transmitting and coordinating construction related documentation.
- B. DESIGN-BUILDER shall facilitate communications and the management of the construction design process. DESIGN-BUILDER is required to establish a local office for the duration of the project. Design work shall be performed consistent with the standards of professional care exercised by national design firms. The DESIGN-BUILDER is not required to produce the entire construction documents package in the local office; however, the DESIGN-BUILDER must provide a core design team permanently stationed at the local office to provide LAWA with the current status of the design documents and to address technical issues that may arise during the design process. The DESIGN-BUILDER is required to deliver to LAWA any and all design materials. These materials include, but are not limited to: calculations, preliminary drawings, construction drawings, shop drawings, samples, electronic media data, sketches, illustrations, specifications, descriptions, models, mock-ups, and other information DESIGN-BUILDER shall developed, prepared, furnished, or delivered in the prosecution of the design work.
- C. DESIGN-BUILDER shall designate a Third Party coordination team that has extensive experience successfully processing projects through all authorities having jurisdiction for all projects included in this Scope of Work. The Third Party Coordination manager shall be a registered Civil engineer with at least 5 years of permitting experience in the City of Los Angeles.

2. PHASING AND LOGISTICS

- A. The team must have recent, relevant experience with processing projects through all required Los Angeles City, County and Caltrans Departments and AHJ. The DESIGN-BUILDER shall provide and maintain phasing and logistics plans throughout all stages of the project as described in PR-01 and elsewhere in the contract documents.
- B. DESIGN-BUILDER shall coordinate the development of its phasing and logistics plans with the appropriate Stakeholders throughout all stages of the Project for review and approval to ensure that the development and execution of their Phasing and Logistics Plans accommodate Stakeholder needs and minimize the associated risks and impacts.
- C. DESIGN-BUILDER shall work closely with LAWA's CALM group throughout all stages of the project to ensure that all CALM and LAWA requirements are fulfilled as described in LAWA's Design and Construction Handbook (DCH) and properly coordinated with stakeholders.
- D. DESIGN-BUILDER shall attend the CALM weekly roadway coordination meeting to discuss and coordinate any potential roadway or lane closures prior to submitting an Area Shutdown Request (ASR), Utility Shutdown Request (USR), or LAWA Impact Request (LIR). DESIGN-BUILDER shall attend the CALM nightly huddle as appropriate but minimally on the night of any closure to discuss the safety-risks and operational-impacts of the closure, and the plans and procedures to mitigate those risks and impacts.
- E. DESIGN-BUILDER shall include complete Phasing & Logistics Plans in their GMP/CGMP Proposal. LAWA may establish specific Liquidated Damages for the Contract for planned or unplanned operational impacts that extend beyond their contractual/approved durations.

- F. The Phasing and Logistics Plans and associated Liquidated Damages shall be specifically identified in the ATMP Roadways GMP Contract Documents for "Phase 2" of the Contract. This section, PR-02, is subject to modification or replacement to update or these requirements for Phase 2.
- G. The Phasing and Logistics Plans shall cover and include all aspects of construction stages and sequencing to include all the items listed below, but not limited to:
- CALM and SCC (Shutdown Control Center)- Utility Shutdown Request (USR), Area Shutdown Request (ASR), LAWA Impact Request (LIR), etc.
 - Pedestrian/PAX Safety, accessibility, and wayfinding
 - Understanding of Project Constraints
 - Construction hours (by phase, package, etc.)
 - Site office, facilities, and storage – Ref. PR-06
 - Security (Landside, Airside and Secured Access Areas)- Ref. PR 3
 - Traffic management and control/LAPD coordination – Ref. PR 3
 - Haul routes, schedules, and constraints
 - Construction related parking
 - Dust control
 - Equipment operation, maintenance, safety, etc.
 - Hazardous materials controls
 - Site drainage, SWPPP and rain mitigation
 - Solid waste/recycling management
 - Crane use and constraints (FAA Approvals)
 - Site and material management

3. CONSTRUCTION DOCUMENTS PHASE

- A. Prepare the construction documents for the entire Project
1. Upon receipt of the NTP, the DESIGN-BUILDER shall instruct the Engineer of Record to commence the designs and the preparation of the construction documents. The construction documents shall provide information customarily necessary in documents for projects of similar size, complexity, and quality. The construction documents shall include all information required by the building trades to complete the construction of the project, other than such details customarily developed by others during construction. The DESIGN-BUILDER shall be responsible to design, prepare construction documents and coordinate all disciplines for the entire project including, but not limited to, all structural elements site work, landscaping and utilities. The project's design shall meet or exceed the design and performance criteria stipulated in the contract documents.
 2. LAWA's review of the construction documents shall be conducted in accordance with the approved DESIGN-BUILDER's baseline schedule with procedures set forth in progress schedules and reports. Such review shall not relieve the DESIGN-BUILDER from its responsibilities under the agreement. Such review shall not be deemed an approval or waiver by LAWA of any deviation from, or of the DESIGN-BUILDER's failure to comply with, any provision or requirement of the contract documents, unless such deviation or failure has been identified as such in writing in the document submitted by the DESIGN-BUILDER and explicitly approved by LAWA.
 3. However, it is acknowledged by the parties hereto that inherent in a Design-Build concept, bridging or otherwise, the production and review of construction documents may be a continuing process with portions thereof completed at different times. However, the

DESIGN-BUILDER will determine the number of design packages with LAWA and stipulate the number in the project management plan as required in contract. See also, management plan information and requirements, meetings and conferences.

4. The DESIGN-BUILDER shall submit completed packages of the construction documents for review by LAWA, LAWA Fire Marshal, and LAWA Engineer at the times indicated on the DESIGN-BUILDER's baseline schedule and as defined in contract requirements, "Submittal Procedures". The DESIGN-BUILDER shall schedule meetings with LAWA to review the construction document packages. Meetings shall be scheduled so as not to delay the work. After reviewing the construction documents package for conformance to the performance criteria, LAWA will issue a NTP for construction to the DESIGN-BUILDER.
5. DESIGN-BUILDER shall provide construction documents for hazardous and/or toxic abatement efforts and demolition activity and shall be of sufficient clarity and detail and submitted to LAWA for review.

B. Ownership of Design Materials

1. All materials and documents developed in the performance of this agreement are the property of LAWA. LAWA shall have unlimited rights, for the benefit of LAWA, to all drawings, CAD files, designs, specifications, notes, and other work developed in the performance of this agreement, including the right to use same on any other LAWA work at no additional cost to LAWA. DESIGN-BUILDER agrees to and does hereby grant to LAWA a royalty-free license to all such data that DESIGN-BUILDER may cover by copyright and to all designs as to which DESIGN-BUILDER may assert any rights or establish any claim under the patent or copyright laws. The DESIGN-BUILDER for a period of three (3) years after completion of the project agrees to furnish and to provide access to the originals or copies of all such materials upon the request of LAWA. LAWA agrees to make no demand on DESIGN-BUILDER for responsibility for LAWA's use of such materials for any other LAWA work that is not the subject of an agreement between LAWA and DESIGN-BUILDER for such use.
2. LAWA does not assume any obligation to employ the DESIGN-BUILDER's services or pay DESIGN-BUILDER royalties of any type as to future programs that may result from the work performed under this agreement.

C. Design Material Errors

1. The DESIGN-BUILDER shall be solely responsible for all design errors, including, but not limited to: errors, inconsistencies or omissions in the construction documents. The DESIGN-BUILDER shall take field measurements and verify field conditions and shall carefully compare such field conditions and other information known to the DESIGN-BUILDER from the contract documents before commencing activities. The DESIGN-BUILDER shall coordinate with all necessary agencies and receive construction permits before performing any affected work.

4. CONSTRUCTION PHASE RESPONSIBILITIES

- A. The DESIGN-BUILDER shall provide all labor, materials, equipment, temporary utility services and facilities necessary to construct the entire project as required by the contract documents, including, but not limited to:
 1. Prepare an existing conditions survey of the all surrounding and adjacent properties, including streets and observable utilities, prior to the start of construction. The survey shall

professionally document existing conditions of surrounding and adjacent properties using a professional video/filming service hired by the DESIGN-BUILDER and approved by LAWA prior to the start of work. Video shall be CD or DVD and contain detailed audio documentary describing property, location and existing conditions in areas of view. DESIGN-BUILDER shall be responsible for gaining access to properties. Submit five (5) copies of the CD or DVD's to LAWA ten (10) days prior to the start of construction.

2. Design, construct and maintain for the entire duration of the project all necessary improvements to be used as the field office (in the vicinity of the projects) for both the Design-Build and LAWAs' project management teams. All costs are to be paid as part of the stipulated sum, including, but not limited to: all office space, furniture, furnishings, equipment, utilities (including, but not limited to: water, power, sewer, broadband internet service, phone and fax lines), express mail, document reproduction, drinking water, and janitorial services as further described in Temporary Facilities.
3. Establish reasonable pre-qualification criteria and standards for sub-contractors.
4. DESIGN-BUILDER shall provide Paleontologist and Archeologist services on site during excavation activities as needed. Should there be archeological, prehistoric, historic or Native American findings on the project site, the DESIGN-BUILDER shall provide a security service at night to prevent looting of the site. Service(s) shall be in place until excavation activities are complete.
5. DESIGN-BUILDER shall provide continuous updates of the project record drawings.
6. DESIGN-BUILDER shall install, protect and maintain any new and existing security fencing in the construction area and in the vicinity of their operations. All openings in the security fence shall be supervised with a full-time security guard when unlocked during construction hours. The security plan shall be approved by LAWA.

5. COORDINATION

A. Coordination

1. DESIGN-BUILDER shall coordinate construction operations included in different sections of the specifications to ensure efficient and orderly installation, connection, and operation, of each part of the work.
2. DESIGN-BUILDER shall schedule construction operations in sequence required to obtain the best results where installation of one part of the work depends on installation of other components, before or after its own installation.
3. DESIGN-BUILDER shall coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components.
4. DESIGN-BUILDER shall make adequate provisions to accommodate items scheduled for later installation.
5. Interpretations of Contract Documents:
 - a. Consult with LAWA to obtain any interpretation in accordance with the Contract Documents.
 - b. Assist in resolution of questions which arise.
 - c. Transmit written interpretations to concerned parties.

6. Coordination and attendance at weekly construction, quality control meetings, and safety meetings.

B. Memoranda

1. DESIGN-BUILDER shall prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
2. DESIGN-BUILDER shall prepare similar memoranda for LAWA and separate sub-contractors if coordination of their work is required.

C. Administrative Procedures

1. DESIGN-BUILDER shall coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other subcontractors to avoid conflicts and to ensure orderly progress of the work. Such administrative activities include, but are not limited to, the following:
 - a. Preparation of DESIGN-BUILDER's construction schedule.
 - b. Preparation of the schedule of values.
 - c. Installation and removal of temporary facilities and controls.
 - d. Delivery and processing of submittals.
 - e. Progress meetings.
 - f. Pre-installation conferences, if specified.
 - g. Startup and adjustment of systems.
 - h. Project closeout activities.
 - i. Payment application review meetings

D. Conservation

1. DESIGN-BUILDER shall coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
2. DESIGN-BUILDER shall salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other sections for disposition of salvaged materials that are designated as LAWA's property.

6. SUBMITTALS

A. Key Personnel Names

1. Within a minimum of 10 working days prior to starting construction operations, the DESIGN-BUILDER shall submit a list of key personnel assignments, including superintendent and other personnel in attendance at project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to project.
2. DESIGN-BUILDER shall post copies of list in project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

B. Daily Construction Reports

1. Prepare a daily construction report recording the following information concerning events at project site:
 - a. List of subcontractors at project site.
 - b. List of separate DESIGN-BUILDERS at project site.
 - c. Count of personnel with names at project site.
 - d. Equipment makes and model at project site.
 - e. Material deliveries.
 - f. High and low temperatures and general weather conditions.
 - g. Accidents.
 - h. Meetings and significant decisions.
 - i. Unusual events (refer to special reports).
 - j. Stoppages, delays, shortages, and losses, workday start and finish time.
 - k. Meter readings and similar recordings.
 - l. Emergency procedures.
 - m. Orders and requests of authorities having jurisdiction.
 - n. Change Orders received and implemented.
 - o. Construction Change Directives received and implemented.
 - p. Services connected and disconnected.
 - q. Equipment or system tests and startups.
 - r. Partial completions and occupancies.
 - s. Completions authorized.

2. DESIGN-BUILDER shall coordinate with LAWA to submit reports via Prolog system.

C. Material Location Reports:

1. At weekly intervals, prepare and submit two (2) copies of a comprehensive list of materials delivered to and stored at project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a LAWA statement of progress with delivery dates for materials or items of equipment fabricated or stored away from project site.

D. Field Condition Reports:

1. Immediately upon discovery of a difference between field conditions and the construction documents, prepare and submit two (2) copies of a detailed report at time of discovery of differing conditions.
2. Submit report with a request for interpretation. Include a detailed description of the differing conditions, together with recommendations for changing the construction documents.

E. Special Reports

1. General:
 - a. Prepare and submit two (2) copies of special reports directly to LAWA within one

day(s) of an occurrence. Distribute copies of report to parties affected by the occurrence. DESIGN-BUILDER shall coordinate with LAWA to submit reports via Prolog system.

2. Reporting Unusual Events:

- a. When an event of an unusual and significant nature occurs at project site, whether or not related directly to the work, prepare and submit two (2) copies of a special report. List chain of events, persons participating, and response by DESIGN-BUILDER's personnel, evaluation of results or effects, and similar pertinent information. Advise LAWA in advance when these events are known or predictable.

F. QA/QC Reports

1. See PR-13/14 "Quality Assurance/Quality Control"

G. Logs

1. Establish and maintain the following logs:

- a. Requests for Clarification Log
- b. Submittals Log
- c. Requests for Information Log
- d. Change Order Log

2. Form of Logs:

- a. Record items on a serial number basis.
- b. Assign individual numbers, in serial order, to each entry.
- c. Begin serial order with No. 1 and continue numerically uninterrupted.
- d. Review status of the above documentation in the Progress Meetings using the logs.
- e. Update logs after each meeting.

7. PROJECT MEETINGS

A. General:

1. DESIGN-BUILDER shall schedule and conduct coordination meetings and conferences at project site, unless otherwise required. DESIGN-BUILDERS fees shall include all required meetings with LAWA, AHJs and other stakeholders.
2. Attendees: DESIGN-BUILDER shall inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify LAWA of scheduled meeting dates and times.
3. Agenda: DESIGN-BUILDER shall prepare the meeting agenda with input from the attendees prior to the meeting. Distribute the agenda in the meeting and review the status of action items.
4. Minutes: DESIGN-BUILDER shall record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including LAWA within three working days of the meeting.

B. Project Kick-off Conference.

1. The objective of this meeting is to introduce the project team members, confirm

understandings, roles, responsibilities, schedules, emergency contacts, neighborhood awareness and outreach, and to review the procedural requirements of the project as established by the contract requirements and the Project Management Plan. LAWA will conduct the project kick-off conference within ten (10) calendar days after the NTP. It will be attended by the DESIGN-BUILDER, LAWA and others as appropriate. LAWA, with input from the DESIGN-BUILDER, will prepare the agenda as well as prepare and distribute the meeting minutes. LAWA shall be a participant in all meetings.

C. Design Coordination Meetings.

1. The objective of these meetings is to proactively facilitate the DESIGN-BUILDER's liaison with LAWA's Master Architect and sub consultants for the purposes of design discussion during construction document development. These meetings are to be held at a mutually agreed upon location in the vicinity of the project site. Attendees shall include appropriate members of the DESIGN-BUILDER, LAWA and others, as appropriate. DESIGN-BUILDER will prepare and distribute the agenda and minutes. Meetings will include an overview of the DESIGN-BUILDER's short-term schedule. Meeting minutes shall be distributed no later than 3 business days after such meeting is held.

D. Design Progress Meetings.

1. The objective of these meetings is to proactively facilitate the DESIGN-BUILDER's completion of the design and construction documents and to establish a mutually acceptable review procedure. The DESIGN-BUILDER will conduct regularly scheduled team meetings during the completion of the design development of the construction documents. These meetings are to be held at a mutually agreed upon location in the vicinity of the project site. Attendees shall include appropriate members of the DESIGN-BUILDER, LAWA and others, as appropriate. DESIGN-BUILDER will prepare and distribute the agenda and minutes. Meetings will include an overview of the DESIGN-BUILDER's short-term schedule. Meeting minutes shall be distributed no later than 3 business days after such meeting is held.

E. Construction Document Reviews.

1. During the development and at the completion of the DESIGN-BUILDER's construction documents, LAWA may require the performance of peer reviews and/or a code certification of the construction documents. The DESIGN-BUILDER shall cooperate and coordinate with LAWA in performance of these reviews and distribution of construction documents.

F. Preconstruction Conference:

1. DESIGN-BUILDER shall schedule a preconstruction conference before starting construction, at a time convenient to LAWA, but no later than 10 working days after completion of construction documents. DESIGN-BUILDER shall hold the conference at project site or another convenient location. DESIGN-BUILDER shall conduct the meeting to review responsibilities and personnel assignments.
2. Attendees: Authorized representatives of LAWA, DESIGN-BUILDER and its consultants, superintendent; major sub-DESIGN-BUILDERS; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with project and authorized to conclude matters relating to the Work.
3. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.

- c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.
 - e. Procedures for processing field decisions and Change Orders.
 - f. Procedures for requests for interpretations (RFIs).
 - g. Procedures for testing and inspecting.
 - h. Procedures for processing Applications for Payment.
 - i. Distribution of the construction documents.
 - j. Submittal procedures.
 - k. Preparation of Record Documents.
 - l. Use of the premises and protection of existing building.
 - m. Work restrictions.
 - n. LAWA's occupancy requirements.
 - o. Responsibility for temporary facilities and controls.
 - p. Construction waste management and recycling.
 - q. Parking availability.
 - r. Office, work, and storage areas.
 - s. Equipment deliveries and priorities.
 - t. First aid.
 - u. Security.
 - v. Progress cleaning.
 - w. Working hours.
4. Minutes: Meeting minutes shall be recorded by the DESIGN-BUILDER and shall be distributed no later than 3 business days after such meeting is held.

G. Progress Meetings & Reports:

- 1. LAWA shall conduct progress meetings at weekly intervals. The objective of these meetings is to review and monitor progress, procedures, issues, schedules, and other concerns of the project throughout the construction phase. These meetings will be held on a weekly basis at the site with representatives of the DESIGN-BUILDER, LAWA, and others as appropriate. LAWA will prepare and distribute the agenda and meeting minutes.
- 2. Agenda:
 - a. Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of project.
 - b. DESIGN-BUILDER's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to DESIGN-BUILDER's construction schedule. Determine how construction behind schedule will be expedited so as to recapture the required schedule; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the

Contract Time.

- c. Review schedule for next period.
- d. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Status of correction of deficient items.
 - 14) Field observations.
 - 15) Requests for information (RFIs).
 - 16) Status of proposal requests.
 - 17) Pending changes.
 - 18) Status of Change Orders.
 - 19) Pending claims and disputes.
 - 20) Documentation of information for payment requests.
3. Schedule Updating: DESIGN-BUILDER shall revise DESIGN-BUILDER's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.
4. Weekly Report: Submit in accordance with the following –

Date:

WEEKLY JOB STATUS REPORT

			CREWS	TOTAL
MAN COUNT				

Core Staff

Operations, Safety, QC

NEW HIRE (first week)

Names			
Classification			

RETIRING (last week)			
Name		Project Engineer	
Classification			
Name		Superintendent	
Classification			
Name		QC Inspector	
Classification			

TRANSFER			
Names			
Classification from			
Classification to			

SAFETY	WEEK	JOB TO DATE
WORK HOURS		
INCIDENTS		
LOST TIME INJURY		
RECORDABLE		
FIRST AIDS		
NEAR MISS		

QUALITY	OPEN	CLOSED
RFI		
SUBMITTAL		

**Milestone accomplishments
(narrative):**

H. Coordination Meetings:

1. DESIGN-BUILDER shall conduct project coordination meetings when coordination with separate subcontractors or LAWA is required. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and pre-installation conferences.
2. Attendees: In addition to representatives of LAWA, each separate DESIGN-BUILDER,

supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with project and authorized to conclude matters relating to the Work

3. Agenda:

- a. Review and correct or approve minutes of the previous coordination meeting, if any. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - b. Combined DESIGN-BUILDER's Construction Schedule: DESIGN-BUILDER shall review schedule against separate sub-DESIGN-BUILDER's schedules. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to DESIGN-BUILDER's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the contract time.
 - c. Schedule Updating: DESIGN-BUILDER shall revise DESIGN-BUILDER's construction schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.
 - d. DESIGN-BUILDER shall review present and future needs of each DESIGN-BUILDER present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Change Orders.
4. Reporting: DESIGN-BUILDER shall record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting. Meeting minutes shall be distributed no later than 3 business days after such meeting is held.

8. COORDINATION WITH WORK UNDER SEPARATE CONTRACTS**A. General:**

1. DESIGN-BUILDER shall cooperate and coordinate with LAWA's other DESIGN-BUILDERS and contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this contract.
 - a. At the DESIGN-BUILDER's request, LAWA will provide the scope of its separately contracted work to enable the DESIGN-BUILDER to coordinate the work of this contract with work of LAWA's other DESIGN-BUILDERS and contractors.
 - b. The DESIGN-BUILDER shall coordinate construction operations that are mutually dependent for proper installation, connection, and operation, to ensure the efficient and orderly installation of the Work.
 - c. DESIGN-BUILDER shall schedule installation operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - d. DESIGN-BUILDER shall coordinate installation of components to ensure maximum accessibility for required maintenance, service, and repair.
 - e. DESIGN-BUILDER shall make provisions to accommodate items scheduled for later installation.
 - f. Where necessary, prepare memoranda for distribution to each entity involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.

B. Administrative Procedures:

1. DESIGN-BUILDER shall coordinate scheduling and timing of required administrative procedures with activities of other contracts to avoid conflicts and ensure orderly progress of the work. Such administrative activities include, but are not limited to, the following:
 - a. Preparation of schedules.
 - b. Delivery and processing of coordination submittals.
 - c. Progress meetings.
 - d. Project closeout activities.
2. Installation Coordination:
 - a. Coordinate with the activities of other DESIGN-BUILDERS to ensure efficient and orderly installation, connection, and operation.
 - b. Coordinate loading dock and elevator usage with LAWA.
 - c. Coordinate staging area with LAWA.
 - d. Coordinate connection of building utilities as required.

C. Pre-installation Conferences:

1. DESIGN-BUILDER shall conduct pre-installation conferences at the project site before each installation activity that requires coordination. Parties involved in, or affected by, installation shall attend meeting. Advise LAWA of scheduled meeting dates 14 days prior to the meeting.
2. DESIGN-BUILDER shall review progress of other work and preparation for installation,

including possible conflicts, time schedules, space and access limitations, and acceptability of substrates.

3. DESIGN-BUILDER shall record meeting minutes and distribute within 3 days of the meeting.

D. Coordination

The DESIGN-BUILDER shall coordinate and be aware of projects that are occurring in the vicinity of the ATMP Landside Improvements Project that will interface with its work. Construction logistics as well as sharing of haul routes and equipment movements within the affected areas will need to be coordinated with LAWA and other contractors. The DESIGN-BUILDER shall make itself aware of the status and progress of these projects and coordinate interface requirements.

Related Projects, but not limited to:

	Description	Start	Finish
1.	ATMP Project – Concourse 0	Q2 2023	Q3 2028
2.	ATMP Project – Terminal 9	Q2 2024	Q3 2028
3.	ATMP Project – Airfield Improvements	Q1 2023	Q4 2025

Additional Projects Consideration(s) that require additional coordination:

1. Demolition of Existing Roadways
Sky Way, Vicksburg Ave, 96th St, Alverstone Dr, Sepulveda Ramps & Bridges, etc.
2. Demolition of Existing Facilities
APD Building, APD Trailers, Billboards, LAX-it, Park One, SAAP 3, Utilities, Miscellaneous Fences & Gates, etc.
3. New Passenger Drop-off / Pickup Areas
aka Rotaries @ ITF West, ITF East, CONRAC, etc.
4. New Terminal 9 Circulation Roads
Roadways to and from T9 at Jetway Blvd and Century Blvd with CTA connection
5. Reconfiguration of LAX Gateway
Pylons & Signage, Landscaping, Lighting, Exterior Architecture, etc.
6. Temporary Improvements to Enable Construction Phasing
Temporary Roadways, Detours, etc. as required for MOT
7. Additional Roadway Improvements
Airport Blvd Widening (Phases 1 & 2)
93rd St Sidewalk Improvements
Arbor Vitae Striping for 3rd lane
Westchester Parkway Improvements
96th St. Cul-De-Sac and Street Improvements
Westchester Parkway & Jetway Intersection Improvements
Century Blvd Widening & Multi-Use Path
98th Street Widening
98th Street Improvements
98th Street Restripe
96th St Sidewalk Improvements
Alley Reconstruction around Lot 10 (Belford Ave))
New Tuskegee Way

111th St Widening

END OF SECTION PR 02 PROJECT MANAGEMENT AND COORDINATION

PR-03 TRAFFIC COORDINATION, CONSTRUCTION AREA ACCESS, AND SECURITY**1. GENERAL**

DESIGN-BUILDER shall conduct all operations in a manner that will cause no interference with the normal operation of the airport.

2. PUBLIC CONVENIENCE AND SAFETY**2.01 Traffic and Access**

- A. DESIGN-BUILDER shall comply with requirements set forth in the environmental mitigation and special construction requirements PR 18.
- B. DESIGN-BUILDER shall conduct all operations in a manner that will cause no interference with normal operation of the Airport. In all operations DESIGN-BUILDER shall be governed by the regulations and rules of LAWA, comply with FAA AC No. 150/5370-2F, Operational Safety on Airports during construction, and shall cooperate fully with LAWA and Airport Manager. All temporary blockages for the movement of construction materials or equipment shall be coordinated with and approved by LAWA, DOT, AHJ at least forty-eight (48) hours in advance of any closure.
- C. DESIGN-BUILDER shall
 - 1. Adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while driving when performing any work for, or on behalf of LAWA.
 - 2. Conduct workplace safety initiatives in a manner commensurate with the size of the business, such as
 - a. Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and
 - b. Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.
- D. DESIGN-BUILDER shall provide their Traffic Management Plan (TMP), including the location and types of signs to be used, at least 30 days prior to installation of the signs. Thereafter, and not later than fifteen (15) days prior to subsequent changes required by LAWA for said circulation, sign locations and types, DESIGN-BUILDER shall submit revised Plans to LAWA.
 - 1. For LAWA governed facilities: At least thirty (30) days prior to any requested closure of a LAWA roadway or facility, DESIGN-BUILDER shall submit an Area Shutdown Request (ASR) for LAWA's review and approval. DESIGN-BUILDER shall not begin implementation of any closure prior to receiving LAWA's written approval of the ASR.
 - a. For Federal Aviation Administration (FAA) governed facilities: At least thirty (30) days prior to any requested access to AOA (Air Operations Area), DESIGN-BUILDER shall coordinate through the CALM (Coordination and Logistics Management) team for LAWA's review and approval. DESIGN-BUILDER will not be granted access to any AOA prior to receiving LAWA's written approval.
- 2. For LAWA governed facilities: At least thirty (30) days prior to any requested closure of a LAWA roadway, site or facility, the DESIGN-BUILDER shall submit a LAWA Impact

- Request (LIR) for LAWA's review and approval. The DESIGN-BUILDER shall not begin implementation of any closure prior to receiving LAWA's written approval of the LIR.
3. For the City of Los Angeles governed facilities: DESIGN-BUILDER shall obtain all approvals and permits required by the city and submit documentation of these approvals to LAWA a minimum of ten (10) days prior to start of construction.
 4. For the Caltrans governed facilities: DESIGN-BUILDER shall obtain all approvals and permits required by Caltrans and submit documentation of these approvals to LAWA a minimum of ten (10) days prior to start of construction. The DESIGN-BUILDER shall submit a LIR (LIR) for LAWA's review and approval a minimum of thirty (30) days prior to start of construction.
 5. For the City of Inglewood governed facilities: DESIGN-BUILDER shall obtain all approvals and permits required by the city and submit documentation of these approvals to LAWA a minimum of ten (10) days prior to start of construction.
- E. DESIGN-BUILDER shall ensure its sub-DESIGN-BUILDERS, suppliers, etcetera, comply with this section.
1. Within ten (10) Days after the date of the Notice to Proceed for each work package in Phase 2 and before moving vehicles onto the Site, DESIGN-BUILDER shall submit to LAWA the proposed Plan for vehicular and pedestrian traffic circulation, including the location and types of signs to be used. Thereafter, and not later than fifteen (15) days prior to subsequent changes required by LAWA for said circulation, sign locations and types, DESIGN-BUILDER shall submit revised Plans to LAWA.
 2. LAWA ASR Application: At least thirty (30) days prior to any requested closure of LAWA roadway or facility, DESIGN-BUILDER shall submit an ASR and LIR application form. A sample of this form will be provided to DESIGN-BUILDER at the Pre-Construction Meeting.
- F. DESIGN-BUILDER shall provide and install steel plates to bridge any excavation in the public right-of-way. Such bridging shall be in accordance with the provisions of the latest edition of the Work Area Traffic Control Handbook (WATCH), and in addition, shall have a nonskid surface static coefficient of friction of 0.35 per California Test 342 for all steel plates within the traveled roadway of streets and alleys. When required by LAWA, DESIGN-BUILDER shall certify in writing to LAWA that steel plates to be used in the work meet the required static coefficient of friction. Also when required by LAWA, DESIGN-BUILDER shall have steel plates to be used in the Work tested in accordance with the above standards for the verification of required static coefficients of friction. Testing shall be done by an independent laboratory approved by LAWA. DESIGN-BUILDER shall pay for any costs associated with the testing of steel plates.
- G. DESIGN-BUILDER's operations shall cause no unnecessary inconvenience. The access rights of the public shall be considered at all times. Unless otherwise authorized, traffic shall be permitted to pass through the work areas, or an AHJ approved detour shall be provided.
- H. Safe and adequate pedestrian and vehicular access shall be provided and maintained to: fire hydrants; commercial and industrial establishments; churches, schools and parking lots; service stations and motels; hospitals; police and fire stations; and establishments of similar nature. Access to these facilities shall be continuous and unobstructed unless otherwise approved by LAWA.
- I. Safe and adequate pedestrian zones and public transportation stops, as well as pedestrian crossings of the Work at intervals not exceeding three hundred (300) feet, shall be maintained

unless otherwise approved by the AHJs.

- J. Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access for reasonable periods of time. If backfill has been completed to the extent that safe access may be provided, and the street is opened to local traffic, DESIGN-BUILDER shall immediately clear the street and driveways and provide and maintain access.
- K. DESIGN-BUILDER shall cooperate with the various parties involved in the delivery of mail and the collection and removal of trash and garbage to maintain existing schedules for these services.
- L. Grading operations, roadway excavation and fill construction shall be conducted by DESIGN-BUILDER in a manner to provide a reasonably satisfactory surface for traffic. When rough grading is completed, the roadbed surface shall be brought to a smooth, even condition satisfactory for traffic.
- M. Unless otherwise authorized, work shall be performed in only one-half of active roadways at one time. Unless otherwise shown, at least one lane shall be kept open and unobstructed until the opposite side is ready for use. If only one-half of a roadway is improved, the other half shall be conditioned and maintained as a detour. Flaggers shall be provided continuously at each end of any single-lane operations.
- N. The DESIGN-BUILDER shall provide guards to secure its field offices, staging areas, and work zones as determined by the Design-Builder. Access gates to work zones must be locked during non-working hours. Unattended, open gates in active work areas outside AOA areas will be allowed. All worksites shall be secured with fencing and gawk screening.
- O. Adjacent Property Owner and Business Outreach - Design-Builder shall limit and mitigate impacts to adjacent properties and businesses during Construction Work. In the development of the activities specified by the Communication and Public Outreach Plan, Design-Builder shall include construction impact information, specific to impacted properties. Design-Builder shall reach out to all adjacent property owners to understand the impact of the Project on access, deliveries, parking, etc. and included appropriate mitigation for these impacts in the construction planning effort. Design-Builder shall provide signage, promotional materials and other similar efforts.

2.02 TEMPORARY SIGNAGE FOR BARRICADES

- A. DESIGN-BUILDER shall install and maintain all temporary signage and messaging at all construction barricade locations, access gates, work area access points, etc. as long as the barricades are in place to help direct traffic around work areas and to alternate paths of travel.

2.03 CONSTRUCTION FENCING GRAPHICS

- A. Construction Security Fence is required where work is adjacent to and open to the public right of way. This is a LAWA requirement for fences both inside and outside the Central Terminal Area. The DESIGN-BUILDER to provide an approved construction fencing graphic on the fences. The graphic signage material, when used on chain link fences, is to be 8 ounce mesh polyester scrim and coated with PVC. State of California Fire Rating certification and certificate to be provided to LAWA before installation. Each edge shall be hemmed, welded on all sides w/ grommets at 24"centers. No wind slits or flaps are permissible. Provide two layers of screening material: one layer of printed 70/30 mesh product with 30-35% air-flow

over one layer of AHJ approved mesh screen material. The DESIGN-BUILDER to submit, for LAWA review and acceptance, a separate Construction Fencing Graphics Location Exhibit for each project area. DESIGN-BUILDER shall comply with all applicable State, County, and City requirements for the Construction Fencing. See Appendix for "CONSTRUCTION FENCING GRAPHICS" for the LAWA provided 20', 40', and 60' long panel graphic designs. The panels are to be combined to completely cover the length of the fence. For DESIGN-BUILDER proposed security fence graphic banners for security fence materials/ types other than chain link fence; DESIGN-BUILDER follow PR-10 requirements for substitutions.

2.04 ROADWAY AND STREET CLOSURE, DETOURS, BARRICADES

- A. There shall be no closures or detours without the express written permission of the AHJs. DESIGN-BUILDER shall submit ASR and LIR form(s) which may be provided by LAWA at any time, at least thirty (30) days prior to the proposed shutdown time, for all LAWA or City/State roadways and facilities respectively.
- B. DESIGN-BUILDER shall comply with all applicable State, County, and City requirements for closure of streets and roadways. DESIGN-BUILDER shall provide barriers, guards, lights signs, temporary bridges, flag persons, and watch person. DESIGN-BUILDER shall be responsible for compliance with additional public safety requirements which may arise. DESIGN-BUILDER shall furnish and install signs and warning devices and promptly remove them upon completion of the work.
- C. All public street closures on City of Los Angeles facilities shall be approved in advance by the Board of Public Works (it is estimated that this approval process will take about 2 months). All such closures require an LADOT approved traffic control plan. Street work may be limited by Peak Hour Exemption (LAMC 62.61). The BOE (Construction permits) and BSS (Street use permits) have separate approval processes. Once approved DESIGN-BUILDER shall notify at least forty eight (48) hours in advance of closing, partially closing or reopening, any roadway, street, alley, or other public thoroughfare. DESIGN-BUILDER shall also notify the Police, Fire, Operations, Traffic and Engineering Departments, and comply with their requirements. Deviations must first be approved in writing by LAWA.
- D. K Rail barricades, both concrete barriers and water filled plastic barriers, shall be white. Orange water filled barriers are not allowed unless specifically required by an AHJ.
- E. Steel trench plates shall be secured to prevent slipping due to the braking and turning of heavy vehicles.
- F. All approved haul routes and moratoriums shall be observed.

2.05 Noise

- A. DESIGN-BUILDER shall submit and maintain a Noise Variance from the Los Angeles Police Commission for all night time work between the hours of 9:00pm to 7:00am. Special conditions may apply requiring sound monitoring and sound proofing. Limit all saw cutting, jack hammering and similar activities to daytime hours. The Police Commission advise that they require 6 weeks to approve a Noise Variance, schedule applications in accordance.
 1. Maintain on each work site a log of all activities performed under a variance. Include copies of: Copies of all approved variances, copies of extended variances.
 2. Maintain an office log to include but not limited to: A satellite image of the work areas with each location clearly defined and applicable to each variance. Copies of all applications

for variances, Copies of correspondences (include emails) with the Police Commission, Copies of correspondences and or communications with any residence or property owner adjacent Variance listed work areas. A schedule of planned Variance requirements for the next 6 months. A log of noise emission during night time activity.

3. Install sound monitoring adjacent noise sensitive structures. Log background noise including aircraft.

2.06 Sweeping Requirements

1. DESIGN-BUILDER at all times shall sweep and water to maintain on and off-airport haul roads, and airport pavements used for construction operations and haul in accordance with the plans, the requirements of environmental mitigation and special construction requirements PR 18, and other applicable specifications.
2. DESIGN-BUILDER shall staff and maintain a minimum of one (1) operational sweeper trucks and at least one (1) water truck per active project on site at all times during working and non-working hours.

2.07 LIR Program (LIR)

Airfield and Terminal Modernization Project Mitigation Plan

The LAWA Construction Traffic Task Force (LCTTF) was established as a mitigation measure for the Airfield and Terminal Modernization Project (ATMP), through the Mitigation Monitoring and Reporting Program (MMRP).

The objective of the Task Force is to ensure the contractor is meeting contract requirements for coordination and communications prior to any impacts or closure. The Task Force is comprised of primary stakeholders that will attend the regularly scheduled meetings to review that the overall impacts are identified and addressed by the contractor. Additional stakeholders will be added on an as needed basis as identified in the LAWA Construction Traffic Coordination Work Flow. (See Appendix 1.)

The Contractor is responsible for developing a phased plan of the project and providing a 3-week look-ahead schedule per phase. The contractor will complete the LAWA Impact Request Form (LIR) with any associated permits, traffic control plans and coordination efforts for each impact.

CALM LIR Workshops

CALM LIR Workshops are held weekly at the CALM Trailer 4 within the CTA on Wednesdays at 1:00 pm. The workshops provide the proper environment to discuss new LIRs, current status or issues for existing LIRs, coordination between projects and other agencies to mitigate impact to LAWA, permit issues, etc. Attendees include Project Teams, ATMP Project Managers, ATMP Construction Managers, LAWA Communications, LAWA Inspection, LAWA Landside Operations, Logistics, 3rd Party Coordination, and other City Agencies (BOE, LADOT, BSS, BCA Inspectors assigned to ATMP, etc.).

Executive Briefings

Executive Briefings are held monthly, on the last Tuesday via Teams and office location

TBD. The intent of this meeting is a high-level overview of LAWA Impact Requests (LIRs) and their cumulative impacts on the public right of ways east of Sepulveda Blvd. Each ATMP project team presents a look ahead of roadway impacts as well as a discussion of other projects (LAWA/LAWDWP/DOT) within the LAWA coordination area.

LAWA Impact Request (LIR)

The Airfield and Terminal Modernization Project (ATMP) will impact public areas, and properties not owned by LAX, such as streets, curbs, sidewalks, and business, etc.

The LAWA Impact Request (LIR) has been developed as a checklist to ensure all logistical coordination with other agencies, and LAX programs. This includes coordination and communication with all stakeholders to identify impacts to LAX operations as well as any public area or business. (See Appendix 2.)

LIR Submittal Process

The completed LIRs are submitted by the LAWA Project Manager to the CALM Group for processing and tracking. Once a submittal is received, it is distributed to the Task Force team to review for any additional coordination and logistical needs. The requests are tracked through the LAWA Shutdown Control Center tracking system.

Projects expected to have a large impact to stakeholders and other projects should plan on submitting a draft package which includes the LIR and a description of traffic lane closures to the CALM Group at least 30 days prior to expected implementation date. Some projects have been introduced at least 3-4 months in advance to allow for coordination and planning.

LIRs are approved prior to project implementation and a complete LIR package should be submitted at least 10 days prior to the expected start date. See Appendix 3 for information related to obtaining various permits through City of Los Angeles Agencies.

LIR Requirements

1. A separate Application is required for each area to be impacted.
2. Complete the application in its entirety and attach any Completed/Approved Required documentation. Incomplete applications may be delayed for processing.
3. This package will describe all details related to the submitted Phasing Plan, Logistical Work Plan, and logistical checklist and will be updated as needed to ensure stakeholders are informed of revisions.
4. The Contractor will submit an overall Phasing Plan with a baseline schedule.
5. Within the task specific phasing plan, the contractor will identify specific tasks, which will function as a sub phase to the overall Phasing Plan and schedule.
6. If a Task Specific Phase has separate logistical needs, the contractor will be required to complete a Logistical Work Plan for each of those Task Specific Phases.
7. The Logistical Work Plan will include the following: Scope and description of work, a Communications Plan, identification of coordination plans with all contractor construction activities in the area, and identification of all permits.

LIR Revisions

An LIR Revision will be submitted when an existing LIR when there is changes to the scope of work or dates are extended. For example – work will now be added to the project in a different location.

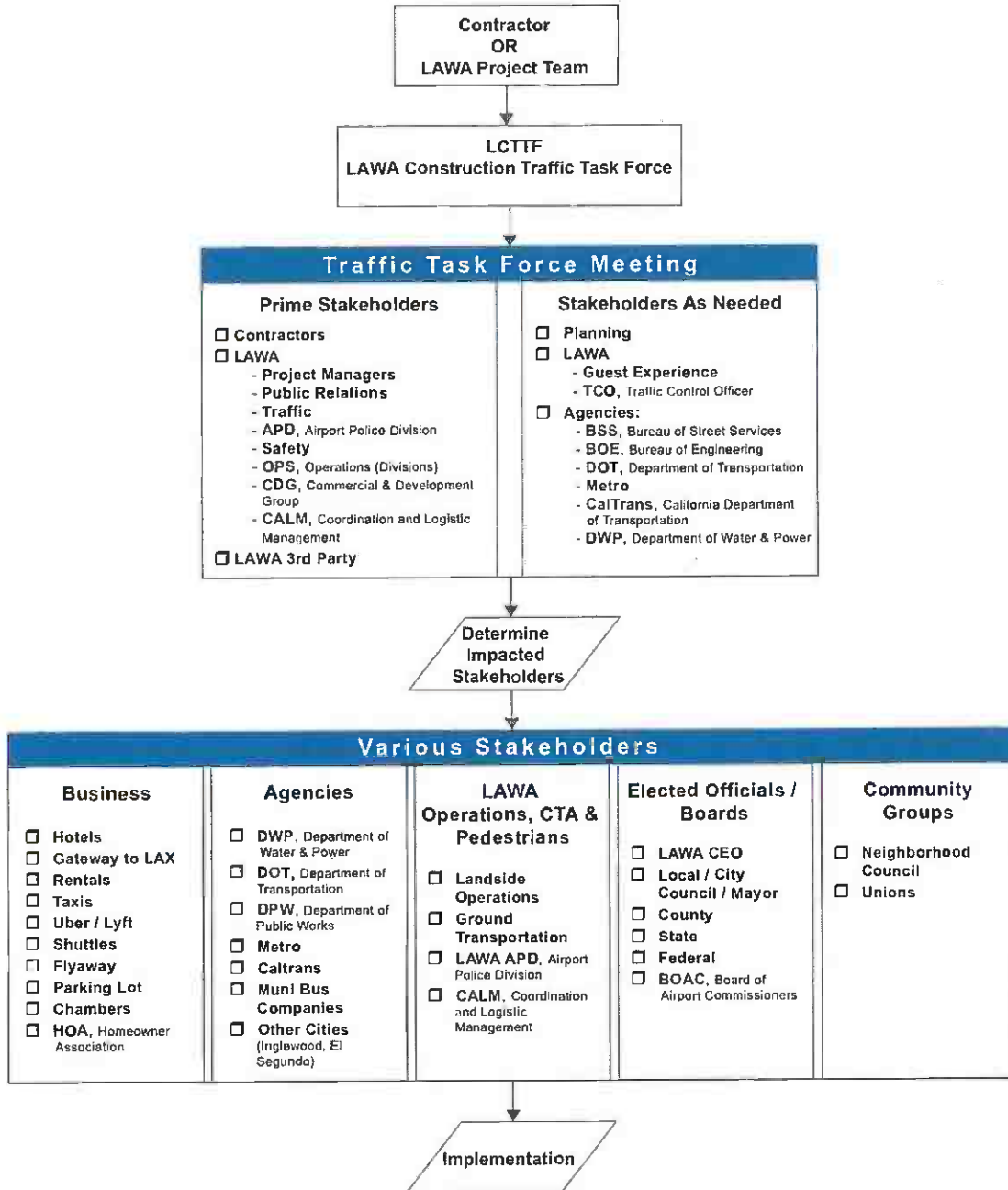
LIR Updates

An LIR Update will be disseminated when an existing LIR has additional work, but the scope of work does not change and neither do the dates. For example – night work is added if the schedule to complete the work by the given date, or a new permit is obtained, etc.

Appendix 1

LAWA Construction Traffic Coordination Work Flow

LAWA Construction Traffic Coordination Work Flow



* Submission may require 30 days for sign-off

Appendix 2

LAWA Impact Request Application



LAWA IMPACT REQUEST APPLICATION

Project Name: _____ Construction Activity: _____	LAX Project No. _____ Tracking No. _____ LAW A Project Manager: _____
The contractor is responsible for contacting the ARCC (424-646-5292) 30 minutes prior to the actual impact and immediately following the restart.	
DESCRIPTION 1. A separate Application is required for each area to be impacted. 2. Complete the application in its entirety and attach any Completed / Approved Required documentation. Incomplete applications may be delayed for processing. 3. This package will describe all details related to the submitted Phasing Plan, Logistical Work Plan, and logistical checklist and will be updated as needed to ensure stakeholders are informed of revisions. 4. The Contractor will submit an overall Phasing Plan with a baseline schedule. 5. Within the task specific phasing plan, the contractor will identify specific tasks, which will function as a sub phase to the overall Phasing Plan and schedule. 6. If a Task Specific Phase has separate logistical needs, the contractor will be required to complete a Logistical Work Plan for each of those Task Specific Phases. 7. The Logistical Work Plan will include the following: Scope and description of work, a Communications Plan, identification of coordination plans with all other contractor construction activities in the area, and identification of all permits.	
FIELD CONTACT INFORMATION Field Contractor: _____ Primary Field Contact Name: _____ Secondary Field Contact Name: _____ Phone: _____ Phone: _____ Email: _____ Email: _____	
SHUTDOWN INFORMATION Detailed Description of Impacted Area(s): _____ _____ _____ Impact: Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> START Day: _____ Date: _____ Time: _____ END Day: _____ Date: _____ Time: _____ General Contractor: _____ Contractor Requester's Name: _____ Phone: _____ Email: _____ Date Submitted: _____	
DO NOT WRITE BELOW THIS LINE	
<i>This LIR package is found to be complete and accurate as of the signed date.</i> Project Manager: _____ Date: _____ Comments: _____ ***** Operations Manager: _____ Date: _____ Comments: _____ Public Relations Manager: _____ Date: _____ Comments: _____ LAW A Construction Traffic Task Force Manager: _____ Date: _____ Comments: _____ <small><i>This document is for communication and deliberative purposes ONLY. Signatories of this Document does not relieve the contractor from any contractual obligations or obtaining any permits not identified in this document. This submission may require 30 days for sign-off.</i></small>	

LAWA IMPACT REQUEST

APPLICATION

TASK SPECIFIC WORK PLAN				
	Required	N/A	Completed	Notes / Description
A1. Written description of the work to be accomplished within each phase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A2. Schedule of proposed work and daily work hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A3. Locations for material stockpiling, staging, and haul routes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A4. Define modification and maintenance plan of existing facilities/ infrastructure during construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A5. Temporary signage/way-finding devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A6. Stakeholder impacts and mitigations (Noise, vibration, flaggers, etc.) access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A7. Routing of temporary utilities, lines, and points of connection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A8. Any other applicable unique conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A9. Ingress/egress locations and traffic routes for movement of the contractor's equipment, materials and workers to the work locations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A10. Locate on plans - construction zone accommodation of vehicular traffic including signage, traffic striping, flagging, temporary closures, barricades, and detours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A11. Locate on plans - provisions and plans for worker parking and routes to and from the work area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A12. Identify locations and related work zones for worker/material handling equipment such as cranes, and lifts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A13. Provide emergency vehicle access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A14. Identify security provisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A15. Locate on plans fencing and enclosure provisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A16. Identify on-site parking provisions if applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A17. Emergency contacts must be posted on plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

LAWA IMPACT REQUEST APPLICATION

LOGISTICAL CHECKLIST				
COMMUNICATIONS	Required	N/A	Completed	Notes / Description
B1. Community Outreach				
a. Community Meeting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. Construction Bulletin - 48 hours notification required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. Operations Advisory - 48 hours notification required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. Traffic Advisory - 72 hours notification required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B2. Board of Airport Commissioners				
B3. Council District(s)				
B4. LA City Council	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B5. Other Elected Officials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B6. Communication & coordination with other jurisdictions outside City of Los Angeles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B7. Communication & coordination with other projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PERMITS FROM AGENCY HAVING JURISDICTION				
B8. 7460 FAA Application	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B9. LABOE, Los Angeles Bureau of Engineering				
a. Construction (A) Permits - Minor street construction in the public right-of-way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. Construction (B) Permits - Major street construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. Excavation (E) Permits - Excavation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. Excavation (U) Permits - Excavation or trenching in the public right-of-way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e. Revocable (R) Permits - Conditional encroachment of the public right-of-way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f. Sewer (S) Permits - Sewer and Storm Drain Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
g. Maintenance Hole Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B10. LADBS, Los Angeles Department of Building and Safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B11. LABSS, Los Angeles Bureau of Street Services				
a. Overload Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. Newsrack Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. Newsstand Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. Curb Painting Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e. Tree Root Prune Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f. Tree Prune Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
g. Tree Removal Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
h. Tree Planting Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
i. House / Object Move Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
j. Material Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B12. LABSL, Los Angeles Bureau of Street Lighting -Temp Street Lights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B13. BCA, Bureau of Contract Administration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B14. Dig Alert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

LAWA IMPACT REQUEST APPLICATION

LOGISTICAL CHECKLIST				
PERMITS FROM AGENCY HAVING JURISDICTION (Continue)	Required	N/A	Completed	Notes / Description
B15. Los Angeles Police Department Night Work Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B16. LADOT, Los Angeles Department of Transportation				
a. Permit Plan Review	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. Temporary Traffic Control Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. Traffic Control Officers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. Temp Traffic Signal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B17. Bus Route / Bus Stop Impacts (Metro, LADOT, Culver City, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B18. TCTMC, Transportation Construction Traffic Management Committee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B19. California Department of Transportation, Caltrans				
a. Encroachment Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. Caltrans TCOS (COZEED)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B20. Utilities Notification and/or Utilities Termination				
a. DWP, Department of Water and Power	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. SoCalGas, Southern California Gas Company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. Cable Company Name _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. Phone Company Name _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B21. Environmental Permits				
a. Identify the means for dust/dirt/debris mitigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. SWPPP, Storm Water Pollution Prevention Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. AQMD, Air Quality Management District	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. Pipeline Regulatory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B22. U. S. Department of Transportation Pipeline and Hazardous Materials Safety Administration				
a. Hazardous Materials Safety Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. Pipeline Safety Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
OTHER				
B23. Trash Pick Up Impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B24. Miscellaneous:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Appendix 3

LIR Helpful Information

5/27/2022

Things to keep in mind for LIR approvals:

Peak Hour Exemption – Bureau of Engineering

- **LAMC 62.61 – Peak Hours. Jurisdiction: Board of Public Works, BOE or BSS**
 - “Peak Hour Exemption” is defined as Monday-Friday, 6 am to 9 am and 3:30 pm to 7 pm.
 - City Council District – Proof of concurrence or proof of outreach to them
 - Description of job (location and work being performed), length of job, TCP, and why exemption is needed
 - Exemptions are granted for a period of up to 2 months. Extensions are available. Apply for extension 2 weeks before expiration
- **LAMC 41.40 – Construction Noise. Jurisdiction: Board of Police Commissioners**
 - Monday-Friday: before 7 am and after 9 pm.
 - Saturday: before 8 am and after 6 pm
 - Sunday-All Day

Reference: BOE Special Order 02-0418:

<http://eng2.lacity.org/docs/sporders/2018/SO02-0418.pdf>

City of Los Angeles Holiday Moratorium: Dates are usually published in the 3rd week of September.

http://eng2.lacity.org/holiday_moratorium/

LAX Holiday Moratorium

- Friday Before Thanksgiving – 0600 hours to Monday after Thanksgiving – 0600 hours
- Friday Before Christmas– 0600 hours to January 2nd – 0600 hours
 - Exemption Requests due by November 1st

No Parking - TANSAT

Contract Administration – 10 Day Notification

From the Brown Book Section 7-10.1 - “Traffic and Access” (which supersedes the Green Book specifications):
 “At least 10 days before the start of construction, the Contractor shall notify, in writing, abutting property occupants of the proposed construction start date. A copy of said written notification shall be provided to the Inspector for approval before distribution to the occupants of the abutting property.”



Permits, Bids, Insurance, and Business Certification

Engineering Permits:

- [A-Permits](#) - Minor street construction in the public right-of-way
- [B-Permits](#) - Major street construction
- [E-Permits](#) - Excavation
- [R-Permits](#) - Revocable permits to grant conditional encroachment of the public right-of-way by private parties
- [S-Permits](#) - Sewer and Storm Drain Permit
- [U-Permits](#) - Excavation or trenching in public right-of-way
- [Maintenance Hole Permit](#)
- [Permit & Procedure Manual for Department of Public Works, Bureau of Engineering](#)
- [Summary of Permit Fees from Los Angeles Department of Public Works, Bureau of Engineering](#)

Street Services Permits:

- [Overload Permits](#)
- [Building Materials Permits](#)
- [Newsrack Permits](#)
- [Newsstand Permits](#)
- [Street Closure Permits](#)
- [Water Discharge/Fire Test Permit](#)
- [Curb Painting Permits](#)
- [House/Object Move Permits](#)
- [Entrance Canopy Permits](#)
- [Special Events Permits](#)

Sidewalk or Building Materials Permits for (lanes and sidewalk closures) temporary construction activities, please contact Marsha Jackson at Street Services Investigation and Enforcement Division 213-847-6086, marsha.jackson@lacity.org.



CALM (Construction and Logistics Management) LIR Helpful Information

4. MINOR STREET CONSTRUCTION – The A-Permit

4.1 A-Permit Description and Purpose

The purpose of the A-Permit is to allow minor street construction in the public right-of-way. The public right-of-way generally consists of street easements that contain City streets, lanes, alleys, parkways, and sidewalks. The public right-of-way also includes public easements and unimproved streets. Construction within the public right-of-way is under the jurisdiction of the Department of Public Works, Bureau of Engineering (BOE).

Minor street construction consists of new driveway installation and repair, sidewalk installation and repair, curb and gutter repair, and installation of streetscape fixtures and street tree wells. It also includes installation of curb drains and street repairs for minor excavations in or near the street. It is further limited to work that will not alter an established flowline of a gutter or alter the existing grade of a sidewalk or street. The A-Permit is the City's process of ensuring that minor street construction meets the City's design and materials specifications and that construction work is properly inspected. The A-Permit process ensures that the applicant is receiving a quality construction product.

City's Authority for the A-Permit Los Angeles Municipal Code (LAMC), Section 62.105, requires a permit be obtained for construction in the public right-of-way.

Department of Transportation **Citywide Temporary Traffic Control**

The CTTC Division of the City of Los Angeles Department of Transportation reviews and oversees implementation of short-term (less than 72 hours) Temporary Traffic Control Plans. Our function is to ensure Contractor compliance with Federal and State principles and standards when implementing Temporary Traffic Controls (TTC) on City Right-of-Way. This is intended to provide for the safe and efficient movement of road users through and around TTC zones while reasonably protecting users, workers, and equipment in accordance with the California Manual of Uniform Traffic Control Devices, CAMUTCD, Part 6 (2016). This page provides guidance & information needed to submit Worksite Temporary Traffic Control Plans to the CTTC Division. These items will assist our team in understanding the nature of your work, and help us in providing a quick turn-around time for our review.

Please refer to our TCP Requirement flowchart to determine if a WTCP should be submitted. [Click here to view TCP requirement flowchart](http://basic.cityofla.acsinfo.org/sites/g/files/wph266/f/TCP%20Decision%20Matrix%202018Feb_1.pdf)
http://basic.cityofla.acsinfo.org/sites/g/files/wph266/f/TCP%20Decision%20Matrix%202018Feb_1.pdf

Important Note: Visit: <http://eng.lacity.org/permits/tctmc> and click on *TCTMC Streets of Significance Maps* to verify that no part of your Traffic Control set up is located on a Street of Significance within any Metro TCTMC impact Areas.

If your project falls within TCTMC jurisdiction, please forward a request to eng.tctmc@lacity.org for inclusion to the next available agenda.



CALM (Construction and Logistics Management) LIR Helpful Information

Requirements For Temporary Traffic Control Plans Submitted For Review

1. Cover letter on company letterhead, listing contact information, job location, approximate start and duration of work (for each Phase if applicable), City Agency Permit Log #, Company project #, and a brief description of project work. [Click Here for Sample of Cover Letter](#)
2. Construction Plan showing dimensions to property lines or other pertinent reference points. [Click Here for Sample of Construction Plan](#)
3. Copy of appropriate City Agency Permit Application, or Permit if already issued. [Click Here for Sample of Permit Application](#)
4. Worksite Traffic Control Plan (Conceptual) showing the following: [Click Here for Sample of Plan](#)
 - o Existing conditions of the worksite and roadway showing striping, lane widths, intersection & driveway locations, and signalization or Right-of-Way assignment controls. (field verification of existing conditions is required - include photos).
 - o Identify any major businesses and/or entities around the proposed work areas, such as schools, hospitals, stadiums, commercial centers, etc.
 - o Identify appropriate Pages from current WATCH Manual or Typical Applications from current CAMUTCD being implemented.

To initiate a review of your Worksite Traffic Control Plan, (WTCP) please [CLICK HERE](#) and provide ALL required project information listed above.

<https://docs.google.com/a/lacity.org/forms/d/e/1FAIpOLSdUAo3Zy4OF7w3CwruSI0bpcZhHcG91tbm8zPFoSMqE73Xc-w/viewform>

Note: Processing of your request will not begin until ALL of the following documents are submitted to:

ladot.cttc@lacity.org

- 1) Cover letter on Primary Contact Company letterhead
- 2) Copy of BSS/BOE Permit Application
- 3) Copy of Construction/Civil Plan
- 4) Copy of Worksite Traffic Control Plan (WTCP) showing the following:
 - Existing conditions at worksite Field Verified - include Photos
 - Appropriate Page No. from latest WATCH Manual or CAMUTCD
 - Identify major businesses and/or entities around the proposed work area such as schools, hospitals, commercial centers, etc.

Please address subject line of email as follows:

SUBJECT: Primary Contact Company, Job Location, BSS/BOE Permit/Reference Number

2.08 ASR Program (ASR)

Central Terminal Area (CTA) Construction Projects

The Central Terminal Area is managed by LAWA with a particular focus on traffic lane closures and pedestrian impacts. The following items are of vital importance with projects in the Central Terminal Area. Strict adherence to these items is required:

1. Design Review – Fully vetted by all LAWA stakeholders
2. Project must be tracked through the PERT Review Process (see below for details)
3. ASR Submittals (see below for details)
4. Commitment to schedule – projects must start and complete on time due to the space and time constraints in the CTA

Project Evaluation Response Team (PERT) Process

The PERT Process reviews, approves, and monitors lifecycle of Capital and Tenant projects at LAWA Facilities. It is a systematic approach to managing projects with input from all LAWA stakeholders. It protects LAWA assets and facilitates project quality and consistency. The projects are reviewed from Concept through design to construction completion. Contact Steve Shack (Tenant Program Administrator) at 424-646-5249 or sshack@lawa.org with any additional questions.

CALM CTA Roadway Coordination Meetings

CALM CTA Roadway Coordination meetings are held weekly at the CALM Trailer 4 within the CTA on Wednesdays at 9:30am. The coordination meetings provide the proper environment to discuss new ASRs, current status or issues for existing ASRs, coordination between projects and other contractors to mitigate impact to the Central Terminal Area Roadways. Attendees include Project Teams, Project Managers, Construction Managers, LAWA Communications, LAWA Inspection, LAWA Landside Operations, Airport Police, and Logistics. Contact Mark Henry (CALM Area Resident Manager – Roadways) at 424-646-7167 or mhenry@lawa.org with any additional questions.

CALM Pre-ASR Meetings

CALM Pre-ASR meetings are held weekly at the CALM Trailer 4 within the CTA on Wednesdays at 8:30am. This meeting is an opportunity for any Landside project to present ASRs prior to submitting to the Shutdown Control Center. At this meeting, the attendee should bring a draft of the ASR as well as supporting exhibits. Contact Mark Henry (CALM Area Resident Manager – Roadways) at 424-646-7167 or mhenry@lawa.org with any additional questions.

CALM CTA Nightly Huddle Meetings

For nightly coordination purposes, the contractor is required to attend the 11:30pm Nightly Huddle at 651 World Way South, Trailer 4. Contact Debbie Miller (CALM Night Area Resident Manager) at 424-646-6017 or dmiller@lawa.org with any additional questions.

Area Shutdown Requests (ASR)

The Area Shutdown Request (ASR) is a request to shutdown any traffic lane, restriction to public access, elevator/escalator, or restroom located on LAWA property that will cause an operational impact.

The ASR review includes the following:

1. Identify Impacts (Facilities, Stakeholders, Operations)
2. Gather Facts (Time, Duration, Purpose, Contacts)
3. Determine Area
4. Develop Mitigation Plan
5. Review Contractor Work Plan

ASR Submittal Process

The completed ASRs are submitted by the LAWA Project Manager to the Shutdown Control Center for processing and tracking. Once a submittal is received, it is distributed to the LAWA Review team to review for any additional coordination and logistical needs. The requests are tracked through the LAWA Shutdown Control Center tracking system.

To guarantee ASR approval for on-time implementation, projects expected to have a large impact to stakeholders and other projects should plan on submitting a draft package which includes the ASR and a traffic control plan to the Shutdown Control Center at least 30 days prior to expected implementation date. Some projects have been introduced at least 3-4 months in advance to allow for coordination and planning.

ASRs are approved prior to project implementation and a complete ASR package should be submitted at least 30 days prior to the expected start date. In addition, a site walk is typically completed 3 weeks prior to the ASR submittal to give a better understanding to Airport Operations, CALM (Wayfinding and Signage) and the Project Management team of all field conditions.

CALM / ASR Requirements

8. A separate ASR is required for each area to be impacted.
9. Complete the application in its entirety and attach any Completed/Approved Required documentation. Incomplete applications may be delayed for processing.
10. This package shall describe all details related to the submitted Phasing Plan, Logistical Work Plan, and logistical checklist and will be updated as needed to ensure stakeholders are informed of revisions.
11. The Contractor shall submit an overall Phasing Plan with a baseline schedule.
12. Within the task specific phasing plan, the contractor shall identify specific tasks, which will function as a sub phase to the overall Phasing Plan and schedule.
13. If a Task Specific Phase has separate logistical needs, the contractor will be required to complete a Logistical Work Plan for each of those Task Specific Phases.
14. The Logistical Work Plan shall include the following: Scope and description of work, a Communications Plan, identification of coordination plans with all contractor construction activities in the area, and identification of all permits.

ASR Revisions

An ASR Revision shall be submitted when an existing ASR changes in scope of work or dates are extended. For example – work will now be added to the project in a different location. Date extension requests shall be sent to the SCC at least one week prior to ASR expiration date.

ASR Updates

An ASR Update shall be disseminated when an existing ASR has additional work, but the scope of work does not change and neither do the dates. Contractor shall submit addendums to the ASR to the SCC for any changes that affect the work area or airport operations. The SCC shall be notified when work is completed.

Barricades and Wayfinding

Utilize blue screened fence panels to secure work areas. Screening at specific locations shall be omitted if it creates an unsafe condition. Barricades shall be maintained in like-new condition for the life of the project.

Construction activity can create very complex navigational challenges for the passenger. Temporary signs may be necessary to safely and efficiently move passengers through the airport environment in affected areas. The primary goal of the temporary signs is to maintain the integrity of the wayfinding system. It is important to have consistency between permanent and temporary signs. Temporary signs will be similar in appearance with the exception of fabrication materials and mounting methods. This process allows the signage system to maintain visual continuity, clear messaging, and a sense of permanence thus instilling confidence in the passengers as they find their way through the airport. The PDG Sign Shop will design and produce all temporary wayfinding signage necessary during construction and/or as a result of construction as an interim solution to a forthcoming permanent plan. The project is responsible for cost of design and production. Contact Angela Flores (CALM Sign Shop Manager) at 424-646-7086 or aflores@lawa.org with any additional questions. Temporary Barricade and Signage standards can be found in the Design and Construction Handbook as well.

Additional Information

Typical CTA Work Hours: 12am-8am (subject to change related to Airport Operational issues)

LAX Holiday Moratorium (dates subject to change year to year – below is example)

- Thanksgiving: Friday before Thanksgiving (0600) through Monday after Thanksgiving (2100)
- Christmas/New Year's: Friday before Christmas (0600) through January 2nd (2100)
- ASR Deadline is November 1st to Shutdown Control Center

Water Filled barricades shall be white in color.

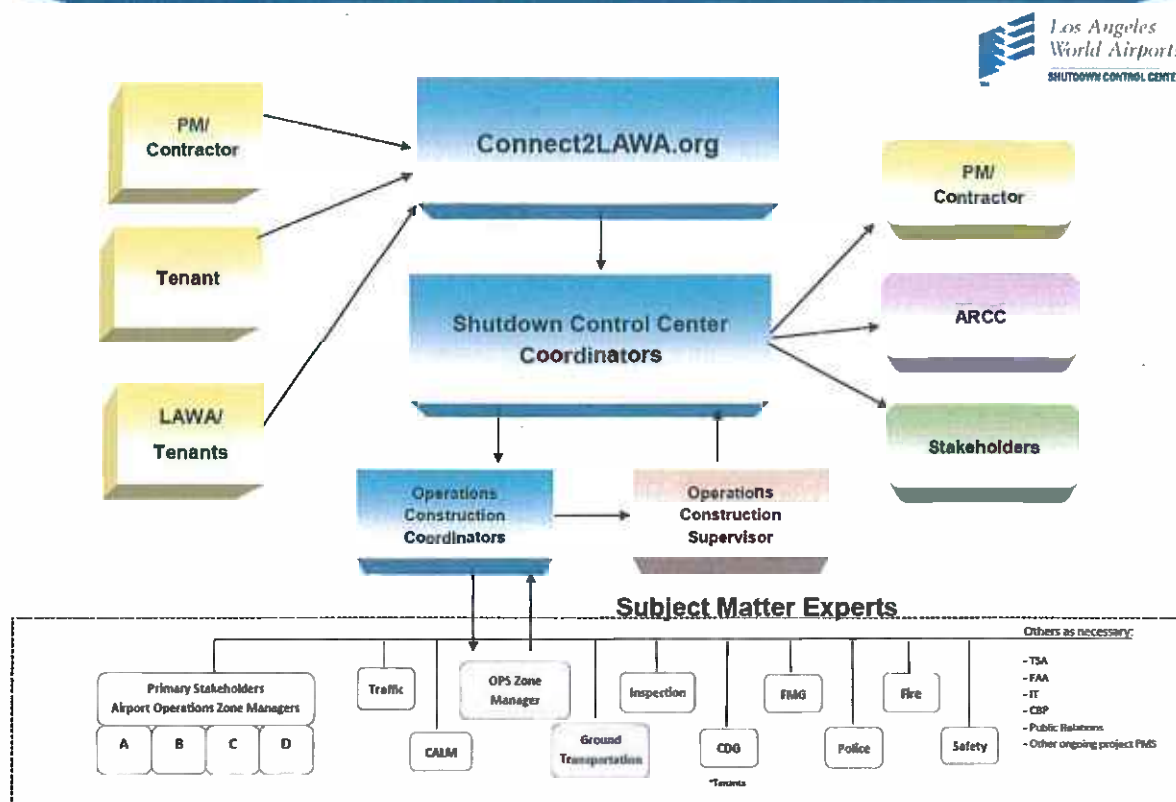
ADA compliant pedestrian paths shall be maintained at all times. Flagmen shall be provided to assist guests around work areas when work is taking place and/or it creates an unsafe condition to the guest along the designated path.

Only LAWA approved signage may be posted. No advertising allowed, including contractor branding.

Appendix 1

Area Shutdown Requests Work Flow

Area Shutdown Request (ASR) Flowchart



PCSCASRFlowchart070815

Appendix 2

Area Shutdown Request Application



AREA SHUTDOWN REQUEST Application

LAX Project No. _____ Contractor Tracking # _____ - _____ LAWA Tracking # _____ - _____
Construction Project: _____ LAWA Project Manager: _____

In Case of Emergency call 310-646-7911 at LAX

1. An application must be received 30 days prior to the area shutdown time - NO EXCEPTIONS
2. A separate application is required for each area to be shutdown. A USR may be required to coincide with the ASR if it impacts Airport Operation. Submit both applications at the same time for processing.
3. Complete the application in its entirety and attach any backup documentation. Incomplete applications may be delayed for processing.
4. The Contractor is RESPONSIBLE FOR CONTACTING the ARCC (Airport Response Coordination Center), 30 minutes prior and upon completion. (ARCC) 424-646-LAWA (5292), at prompt enter #4-shutdown, #1-shutdown. NOTE: Unexpected work that may delay restore time shall be reported immediately to the ARCC
5. Shutdown times may change without notice due to airport operational priorities.
6. Requests received on Saturday and Sunday or after 1:00 p.m. Monday through Friday will be marked as RECEIVED on the following business day.

SHUTDOWN TIMES MAY CHANGE WITHOUT NOTICE DUE TO AIRPORT OPERATIONAL PRIORITIES

(Select all affected areas per task)

☐ Traffic Flow ☐ Elevator ☐ Parking Structure ☐ AOA ☐ Crane Pick
☐ Sidewalk ☐ Escalator ☐ Customer Flow ☐ CUP ☐ Other _____

Operational Zone:

☐ A (T1 - T3) ☐ B (TBIT) ☐ C (T4 - T8) ☐ D (Roadway & Parking Structure) ☐ E (AOA)

Affected Buildings/Systems: _____

Purpose: _____

Airfield: _____ Terminal: _____ Floor/Level: _____ Landside: _____
(Roadways and Parking Structures)

FIELD CONTACT INFORMATION:

Contractor: _____ Contact Name: _____

Phone: _____ Email: _____

SHUTDOWN INFORMATION:

Day: _____ Date: _____ Time: _____

RESTORE INFORMATION:

Day: _____ Date: _____ Time: _____

Comments: _____

General Contractor: _____ Contractor Requestor's Name: _____

Phone: _____ Email: _____ Date Submitted: _____

DO NOT WRITE BELOW THIS LINE, FOR SHUTDOWN CONTROL CENTER USE ONLY

Date Received: _____ ☐ APPROVED

Comments: _____

Shutdown Control Center Manager

Date



AREA SHUTDOWN REQUEST Impact Analysis

Contract No. _____ Contractor ASR Tracking # _____ LAWA ASR Tracking # _____

Project: _____

Area to be Shutdown / Specific Location

Impact of Work on Systems/Equipment/Stakeholders

Proposed Work Plan for Implementing the Shutdown

ATTACH DOCUMENTATION OF FIELD FORENSIC INVESTIGATION, SKETCHES, DIAGRAMS, PHOTOS, AND ADDITIONAL NARRATIVE EXPLANATION AS APPROPRIATE. PROVIDE NAMES OF SPECIFIC STAKEHOLDERS IMPACTED.



AREA SHUTDOWN REQUEST Impact Analysis Checklist - 1 of 2

Contract No. _____ Contractor ASR Tracking # _____ LAWA ASR Tracking # _____

Construction Project: _____

Utility to be shutdown: _____ Location: _____

☐ Field Forensic Investigations and Documentation Complete Date: _____

NOTE: CONTRACTOR IS REQUIRED TO COMPLETE AND DOCUMENT FIELD FORENSIC INVESTIGATIONS TO VERIFY AS-BUILT CONDITIONS

Impacted Facilities			
	Yes	No	Description
Terminal	<input type="checkbox"/>	<input type="checkbox"/>	
Parking Structure	<input type="checkbox"/>	<input type="checkbox"/>	
Other Buildings	<input type="checkbox"/>	<input type="checkbox"/>	
Roads	<input type="checkbox"/>	<input type="checkbox"/>	
Airfield	<input type="checkbox"/>	<input type="checkbox"/>	
Other (Specify)	<input type="checkbox"/>	<input type="checkbox"/>	

Impacted Parties			
	Yes	No	Description
Airlines	<input type="checkbox"/>	<input type="checkbox"/>	
Concessions	<input type="checkbox"/>	<input type="checkbox"/>	
Passengers	<input type="checkbox"/>	<input type="checkbox"/>	
Other Contractors	<input type="checkbox"/>	<input type="checkbox"/>	
FAA	<input type="checkbox"/>	<input type="checkbox"/>	
LAWA	<input type="checkbox"/>	<input type="checkbox"/>	
TSA	<input type="checkbox"/>	<input type="checkbox"/>	
Others (Specify)	<input type="checkbox"/>	<input type="checkbox"/>	

Impacted Operations			
	Yes	No	Description
Traffic	<input type="checkbox"/>	<input type="checkbox"/>	
Pedestrian Flow - Stairs, Sidewalks	<input type="checkbox"/>	<input type="checkbox"/>	
Area Access	<input type="checkbox"/>	<input type="checkbox"/>	
Restrooms	<input type="checkbox"/>	<input type="checkbox"/>	



AREA SHUTDOWN REQUEST Impact Analysis Checklist - 2 of 2

Impacted Operations (Continued)			
	Yes	No	Description
Baggage Handling	<input type="checkbox"/>	<input type="checkbox"/>	
Gates	<input type="checkbox"/>	<input type="checkbox"/>	
Elevator	<input type="checkbox"/>	<input type="checkbox"/>	
Escalator	<input type="checkbox"/>	<input type="checkbox"/>	
Parking Lots and Structures	<input type="checkbox"/>	<input type="checkbox"/>	

Work Plan Requirement			
	Yes	No	Description
Security	<input type="checkbox"/>	<input type="checkbox"/>	
ACAMS	<input type="checkbox"/>	<input type="checkbox"/>	
Police	<input type="checkbox"/>	<input type="checkbox"/>	
Traffic Control	<input type="checkbox"/>	<input type="checkbox"/>	
Barricades	<input type="checkbox"/>	<input type="checkbox"/>	
Temporary Signage	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	hhhh

Comments:
hhhh

2.09 AOA Access Process

AOA / Post Access Process

The LAX Development Program is experiencing an unprecedented amount of construction over the next few years. This construction activity will put a high amount of stress on the AOA Access points for construction and will necessitate the need to coordinate and plan all future construction activities with regards to access to the AOA (Air Operations Area). AOA Access for all projects must be coordinated through the CALM (Coordination and Logistics Management) team.

Post Access Coordination (PAC) Meeting

All project teams must attend the Post Access Coordination (PAC) meeting held weekly in order to obtain access to the Airfield at LAX. All projects must submit a 30/60/90 day lookahead delivery schedule in conjunction with attendance at the PAC meeting. All contractors must provide daily deployments of major trucking activities that will impact the adjacent roadways. The meeting is held every Monday at 10:30am at Trailer 5 Conference Room at 8100 Westchester Parkway. For additional information, please contact Kwok Su, Secured Access Manager (CALM) at ksu@lawa.org or 424-646-7155.

Construction Posts

There are only 2 posts available for construction. See below for details.



- **Post 23** This post is open 24 hours a day – 7 days a week. Post 23 is located at 8100 Westchester Parkway, Los Angeles, CA 90045
 - Lanes 1-2 (Heavy Deliveries), Lanes 3-5 (All Other Vehicles)

- **Post 236B** The Post will only be open M-F from 5:00AM- 1:30PM and will remain closed Saturday/ Sunday. Post 236B is located at 5579 West 104th Street, Los Angeles, CA 90045.

Mitigation Monitoring and Report Program (MMRP)

- No major construction trucking activities during MMRP hours and must be off the roadway during the hours of 7:00am- 9:00am & 4:30pm- 6:30pm unless a waiver was approved by LAWA PM/CALM/ Environmental. Holidays and Weekends are exempt.
- Trucking should be on approved haul routes only.
- Vehicles are not allowed to idle more than 5 minutes.

Vehicle & Driver Requirements: Visit LAWA RAD Program

- Vehicle Requirements: Beacon, Flag, Permanent Company Logo on the sides of the vehicle
- Badging is required: must have Restricted Area Driver (RAD) Icon.
- Escorting: Escort must have Escort Icon.
- One Escort Vehicle per Vehicle being Escorted.
- Do not drive on the Restricted Access Road at any time.
- Equipment to be delivered on truck beds.
- Escorts cannot escort drivers with a badge.
- Vehicle drivers without badge will need to know escort's name and company before entering the AOA.

END OF PR-03 TRAFFIC COORDINATION, AIRFIELD ACCESS, AND SECURITY

PR-04 SCHEDULING OF THE WORK

1. GENERAL

- A. The DESIGN-BUILDER shall plan and schedule the project and report progress to LAWA. The scheduling of the project shall be provided using a combination of the critical path method to track the project at the milestone level the Last Planner® System. LAWA's acceptance of any schedule, whether preliminary, baseline, update or revised, does not modify the contract or constitute endorsement or validation by LAWA of the DESIGN-BUILDER's logic, activity durations or assumptions in creating the schedule. By accepting the schedule, LAWA does not guaranty that the project can be performed or completed as scheduled.
- B. Schedules shall represent a practical plan to design, procure, construct and complete the work within the work completion time and shall convey the DESIGN-BUILDER's intent in the manner of prosecution and progress of the Work. Milestone schedules shall represent hard dates for major project milestones that will guide the DESIGN-BUILDER's Last Planner® teams in their phase planning and weekly work planning sessions. LAWA understands that the phase plans and weekly work plans are fluid and change weekly to most efficiently execute the project and will work collaboratively with the DESIGN-BUILDER to complete the Project as scheduled.
- C. Schedules shall be created using scheduling software appropriate for the work, subject to acceptance or approval by LAWA as described herein. The submittal of schedules shall be understood to be the DESIGN-BUILDER's representation that the schedule meets the requirements of the contract documents and that the work will be executed in the sequence and duration indicated in the schedule.

2. REQUIREMENTS

- A. General Schedule Requirements
 - 1. The DESIGN-BUILDER shall be responsible for planning the design and construction of the project and must consider the work to be performed, the contract time, the resources available, vendors, subcontractors, external constraints and all other factors affecting the successful completion of the work. The DESIGN-BUILDER shall plan and schedule the project and report progress.
 - 2. Schedules shall be consistent with the time and work requirements of the contract. DESIGN-BUILDER shall execute the work in the sequence indicated on the current approved schedule and shall provide appropriate updates to the Make-Ready Plan to permit LAWA and other stakeholders to coordinate and schedule its resources, inspections, consultants, and any other work accordingly. LAWA may in its discretion require that the schedule plan design and construction activities over the entire work completion time. The DESIGN-BUILDER shall have no claims if LAWA disallows the DESIGN-BUILDER from finishing early.
 - 3. The DESIGN-BUILDER shall involve and coordinate with all designers, trade contractors, third parties, stakeholders and material suppliers in the development and updating of schedules, phase plans and weekly work plans.
 - 4. Review, acceptance or approval of schedules by LAWA shall not waive any contract requirements and shall not relieve the DESIGN-BUILDER of any obligation or responsibility for submitting complete and accurate information.
 - 5. If after a schedule has been accepted or approved by LAWA, either the DESIGN-BUILDER or LAWA discovers that any aspect of the schedule has an error or omission,

DESIGN-BUILDER shall correct it on the next progress schedule.

6. Errors or omissions on schedules shall not relieve the DESIGN-BUILDER from finishing all work within the work completion time.
7. The DESIGN-BUILDER shall adjust, add to, or clarify any portion of a schedule which LAWA determines to be insufficient for monitoring the work or to be impractical for any reason.
8. Use of float suppression techniques such as preferential sequencing or logic, special lead/lag logic constraints and extended activity durations will be cause for rejection of schedule submittal.
9. The scheduling method to be used for the project schedule shall be the Critical Path Method (CPM) in the form of an activity on node Precedence Diagram Network (PDN) with capabilities of identifying the longest path/critical path and controlling operation. The principles and definitions of the terms used herein shall be as set forth in the Associated General Contractors of America (AGC) publication "Construction Planning and Scheduling," latest edition. To the extent there are any conflicts between the AGC publication and the contract documents, the contract documents shall govern.
10. The schedule shall include activities, regardless of responsibility, that directly or indirectly relate to or have influence over planning and executing the scope of work in strict accordance with the contract documents, and shall include but not be limited to all design and preconstruction activities, procurement, allowances defined in PR-05, the DESIGN-BUILDER's submittals and their forecast approval dates, fabrication, shipment and deliveries of material and equipment (by the DESIGN-BUILDER and by others), and all on-site activities including construction, safety activities, phasing activities, quality control/quality assurance inspections, commissioning and as-built models and drawings.
11. The DESIGN-BUILDER shall use the agreed-upon version of Primavera Project Management (P6 or later) for Windows, and a hardware system commensurate with the size of the project. This shall be referred to as the scheduling system. The system shall be capable of handling, processing, printing, and plotting data to satisfy all requirements of these contract documents. The DESIGN-BUILDER shall maintain the scheduling system, the schedule, and the scheduling staff on Site. The DESIGN-BUILDER shall keep the scheduling software maintenance agreement current for the project scheduling software over the life of the contract. All schedules submitted by the DESIGN-BUILDER or its subcontractors or suppliers of any tier shall be in ".xer" format.
12. The DESIGN-BUILDER may utilize an electronic tool, such as vPlanner, in conjunction with LPS, however this does not relieve the DESIGN-BUILDER from performing regular phase planning, weekly work planning and daily check-ins in person with the last planners.
13. It is expressly understood and agreed that the time of the beginning, the rate of progress, the interim contract milestones, and the time of the completion of the work are of the essence to this contract. The work shall be executed with such progress as required to prevent any delay to collateral work on the project site and the general completion of the contract.
 - a. The DESIGN-BUILDER has a contractual duty to take reasonable remedial action in the schedule, in the most economical manner, to mitigate any and all delays to any milestone or the completion date.
 - b. In all cases, when it is possible for the DESIGN-BUILDER to eliminate the time impact of a delay without added cost to itself, the DESIGN-BUILDER shall do so and shall not

be entitled for a time extension under such circumstances.

- c. The schedule shall be prepared to include the completion date for the total contract time and the longest path/critical path shall be identified, including critical paths for interim milestone dates. Scheduled start or completion dates for activities imposed on the schedule by the DESIGN-BUILDER shall be consistent with the contract milestone dates. Milestone events shall be the schedule dates specified in the contract and shall be prominently identified and connected to the appropriate element of the work, denoting its start or completion.
14. LAWA will review and return the DESIGN-BUILDER's schedule submittal and deliverables with a written response according to the following timeframes from the date of receipt from the DESIGN-BUILDER:
- a. Baseline schedule within fifteen (15) days or more as may be needed depending on the complexity of the submittal;
 - b. Monthly schedule update within fifteen (15) days or more as may be needed depending on the complexity of the submittal.
15. If the DESIGN-BUILDER does not agree with LAWA's comments, the DESIGN-BUILDER shall provide an itemized written notice of disagreement within five (5) days from the receipt of LAWA's comments. Resolution of any of LAWA's comments with which the DESIGN-BUILDER disagrees will occur in a meeting held for that purpose.

B. DESIGN-BUILDER's Project Scheduler

1. The project scheduler is required to attend all meetings pertaining to scheduling and progress of the work, including weekly progress meetings and weekly work plan meetings. The project scheduler shall be available full time and be available for any schedule related meeting at the request of LAWA. Failure to be available full time will constitute reason for termination of the project scheduler. If the project scheduler leaves the employ of the DESIGN-BUILDER, the DESIGN-BUILDER is required to fulfill the requirements of this subsection within thirty (30) days of the departure of the DESIGN-BUILDER's project scheduler.
2. The project scheduler is required to be completely familiar with the contract and have first-hand knowledge of the work from on-site periodic job walks and shall attend all meetings pertaining to scheduling and progress of work, including weekly jobsite meeting as requested by LAWA.
3. The project scheduler shall be required to fully understand the LPS and lead efforts to implement integrate LPS with the CPM requirements outlined herein. The project scheduler shall attend and facilitate (as assigned), meetings regarding the workflow schedule, phase planning, make-ready planning and weekly work planning.
4. The number of schedulers required for timely completion of schedule deliverables will be determined by the DESIGN-BUILDER. Any additional schedulers needed shall be hired by the DESIGN-BUILDER to ensure all scheduled deliverables are submitted on time.

C. Schedule Requirements – Phase 1 Design & Preconstruction

- a. Task Order Processing
 - a. Separate Task Orders will be awarded for each design process, including Basis of Design (BoD), Schematic Design (SD-30%), Design Development (DD-60%) and

Final to Issue for Construction Design (90%, 100%, IFC). LAWA and the DESIGN-BUILDER shall work collaboratively on Preliminary Schedule submittals for each Task Order to create an acceptable Baseline Schedule for each Task Order. LAWA and the DESIGN-BUILDER shall ensure the necessary resources and stakeholders are present to facilitate the work.

- b. Upon NTP for each Task Order, the detailed Preliminary Schedule for activities pertaining to each Task Order shall undergo Baseline Schedule approval, while Level 3 activities for future Task Orders and Construction shall remain preliminary. LAWA will use Preliminary Schedules for each Phase 1 Task Order to monitor progress until the Baseline Schedule for each Task Order is accepted.
- b. Preliminary & Baseline Schedule Submittals, Reviews & Revisions
- a. The DESIGN-BUILDER shall provide a draft Preliminary Schedule within fifteen (15) days of the NTP of the first Task Order (BoD) for LAWA's review and approval. This initial Preliminary Schedule submittal shall include all work activities for the first 180 days of the project. At least ten (10) days after the project kickoff meeting, the DESIGN-BUILDER shall schedule a workshop designed to work collaboratively with LAWA to develop the Preliminary Schedule for BoD.
 - b. The BoD Task Order Preliminary Schedule shall be completed within fifteen (15) days of the project kickoff meeting. Subsequent Phase 1 Task Order Preliminary Schedules shall be completed within fifteen (15) days of NTP for each Task Order.
 - c. If a preliminary schedule is deemed to be unacceptable by LAWA, the DESIGN-BUILDER shall address the reasons for LAWA's determination and resubmit the revised Preliminary Schedule no more than five (5) days after LAWA's determination. LAWA may withhold progress payments until the DESIGN-BUILDER submits the Preliminary Schedule.
 - d. The DESIGN-BUILDER shall provide monthly updated Preliminary Schedules until Baseline Schedules are approved by LAWA. The activities on the Preliminary Schedule shall correlate directly with the Schedule of Values (SOV), from which Progress payments will be based until the Baseline Schedule is approved.

D. Schedule Requirements – Phase 2 Construction

- a. Construction Procurement
 - a. Construction will be procured through various procurement packages (cGMP1, cGMP2, cGMP3) to expedite early and critical scopes of work. LAWA and the DESIGN-BUILDER shall work collaboratively on Preliminary Schedule submittals for each procurement package to create an acceptable Baseline Schedule for each package. LAWA and the DESIGN-BUILDER shall ensure the necessary resources and stakeholders are present to facilitate the work.
 - b. Upon NTP for each procurement package, the detailed Preliminary Schedule for activities pertaining to each procurement package shall undergo Baseline Schedule approval, while Level 3 activities for future procurement packages shall remain preliminary. LAWA will use Preliminary Schedules for each procurement package to monitor progress until the Baseline Schedule for each Task Order is accepted.
- b. Preliminary & Baseline Schedule Submittals, Reviews & Revisions
 - a. Within sixty (60) days of the NTP of each procurement package, the DESIGN-BUILDER shall submit for LAWA's approval the DESIGN-BUILDER's Contract

- compliant project schedule.
- b. The Contract compliant schedule shall include detailed activities as a Baseline Schedule for approved procurement packages plus preliminary Level 3 activities for future procurement packages.
 - c. The DESIGN-BUILDER shall provide monthly updated Preliminary Schedules until Baseline Schedules are approved by LAWA. The activities on the Preliminary Schedule shall correlate directly with the Schedule of Values (SOV), from which Progress payments will be based until the Baseline Schedule is approved. Both Preliminary and Baseline Schedules will be compared with future monthly update schedules.
 - d. The DESIGN-BUILDER shall work collaboratively with LAWA, stakeholders, AHJ, other contractors, suppliers, subcontractors, ~~labor unions~~ and others to develop the Phase 2 baseline schedule activities. The DESIGN-BUILDER shall work collaboratively with LAWA to establish appropriate milestones that best facilitate the implementation of the Last Planner® System.
 - e. The DESIGN-BUILDER's baseline project schedule shall show all work and the sequence of all activities needed for the orderly performance and completion of all work. The schedule shall reflect the DESIGN-BUILDER's true plans for performing the work. The DESIGN-BUILDER's baseline project schedule shall strictly follow all staging and/or phasing requirements and plans as identified in the Contract or developed as part of the project plan. Any schedule showing a project or milestone completion beyond the contract milestones will not be approved.
 - f. Failure to provide a Contract compliant baseline project schedule within 60 days of NTP will result in the assessment of liquidated damages in the amount stated in special conditions.
 - g. Design-Builder must complete the pre-Olympic scope of work within 931 Calendar Days (Tentatively July 15, 2025 to Feb. 1, 2028) subject to Liquidated Damages stipulated in this Contract. An excusable and compensable Weather days will be granted only if adverse weather causes delay to critical path activity. Adverse weather delays occurring during period of delays due to the Design Builder or concurrent delays are excusable but not compensable.
 - h. Baseline Schedule Narrative
 1. The DESIGN-BUILDER shall provide a written narrative accompanying the electronic version of the DESIGN-BUILDER's baseline project schedule submission. It shall also include a clear description of the longest path/critical path activities from beginning to end and describe anticipated crew sizes, production rates, equipment requirements and anticipated problems of major activities along the critical path. The development of the schedule narrative should be a collaborative discussion with the entire project team including LAWA and stakeholders.
 2. The narrative shall explain the overall plan to complete the project, including how the DESIGN-BUILDER plans to physically move through the project site and intends to manage batch size in certain areas to help optimize trade efficiency as well as where the work will begin and how the work and labor will move through the project. The narrative should clearly describe how simultaneous activities will be performed.
 3. In the written narrative, the DESIGN-BUILDER shall include the basis and assumptions (including activity duration basis), longest path/critical path analysis, historic project comparisons, productivity and installation rates, used to develop the project schedule. The DESIGN-BUILDER shall include management staffing, non-manual and manual labor for design, engineering,

preconstruction activities and construction, construction crew sizes, equipment requirements, and anticipated delivery dates; constraints; critical path activities; activities requiring overtime or additional shifts; holidays and other non-work calendar days; potential problem areas; permits; coordination required with LAWA and third party agencies; and long lead delivery items requiring more than thirty (30) days from order to delivery.

4. A report of activities, showing the early and late start and finishes, duration, and predecessor and successor relationship, sorted by early start. Show dependencies and logic between activities so that the effect of progress (or lack of progress) on related activities and the overall schedule can be monitored.
 5. Non-manual labor staffing plan by department/position showing start and finish date (month and year) and number of each position per month. Include histograms showing staffing (incremental by month and cumulative) over the life of the contract in terms of both headcount and job hours.
 6. Manual labor staffing plan by craft (including Subcontractors) showing start and finish dates (month and year) and number of crafts per month. Include histograms showing staffing (incremental by month and cumulative) over the life of the contract in terms of both headcount and job hours.
- i. The DESIGN-BUILDER shall develop the baseline schedule to the appropriate milestone and interim milestone level of detail to allow for satisfactory weekly work planning and execution in conjunction with the Last Planner® System. Failure to develop the baseline schedule to an appropriate level of detail will result in its disapproval.
 - j. Activity durations shall be the total number of days required to perform that activity. The overall activity duration will be determined by the type of calendar applied to the activity. The activities included in the DESIGN-BUILDER's baseline project schedule shall be analyzed in detail to determine activity time durations in units of calendar days. Durations shall be based on anticipated production rates for design and preconstruction activities, labor (crafts), equipment and materials required to perform each activity on a normal workday basis.
 - k. The first activity in the baseline schedule shall represent the NTP as a milestone and the data date of the baseline schedule shall be the contract "Notice to Proceed" date.
 - l. Include at least one (1) predecessor and one (1) successor for each activity excluding the project start and finish milestones.
 - m. Define one calendar to include the following twelve (12) holidays: New Year's Day, Martin Luther King Day, President's Day, César Chávez Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, Day after Thanksgiving Day and Christmas Day. No activity impacting airport operations shall be performed on these days without written approval by LAWA.
 - n. The baseline schedule shall not contain negative total float or negative lag for any activity.
 - o. The critical path and number of critical activities shall be no more than thirty percent (30%) of the total activities in the DESIGN-BUILDER's baseline project schedule.
 - p. The project's critical path, for the purpose of acceptance of all schedule submittals shall be determined by the longest path analysis.
 - q. All durations shall be the result of definitive labor and resource planning by the DESIGN-BUILDER to perform the work according to the contract documents. The labor to be assigned by discipline, craft, definition, equipment, and bid item designation shall be shown for each construction activity for the network on a tabular listing. All disciplines or crafts necessary to execute an activity must be shown. No more than one (1) subcontractor may be assigned to a specific activity. If more

- disciplines or crafts are required, then the activity in question must be broken down into additional activities.
- r. Retained logic shall be the method of calculation and the "Retained Logic" setting shall be used.
 - s. All activity names shall be clearly and uniquely named with a description of work readily identifiable to inspection staff. Each Activity shall have a narrative description consisting at a minimum of one verb or work function (i.e. Submit, form, place, excavate, review, approve, cure, etc.), an object (i.e. Design calculations, slab, footing, wall, shop drawing, submittal, girder, etc.) and a location.
 - t. LAWA reserves the right to require that DESIGN-BUILDER modify, adjust, add to, or clarify any portion of the project baseline or progress schedule which may later be discovered to be insufficient or inaccurate for planning, monitoring or prosecuting the work (Schedule Adjustments). The first of each type of schedule or schedule report submitted by the DESIGN-BUILDER will be reviewed for format, as well as content. Once the format has been approved all subsequent project schedules shall be submitted in the approved format. LAWA may request format changes as the contract progresses. No additional compensation shall be provided for such modifications, adjustments, additions, or clarifications.
 - u. Lags shall be used at a minimum and shall not exceed ten (10) days in duration. A lag report will identify all lags used in the baseline schedule and a specific reason for its use will be provided for each. If it is determined that an activity or activities may take the place of the lag, LAWA reserves the right to request the activity be used in its place. Failure to do so may constitute grounds for rejection of the baseline.
 - v. The difference between the early completion date and the work completion Time is considered float. Float time shall not be for the exclusive benefit of either the Owner or the DESIGN-BUILDER. Float shall be a resource available to both parties.
 - w. Early Completion: The DESIGN-BUILDER may submit a baseline or progress schedule showing an early scheduled completion date provided that the requirements of the contract are met.
 - 1. LAWA is not required to accept or approve a schedule with an early completion date.
 - 2. DESIGN-BUILDER shall not be entitled to extra compensation in the event an agreement is reached on an early completion date and DESIGN-BUILDER completes the work, regardless of the reason, beyond the early completion date but within the work completion time.
 - x. A calendar report shall be included with the baseline schedule submittal. All calendars whether workday, seven day, six-day, etc. shall have a basis of and eight (8) hour shift unless otherwise needed. Any calendar using more than eight (8) hour shift shall be called out in the calendar report and a narrative explanation provided. The global calendar shall be seven (7) day / twenty-four (24) hour without any holidays or non-work days.
 - y. The detailed breakdown of project schedule activities may include:
 - a. Type of Work to be performed, the sequences, and the labor trades involved and LAWA approved WBS.
 - b. All purchase, submittal, submittal review and necessary re-review, manufacturing, test, installation activities for all major materials and equipment, and a separate list of all major material items or items of equipment for which the DESIGN-BUILDER intends to seek payment prior to installation.
 - c. Preparation, submittal, and approval of shop and/or working drawings, and material samples showing the minimum timeframes for LAWA's review of all

- submittals, or longer as identified in the contract.
- d. Resource loading for cost, labor, material, and equipment, including craft labor hours that add up to the total number of labor hours in the DESIGN-BUILDER's estimate and quantities of materials that reconcile with the "Contract Pricing."
 - e. All start up, testing, training, commissioning and assistance required under the Contract. (e.g. Punch list and final clean up).
 - f. Identification of any labor, material, or equipment restrictions, as well as any activity requiring unusual shift Work.
 - g. No activity shall have a duration of more than fourteen (14) calendar days except non-construction activities such as submittals, submittal reviews, procurement and delivery of materials or equipment, and concrete curing without approval from LAWA.
 - h. All construction activities shall be shown in their resource-loaded state to reflect labor, materials and equipment. All durations shall be the result of definitive labor and resource planning by the DESIGN-BUILDER to perform the work according to the contract documents.
 - i. Cost-Loading: The schedule is the basis for determining payment during each update period and therefore the amount of each application for payment. No activity should have a value over \$100,000, and the aggregate in-place value of all cost-loaded activities must equal the value of the application for payment. The total cost-loading for all activities for a given lump sum item shall equal the total amount listed in the GMP/CGMP or portion thereof. Cost loading must be reasonable and without front-end loading. The DESIGN-BUILDER shall demonstrate reasonableness if requested by LAWA.
 - j. All construction activities shall be loaded with all resources and costs required for the prosecution of the activity. These resources shall include labor, materials and equipment with their associated costs. All costs shall be entered as a resource.
 - k. Manpower availability shall not be allowed to drive the critical path at the sole discretion of the DESIGN-BUILDER. Manpower limitations must be verifiable in writing by the union's business agent before such resource-driven logic is incorporated into the DESIGN-BUILDER's baseline project schedule.
 - l. All major equipment valued over \$100,000 in capital cost to be used shall be identified in the DESIGN-BUILDER's baseline project schedule either as a resource or as a 'Level of Effort' (LOE) activity.
 - m. Pursuant to the float-sharing requirements of the contract, use of float suppression techniques such as preferential sequencing, special lead/lag logic constraints, extended activity times or imposed dates (mandatory Constraints) break the CPM rules and shall be cause for rejection of the DESIGN-BUILDER's Baseline project schedule and any revisions or updates. The use of "Start On or after" or "Start On or before" and "Finish On or after" or "Finish On or before" will be allowed. The use of float time disclosed or implied by the use of alternative float suppression techniques shall be shared as directed by LAWA.
 - n. DESIGN-BUILDER shall use base calendars which are appropriate with the work being performed. These should be tied into the requirements, restrictions and moratoriums of airport operations. Multiple calendars are acceptable for the schedule.
 - o. The timeframe for third party (e.g. Building and Safety, DWP, FAA, BOE and TSA) submittal review should be identified in the DESIGN-BUILDER's baseline project schedule. Third party reviews may require additional time and coordination beyond the standard review period allowed for LAWA review. If

necessary, additional time will be given to Building and Safety, DWP, FAA and TSA. The DESIGN-BUILDER shall allow sixty (60) days for review by these parties and any party which is not under the control of LAWA. The DESIGN-BUILDER shall be responsible for coordinating with third parties and determining the time required for third party submittal reviews.

- p. Submit with the baseline schedule, a statement on subcontractor's letterhead, certifying that subcontractor has reviewed and concurs with the baseline schedule and that subcontractor's related schedule has been reasonably incorporated, including activity duration.

E. Schedule Activity Codes

1. LAWA has implemented an airport-wide Activity Code Structure. The DESIGN-BUILDER is required to use this structure, which defines codes that uniquely categorize and identify each activity in a project schedule, and group activities in similar categories. The DESIGN-BUILDER shall integrate the activity code structure with LPS to the extent practicable. Within the activity code dictionary, the DESIGN-BUILDER shall classify all activities to a specific airport facility and element.

- a. The first code field shall designate the Airport Facility;

Value	Description	Order
01	Los Angeles International	1
03	Van Nuys	3
04	Palmdale Regional Airport	4

- b. The second code field shall designate the Element in the Airport Facility;

Value	Description	Order
01	Airside	1
02	Terminals	2
03	Landside	3
04	Midfield Satellite Concourse	4
05	LAMP	5

LAWA has defined the following code structure for airside projects. Examples are shown for reference only, as specific code values will vary by project. Coding structure and values will be addressed at the pre-scheduling conference. Final values and descriptions are subject to acceptance by LAWA, prior to their use in any schedule.

- c. The third code field shall identify the specific project;

Examples;

Value	Description
24LRSA	Runway 6R-24L RSA
25LREH	Runway 7R-25L Rehabilitation

- d. The forth code field shall identify the Deliverable;

Examples;

Value	Description
CM	Contract Milestones
SUB	Submittal
PRO	Procurement

- e. The fifth code field shall identify the construction phase (as per the phasing of work

identified in the contract documents). There shall be one (1) "PH" code for every phase and sub-phase.

- f. The sixth code field shall identify specific work class at the airport facility (the following are shown for reference only. The DESIGN-BUILDER shall provide final classifications after examination of contract documents. The values and descriptions are subject to final acceptance of LAWA;

Examples;

Value	Descriptions
AGR_	At-Grade Roadways
RAMP	Ramps to/from Bridges
EB	Elevated Bridges
PB_	Ped Bridges

- g. The seventh code field shall identify whose responsibility it is to perform the activity (e.g., LAWA, utility company, Design-Builder, subcontractor, etc.);
- h. The eighth code field shall identify all change orders and notices of non-compliance (CONNC) activities, as they occur throughout construction;
- i. The ninth code field shall identify all changes (activity additions and deletions) as they occur throughout construction;

Value	Description
ADD	Activity Additions
DEL	Activity Deletions

- j. The DESIGN-BUILDER shall reserve code fields' 10, 11 and 12 (approximately 8 to 16 characters) for LAWA's use.
- k. The DESIGN-BUILDER may use more codes as they deem necessary subject to the final acceptance by LAWA.

F. Baseline Schedule Submittal Review

- a. LAWA's approval of the DESIGN-BUILDER's baseline project schedule
- a. The DESIGN-BUILDER shall schedule a meeting to review the DESIGN-BUILDER's baseline schedule submittal no later than the first available day after LAWA's receipt of the baseline submittal. This meeting will serve as the DESIGN-BUILDER's meeting to review, explain and discuss the DESIGN-BUILDER's baseline schedule with LAWA. LAWA reserves the right to invite any LAWA staff deemed necessary for this meeting. Additional meetings may be held between LAWA, the DESIGN-BUILDER, stakeholders, project scheduler and all major subcontractors and suppliers to resolve any conflicts between the DESIGN-BUILDER's baseline project schedule and the intent of the contract.
- b. LAWA will review and make comments on the DESIGN-BUILDER's baseline project schedule. Comments made by LAWA on the DESIGN-BUILDER's baseline project schedule, during review, will not relieve the DESIGN-BUILDER from compliance with requirements of the contract documents. To the extent that there are any conflicts between the approved schedule and the requirements of the contract documents, the contract documents shall govern.
- c. The DESIGN-BUILDER, the DESIGN-BUILDER's project scheduler, and available major subcontractors and suppliers shall be required to participate in all meetings necessary to reach mutual agreement and approval of the DESIGN-BUILDER's

baseline project schedule.

- d. LAWA will approve or reject in writing the DESIGN-BUILDER's submission within ten (10) days. The DESIGN-BUILDER shall resubmit its revised baseline project schedule, if needed, within seven (7) days from receipt of LAWA's comments. The DESIGN-BUILDER's baseline project schedule, once approved, will be used for monitoring and evaluating all facets of contract performance, including but not limited to progress, changes, and delays.
- e. Upon successfully developing the DESIGN-BUILDER's baseline project schedule, the schedule will be accepted by LAWA. "Acceptance" means that LAWA is only acknowledging that the schedule conforms to the overall requirements of the scheduling specification. However, acceptance by LAWA does not relieve the DESIGN-BUILDER from correcting errors and omissions, float sequestering logic/duration or any other misrepresentation that may be included in the approved schedule.

G. Last Planner® System of Production Control (LPS)

- 1. The DESIGN-BUILDER shall use the LPS of production control for scheduling and planning the work activities of the project. All subcontractors, subconsultants, trade contractors and significant vendors shall fully participate in LPS to the extent required as facilitated by the DESIGN-BUILDER.
- 2. The DESIGN-BUILDER and LAWA shall work collaboratively to determine the appropriate integration of LPS with the CPM scheduling requirements herein.
- 3. The DESIGN-BUILDER shall validate the baseline schedule activities with a milestone schedule developed collaboratively with LAWA and the project stakeholders. The milestone schedule shall be developed by the project team and stakeholders and shall reflect the owner project requirements. Identified major milestones shall be broken down into manageable time frames. The work breakdown structure for the schedule should reflect this.
- 4. From the milestone schedule the DESIGN-BUILDER shall prepare a breakdown of the milestones into phases, which will be used to collaboratively plan the work activities with DESIGN-BUILDER's team.
- 5. The DESIGN-BUILDER shall collaborate with LAWA to identify all the tasks required to be completed to enable a milestone to be met. For each phase, the DESIGN-BUILDER shall facilitate a highly collaborative system of planning the work in the identified phases with the project team members that manage the day-to-day assignment of work for the phase. Project team members will include LAWA and all appropriate stakeholders.
- 6. The production plan for each phase will be created using the "pull" technique, starting with the milestone to be achieved and work toward the start of a particular phase, look-ahead plan or weekly work plan. The project team will work together to optimize the opportunity to design the production system or align the design of the production system with the BIM model.
- 7. As phase plans are developed, the DESIGN-BUILDER shall use the plans to build or validate the project schedule and transfer the plans to the project schedule as needed. This should be performed as soon as possible to ensure milestones dates are maintained and the schedule is current for monthly reporting.

H. Six Week Look Ahead Plan

1. The DESIGN-BUILDER will develop a six week look-ahead plan (or weekly work plan as referenced in the Last Planner® System) that identifies completed work items necessary so that assignments can be made and work can be completed as planned for each task and is to be submitted by the DESIGN-BUILDER on a weekly basis, prior to the weekly progress meeting. Each weekly work plan shall be derived from the corresponding phase plan.
 - a. The six-week look-ahead plan shall reflect the progress achieved in the previous week and forecast six weeks of planned progress. DESIGN-BUILDER must include in the six-week look-ahead at a minimum thirty (30) days' notice for upcoming ASR and Utility Shutdown Request (USR). DESIGN-BUILDER must also factor the LIR approval process as applicable.
 - b. The six week look-ahead plan activities shall be generated from the latest accepted current schedule update using Primavera Project Management. DESIGN-BUILDER shall use a spreadsheet format to further detail the look-ahead plan. The project superintendent may add additional activities not included in the latest accepted current CPM schedule update, using the given CPM Activity ID with additional descriptors and detail to improve planning and coordination of engineering and construction. All activities, in the look-ahead shall relate back to the current project CPM by Activity ID(s) even in the case where it may be for information only. Any additional detailed activities will have their activity ID's become an extension of the parent activity. As an example; an activity for Form/Reinforce/Place concrete may have the activity ID of FRP1400. This activity would then become FRP1400.10 Form Concrete and FRP1400.20 Reinforce Concrete and finally FRP1400.30 Place Concrete. Location characteristics would be applied for clarity and unique verification of the work to be performed. Necking of the activity bars will be used to clearly depict work days and non-workdays. The detail of this application and format is to be discussed with LAWA at the project kickoff scheduling meeting.
 - c. The inclusion of projected work for each day of the planned work and total float is required in the six week look-ahead plan for all forecasted and completed activities would be actualized with start and completion dates. Each activity should reflect the Activity ID, activity description and total float from the current accepted project schedule and planned/actual start and finish dates for every activity. Any change the current accepted schedule dates will be reported during the weekly coordination meeting.
 - d. The six week look-ahead shall include a safety risk assessment which identifies any potential hazards and include the activities necessary to ensure a hazard-free work environment.
 - e. The six week look-ahead shall be updated weekly by the DESIGN-BUILDER utilizing information from field supervisors and shall be used to validate the phase plans.
 - f. Creation of a six week look-ahead plan is mandatory for discussion during the weekly progress meetings. The DESIGN-BUILDER shall be prepared to discuss any changes to the completion dates as related to the phase plans, milestones and current (CPM) schedule. Discussion of activity delays and mitigation of any delays to project completion milestones will be mandatory. Six week look-ahead plans generated during a given month shall be used for updating the monthly (CPM) schedule update every month.
 - g. The six week look-ahead plans shall be transmitted to LAWA at least twenty-four

(24) hours in advance of the weekly progress meeting in PDF format.

I. Percent Plan Complete

1. The DESIGN-BUILDER shall maintain a log that tracks the percent complete of the planned activities. The DESIGN-BUILDER shall identify the root cause and re-plan the upcoming tasks to maintain the milestones dates.
2. The DESIGN-BUILDER shall share the percent plan complete log with LAWA as requested.
3. The DESIGN-BUILDER shall utilize the percent plan complete log and associated root cause analyses as a basis to enable a culture of continuous improvement throughout the design-build team.

J. Monthly Schedule Updates

1. Monthly Schedule Update Review

- a. No later than the 25th of each month, the DESIGN-BUILDER and LAWA shall meet to agree on the progress of the work performed and the DESIGN-BUILDER shall update the schedule accordingly. The DESIGN-BUILDER shall incorporate and submit the approved progress percent complete into the schedule. Upon review and verification of the progress percent completed, the DESIGN-BUILDER shall submit their monthly invoice with the updated schedule. Liquidated Damages, in the amount of \$1,000. Will be assessed for each day that the updated schedule is late.
- b. The processing time frame for the monthly schedule update will be fifteen (15) days or more as may be needed depending on the complexity of the submittal.

2. Monthly Schedule Update Submittals

- a. The DESIGN-BUILDER shall submit the monthly schedule update on or before the first (1st) day of each month. Following the DESIGN-BUILDER's submittal of the monthly schedule update, the DESIGN-BUILDER and LAWA will meet to discuss the monthly schedule update and reports. The DESIGN-BUILDER's monthly schedule update will consist of an editable electronic P6 file (.xer) Schedule file transmitted via Prolog, a written narrative and various schedule reports as listed below.
- b. Along with P6 schedule and reports, the DESIGN-BUILDER shall also submit electronic MS Excel copy of pay request for further validation of approved percentages and values.
- c. Late submittal of the monthly schedule update shall be subject to liquidated damages until such time that the DESIGN-BUILDER submits a contract compliant monthly schedule update.
- d. LAWA may call for more frequent contract schedule meetings at no additional cost to LAWA. If the DESIGN-BUILDER decides to work more than one shift, LAWA may require semi-monthly schedule updates to verify the DESIGN-BUILDER's progress at no additional cost to LAWA. Certain meetings may be required at the change of shifts in the instances that work is being performed during the

commissioning process.

- e. Out-of-sequence progress shall be addressed as a change in the DESIGN-BUILDER's planned schedule and shall be corrected to be as-built for each change as it occurs within the reported progress period. Out-of-sequence progress will be deemed to be at the discretion of the DESIGN-BUILDER unless directed in writing by the LAWA. The updating of logic for out-of-sequence progress to show the as-built logic is required. Any and all changes made to logic shall be detailed in the update narrative.
- f. The DESIGN-BUILDER's monthly schedule update narrative report shall contain all of the following elements in a format and layout which is clear, easy to read and consistent from month to month. The DESIGN-BUILDER's narrative shall include, but is not limited to the following:
 1. DESIGN-BUILDER's transmittal letter
 2. Description of problem areas
 3. Current and anticipated delays
 - a. Cause of the delay
 - b. Corrective action and schedule adjustments to correct the delay
 - c. Impact of the delay on other activities, milestones, and completion dates
 - d. A detailed listing and explanation of any and all schedule changes or revisions made since the last schedule submittal organized by work area or work grouping, to include:
 - i. Identification of logic changes
 - ii. Activity duration changes
 - iii. Activity additions or deletions
 - iv. Added or deleted constraints
 - v. Change in status reflecting progress decrease from previous schedule submittal
 - vi. All changes will be accompanied by a narrative of the reason for the change
 - vii. All corrected items requested by LAWA, itemized and explained in the next update narrative
 - e. Pending items and status thereof
 - viii. Permits
 - ix. Change orders
 - x. Time extensions
 - xi. Non-compliance notices

- xii. Status of any pending recovery schedules
- 4. Description of the work planned and the work completed in the last period and a comparison in the form of percent plan complete charts (format to be approved) for each Last Planner® team. Status report of the Phasing, Milestones and Contract Completion Date(s).
- 5. Other project or scheduling concerns including any unplanned shutdowns
- 6. The tabular reports shall include the following:
 - a. Actual start dates (actual start dates should be determined from DESIGN-BUILDER's daily field reports and confirmed with LAWA's daily report).
 - b. Actual completion dates (when an activity is deemed substantially complete by LAWA, then such activity will no longer be treated as an activity affecting the critical path or successor activities on the project).
 - c. Description of the critical path and near critical paths, including for each:
 - i. Critical path report sorted by early finish and with float values.
 - ii. Critical path Gantt chart report organized by phases, levels and other applicable activity codes with tabular information on the left containing activity ID, activity name, original duration, remaining duration, percentage complete, early start, early finish, late start, late finish, total float and budgeted cost columns.
 - iii. A description of the critical activities to be performed in the next progress period.
 - d. The graphic reports shall include the following:
 - 1. Gantt chart report organized by phases, levels and other applicable activity codes with Tabular information on the left containing activity ID, activity name, original duration, remaining duration, percent complete, early start, early finish, late start, late finish, total float and budgeted cost columns. The entire project time-scale shall be visible unless otherwise approved by LAWA.
 - 2. Updated histogram depicting the total project craft workforce by discipline or trade and the DESIGN-BUILDER's craft workforce for its own forces and for each of its subcontractors for each month. The histogram shall be based upon and shall be in substantive agreement with the number of shifts and crew sizes by craft in the detailed project schedule.
 - e. These schedule reports and narratives will be reviewed in a meeting between the DESIGN-BUILDER and LAWA at the

monthly schedule review meeting to be held the first day available after receipt of the monthly schedule update.

- f. Required revisions of the monthly schedule update are due within five (5) days of notice by LAWA that a revision is required. All revisions and additions to the monthly schedule update are subject to the review of LAWA. When the proposed monthly updated construction schedule or its required revision is accepted by LAWA, it then becomes the current schedule.
- g. Provide two (2) copies of the schedule narrative report, the monthly update schedule, the master summary schedule and the Gantt chart report, the histogram.
- h. The DESIGN-BUILDER shall provide the layouts used in organizing, viewing and reporting the baseline. The layouts shall be provided electronically as an exported (.plf) file to be included with the electronic baseline schedule file submittal (.xer).
- i. If the DESIGN-BUILDER fails to submit any of the update deliverables, or to meet any of the other updating requirements, for a period of thirty (30) days or more beyond the required submittal date, progress payments will be withheld until such time as the DESIGN-BUILDER submits the required update requirements.
- j. The LAWA review and acceptance of schedules does not waive any contract requirements and does not relieve the DESIGN-BUILDER of any obligation or responsibility for submitting complete and accurate information. Whereas, errors and/or omissions on schedules do not relieve the DESIGN-BUILDER from finishing all work within the time limit specified for completion of the contract. If, after a schedule has been accepted by LAWA, either the DESIGN-BUILDER or LAWA discovers that any aspect of the schedule has an error or omission, the DESIGN-BUILDER must correct it on the next updated schedule.

K. Recovery Schedule

- 1. A Recovery Schedule is required along with the submission of a monthly Progress Schedule Update if the monthly Progress Schedule Update shows a delay of more than two (2) weeks to the Contract Milestones. The Recovery Schedule will be a separate submittal from the monthly Progress Schedule Update. The separate submittal may be waived by LAWA if it has been determined that the current schedule is acceptable and/or only minor changes in the current schedule are necessary.
- 2. As part of this submittal, the DESIGN-BUILDER shall provide a written narrative explaining each action and schedule revision made to recapture the lost time.
- 3. If the revisions include sequence changes, provide a "fragnet" schedule diagram comparing the original sequence to the revised sequence of work.
- 4. Once accepted, the recovery revisions and the recovery schedule file will become the

current schedule. Receipt of an acceptable recovery schedule within ten (10) days of written notice by LAWA is a condition precedent for monthly progress payment.

5. If the revisions are not accepted by LAWA, LAWA's comments will form the basis for resubmission of the recovery schedule.

L. Time Impact Analysis (TIA)

1. The DESIGN-BUILDER shall submit a detailed Time Impact Analysis (TIA) to support any request for time extensions. The principles, definitions and terms used herein for a TIA shall be as set forth in the AACE International Recommended Practice No. 52R-06 publication "Time Impact - As Applied In Construction," October 19, 2006. Basis for evaluation of any time extension shall be made with the use of the current schedule or the current schedule accepted prior to the time period in review. The current schedule is the latest LAWA accepted schedule and must contain all corrections requested by LAWA. A current schedule that was accepted as noted cannot be used unless all items noted have been addressed. The DESIGN-BUILDER shall provide justification for the time extension in a change request. This request shall include a narrative explaining the analysis. This TIA will be supported by fragnets created to demonstrate the effect of specific delays to the current schedule critical path as they occur. Each fragnet will consist of a sequence of the new activities and/or network revisions that are proposed to be added to the existing Schedule to illustrate the effect and method for incorporating actual delays as they are encountered.
2. While preparing the TIA, the DESIGN-BUILDER shall make the best of efforts to follow industry best practices.
3. The contemporaneous TIA will be based on the current accepted schedule prior to the proposed delay event. The schedule shall include time extensions approved, existing job conditions, the degree of physical progress achieved at the time a delay occurs, the specific facts of the delay issue, and the availability of labor, equipment and material.
4. Each TIA package shall contain the following:
 - a. Narrative that includes:
 1. Description of whether the delay is excusable or compensable;
 2. Description of the merit of the delay based on the contract documents;
 3. When the delay was first encountered;
 4. Why the delay cannot be easily mitigated without added cost to the DESIGN-BUILDER and what are the approximate costs to mitigate the delay;
 5. How the delay affects the critical path;
 6. How the DESIGN-BUILDER plans to construct/perform the additional work;
 7. How the DESIGN-BUILDER determined the durations for delay activities.
 - b. Plot of the critical path with the inserted delay fragnet.
 - c. A TIA will be required for each delay as it occurs. If more than one (1) delay occurs during the progress period in question, all delays shall be analyzed for that period in one submittal package. Do not separate TIAs that occur in the same period as the proposed impacts must be addressed for concurrency.

LAWA reserves the right to reject the TIA package in the event the DESIGN-BUILDER does not comply with this section.

- d. The Schedule can be accepted when one or more of the following occur:
 - 1. When a change order affects the contract completion date or sequence of items of the work;
 - 2. When the DESIGN-BUILDER requests and LAWA accepts a sequence or duration change of work items affecting the critical path/controlling operation;
 - 3. When LAWA directs a change that affects the milestone date(s) specified in the contract or alters the length of a critical path;
- e. If an agreement cannot be reached on changes to the contract schedule or the DESIGN-BUILDER has failed to submit revisions to the network, the DESIGN-BUILDER's request will be denied.

M. Time Extensions

- 1. If the DESIGN-BUILDER is granted an extension for the time of completion of any milestone or DESIGN-BUILDER completion date under the provisions of the contract, the determination of the total number of calendar days of time extension will be based upon LAWA's analysis of the schedule and upon all data relevant to the extension including the DESIGN-BUILDER's TIA and percent plan complete log and variance reports. Such data shall be incorporated in the next monthly update of the schedule.
- 2. The DESIGN-BUILDER acknowledges and agrees that delays in work items which, according to LAWA's schedule analysis, do not affect any milestone dates or the contract completion date shown on the schedule at the time of the delay, will not be the basis for a contract extension.
- 3. Float is not the property of the DESIGN-BUILDER and shall be shared with LAWA as an expiring resource available to all parties as needed to meet the contract completion date. In the event that the schedule is forecasting a late completion date, and the critical path is showing negative float, only those activities with the largest negative float will be considered critical (controlling) and constitute the critical path. Where two (2) or more concurrent activities each have negative float, the activity with less critical float will not be considered to be on the critical path.
- 4. The most current accepted schedule update will be the basis of evaluating concurrent delays on the critical path. A non-compensable time extension will only be granted when it is determined that concurrent delays have occurred on the critical path (the longest path). No time extension shall be granted for any concurrent delay that is not on the critical path in the current update.

N. As Built Schedule and Documentation

- 1. Prior to final release of retention, and after all contract work items are completed, the DESIGN-BUILDER shall submit an "as-built" contract schedule (Schedule Data Disks, Reports, and Plots) showing actual start and finish dates and actual logic used for all milestones, and actual expenditures of labor and costs.
- 2. The "As-Built Schedule" will be accompanied by a narrative report titled "Final Schedule Report" which provides an overview of the schedule and LPS process, provides the history of changes to the schedule and the resulting changes to milestone dates, discusses major schedule variances (including labor and cost variances), and

identifies any outstanding schedule issues.

3. DESIGN-BUILDER to transmit As-Built schedule package via Prolog.
4. The DESIGN-BUILDER shall support the "As-Built Schedule" and "Final Schedule Report" with a letter on the DESIGN-BUILDER letter head that confirms all information in the "As-Built Schedule" is truthful and accurate pertaining to start and finish dates, as-built logic, cost and resource loading and final schedule report. The accompanying letter shall be signed by an officer of the managing entity of the DESIGN-BUILDER.

O. Other Schedule Submittal Requirements

1. The DESIGN-BUILDER shall coordinate schedule submittals to avoid concurrent submittals to maximum extent possible. Where concurrent schedule submittals cannot be avoided, the DESIGN-BUILDER shall increase review time as required, to allow for LAWA's review.
2. Where submittal is concurrent with or overlaps submittals currently being reviewed, the DESIGN-BUILDER shall indicate priority of each outstanding submittal.
3. Following corrections resulting from LAWA's response to its initial submittal, the DESIGN-BUILDER shall print and distribute copies to LAWA, subcontractors, and other parties required to comply with submittal dates indicated.
4. The DESIGN-BUILDER shall post copies of the current milestone schedule in the project meeting room and temporary field office.
5. When revisions are made, the DESIGN-BUILDER shall distribute to the same parties. Parties shall be deleted from distribution when they have completed their assigned part of work and are no longer involved in construction activities.

END OF PR-04 SCHEDULING OF THE WORK

PR-05 ALLOWANCES

1. GENERAL

- A. Allowances have been set aside for certain services and/or materials that may be required by LAWA to complete the Project, but for which definitive scopes cannot be determined until a later time or where a specific LAWA-selected vendor or consultant may be required to perform specialized work. The stipulated Allowance amounts included in the Contract will be used, as authorized by LAWA, to pay for these certain services and/or materials as they become defined through discovery or design. LAWA reserves the right at its sole discretion to authorize, make changes or modifications to the scope of work described herein and to proceed with all or only some of them. DESIGN-BUILDER shall not assume use or access to any allowance.
- B. LAWA may request the DESIGN-BUILDER to prepare and submit Proposals (including a proposed scope, schedule, and budget) to provide additional services and/or materials, to be funded by these Allowances. If the Proposals are acceptable, in whole or in part, LAWA may issue Task Orders to DESIGN-BUILDER to provide those additional services and/or materials, to be paid out of these Allowances.
- C. LAWA may choose to use some of these Allowances to directly fund one or more third parties (i.e. other City Departments, other Contractors, Utility Companies, etc.). All allowances used to directly fund a third-party shall remain outside of the Contract Value, and the DESIGN-BUILDER shall not be entitled to any costs, fees, markups, or any other form of payment whatsoever for these Allowances.
- D. LAWA may choose to not use these Allowances, in whole or in part. All unused allowances shall remain outside of the Contract Value, and DESIGN-BUILDER shall not be entitled to any costs, fees, markups, or any other form of payment whatsoever for these unused allowances.
- E. The Allowance will also be used to reimburse the DESIGN-BUILDER for the actual cost of the scope of work as identified below.
 - 1. All price quotes are for the scopes of work requested by LAWA for each allowance item of work shall be provided to and approved by LAWA prior to the DESIGN-BUILDER proceeding with the work. The DESIGN-BUILDER shall provide price quotes within twenty-one (21) days of receipt of request by LAWA.
 - 2. Price quotes shall be provided in a format that clearly itemizes all design fees, labor quantities and labor rates, material quantities and material rates and equipment costs to perform the work of the allowance. Any work performed by subcontractors to the DESIGN-BUILDER shall also be itemized as above. Price quotes shall be obtained from LAWA-approved contractors and/or vendors by the DESIGN-BUILDER in a format that clearly itemizes all design fees, preconstruction services, labor quantities and labor rates, material quantities and material rates and equipment costs to perform the allowance scope of work. Any work performed by DESIGN-BUILDERS to LAWA selected contractor and/or vendor shall also be itemized as above.

3. LAWA will approve all allowance items of work by issuance of a task order prior to the DESIGN-BUILDER proceeding. The task order will clearly define the allowance item scope and agreed to amount. In the case where time is of the essence or the price quote provided by the DESIGN-BUILDER is unacceptable to LAWA; LAWA may direct the DESIGN-BUILDER to proceed with the allowance work by issuance of a task order on a Time and material basis, as prescribed in general condition, payment procedures.
4. If approved in writing by LAWA, stipulated amounts for an individual allowance line item may be utilized to fund an increase in the stipulated amount of different individual allowance line items.

2. ALLOWANCE - SCOPE

- A. Agency Permits: This allowance covers the costs for the DESIGN-BUILDER to procure all required permits, approvals, and licenses prior to the commencement of the related Work. The allowance covers the actual cost of the permits and plan check fees from regulatory agencies only.
 1. Under this Allowance item, the DESIGN-BUILDER shall be compensated only for the actual permit fees for procuring of all building and construction permits required by the City of Los Angeles and other agencies. All costs associated with any administrative work to fill out and/or to process said permits and copies will not be compensated for under this Allowance and shall be considered incidental. Payment under "Permit Allowance" item will be made only for the actual permit fee and invoice paid for by the DESIGN-BUILDER for work associated with this project. The DESIGN-BUILDER shall provide proof of payment for all permit fees.
- B. Differing Conditions: This allowance provides payment for changes in the various work area / phases or scope of work as directed by LAWA to mitigate differing field conditions. The scope of this work under this allowance includes, but is not limited to: additional demolition, mitigation of unforeseen utilities, relocation and construction of necessary infrastructure to mitigate miscellaneous unforeseen conditions as directed by LAWA. This allowances also includes additional potholing and site investigations that may be necessary and unless otherwise has not been identified in the DESIGN-BUILDER's contract documents and are not already included as part of the DESIGN-BUILDER's base scope of work and GMP/CGMP.
- C. Environmental and Hazardous Materials Mitigation: This allowance provides for payment for procurement of a qualified hazardous material subcontractor and/or contaminated soil remediation subcontractor for testing, removal and abatement as necessary and as directed by LAWA. This allowance may be utilized for testing and treating of potentially hazardous materials, contaminated soil and asbestos containing material that may be encountered during construction which have not been identified in the DESIGN-BUILDER contract documents and already included as part of the DESIGN-BUILDER's base scope of work. This allowance may also be utilized for procurement of specific LAWA selected vendors or consultants for testing and monitoring services.
- D. Additional Traffic Control Measures including Traffic Flagging: This allowance provides for payment to the DESIGN-BUILDER for additional LAWA directed traffic measures beyond those required by the approved traffic control plan or by the AHJs, and unless otherwise has not been identified in the DESIGN-BUILDER's contract documents and are not already

included as part of the DESIGN-BUILDER's base scope of work and GMP/CGMP. This allowance also includes additional sweeping found to be needed.

- E. Additional Signage: This allowance is for payment of additional new signs and/or modifications to existing signs, both permanent and interim in nature deemed necessary by LAWA, at its sole discretion, and unless otherwise has not been identified in the DESIGN-BUILDER contract documents and are not already included as part of the DESIGN-BUILDER's base scope of work and GMP/CGMP. These signs include but are not limited to signs needed for pedestrian and vehicular wayfinding, signs needed to support operational flexibility, communicate identity, status of airport conditions and directional information, regulatory information or any other information determined by LAWA to be necessary. Signage paid for from this allowance may include, but is not limited to static, dynamic, and digital sign types, such as large format overhead roadway signs, pedestrian wayfinding pylons, monument signs and any other sign types determined necessary and appropriate by LAWA. This allowance may be used for payment of sign support structures, structural supports, foundations, power and data infrastructure and any other miscellaneous work which may be required for the installation and operation of new and/or existing signs.
- F. Replacement of Unsuitable Paving Subgrade: This allowance provides for the excavation and replacement of sub-grade materials that may include soils not complying with the compaction and other soil tests specified by the AHJ during execution of the work and unless otherwise has not been identified in the DESIGN-BUILDER's contract documents and are not already included as part of the DESIGN-BUILDER's base scope of work and GMP/CGMP.
- G. Partnering:
 - a. This allowance provides for payment for the DESIGN-BUILDER to engage LAWA approved professional facilitator(s) to conduct training sessions related to project partnership and advanced management techniques such as Lean Construction methods. The cost of a professional facilitator and associated training sessions and subsequent workshops, excluding DESIGN-BUILDER staff labor charges and travel expenses, will be shared between the DESIGN-BUILDER and LAWA and paid from this allowance.
 - b. No DESIGN-BUILDER overhead and fee mark-ups shall be added to the cost. The DESIGN-BUILDER shall provide LAWA with an initial estimate of the cost of the training sessions, excluding DESIGN-BUILDER staff labor charges and travel expenses. Upon authorization from LAWA, Design /Builder will commence with the training and review session activities and will provide LAWA with receipts for all eligible allowance costs.
- H. Project Management Office (PMO): This allowance provides for payment of costs associated with the construction, furnishing, and maintenance of the Project Management Office (PMO) for the Design-Builders/LAWA/City Staff, Project Site Field Office, etc. unless otherwise has not been identified in the DESIGN-BUILDER's contract documents and are not already included as part of the DESIGN-BUILDER's base scope of work and GMP/CGMP.
- I. Laydown Area Rental: This allowance provides for payment of laydown area rental costs for the Project which have otherwise not been identified in the DESIGN-BUILDER's contract documents and are not already included as part of the DESIGN-BUILDER's base scope of work and GMP/CGMP.
- J. Enabling: This allowance provides payment for the DESIGN-BUILDER to complete enabling work necessary to procure long-lead items, utility-relocations, install temporary roadways, and/or other early / enabling work, etc. prior to developing a future GMP/CGMP Proposal.

- K. Insurance: This allowance provides payment for fixed premiums for Project insurance with coverage, limits, and deductibles as approved by LAWA.
- L. Schedule Allowance: The Schedule Allowance includes (30) days of contract time and associated General Conditions costs and may be utilized at the sole discretion of LAWA.
- M. Additional Relocation of Functional Operations: Work associated with this allowance includes additional relocation of LAWA and/or tenant operations, concessions, airlines, tenants and other functional operations as required by LAWA. This includes, but is not limited to planning, design, preconstruction and construction services related to the work.
- N. Cultural Monitoring: This allowance provides for payment for procurement of qualified Archeological and/or Paleontological monitors as required under the Archeological Treatment Plan (ATP) and the Paleontological Management Treatment Plan (PMTTP), and Tribal Monitor Contractor for monitoring of earthwork operations as required for excavations that are 5' below grade and 10' below for paved surface and as necessary and as directed by LAWA. This allowance may also be utilized for procurement of specific LAWA selected Cultural/Paleontological/Archeologist/Tribal Monitors or consultants for inspection, escort services, and monitoring services.

ALLOWANCE TABLE		
Item	Allowance Type	Amount
A	Agency Permits	\$200,000
B	Differing Conditions	\$6,000,000
C	Environmental and Hazardous Materials Mitigation	\$6,000,000
D	Additional Traffic Control Measures including Traffic Flagging	\$5,000,000
E	Additional Signage	\$500,000
F	Replacement of Unsuitable Paving Subgrade	\$500,000
G	Partnering	\$250,000
H	Project Management Office (PMO)	\$6,799,013
I	Laydown Area Rentals	\$3,850,000
J	Enabling	\$6,000,000

K	Insurance	\$23,200,000
L	Schedule Allowance	\$8,000,000
M	Additional Relocation of Functional Operations	\$500,000
N	Cultural Monitoring	\$950,000
	Total Allowances	\$67,749,013

END OF PR-05 ALLOWANCES

PR-06 CONSTRUCTION SITE OFFICES/FIELD FACILITIES AND LAYDOWN AREA**1. GENERAL SITE RESPONSIBILITIES**

- A. DESIGN-BUILDER shall assume sole and complete responsibility for the project site in accordance with the contract (GC-40). This includes full responsibility for safety, security, cleanliness, FOD-control, dust-control, Storm Water Pollution Prevention, maintenance, etc. at all construction sites, offices, storage and laydown areas, airside haul routes, employee parking areas, etc.
- B. DESIGN-BUILDER shall identify all necessary and available areas required for the project in its phasing and logistics plans (PR-02 Project Management and Coordination) prior to establishing any CGMP or GMP. This includes, but is not limited to, the size and location of these areas, start and end dates of their use, haul routes, access plans, work schedules, etc.
- C. DESIGN-BUILDER shall submit an Area Shutdown Request (ASR) to LAWA's Shutdown Control Center (SCC) at least 30 days in advance of moving into - and/or working within - any area on LAWA property.
- D. LAWA will issue a "Site Turnover" letter to notify the DESIGN-BUILDER when responsibility for an area is transferred from LAWA to the DESIGN-BUILDER. These responsibilities will remain in effect during working-hours and non-working hours, unless otherwise specified by LAWA.
- E. DESIGN-BUILDER shall provide graffiti and vandalism control throughout all stages of the project. DESIGN-BUILDER shall keep all equipment, offices, storage facilities, and other facilities at the site free of graffiti and vandalism. Graffiti shall be painted over, masked, or cleaned off within twenty-four (24) hours after discovery and/or notification by LAWA.
- F. DESIGN-BUILDER shall restore all areas of the Site to a condition equal to or better than the condition of the areas prior to the start of construction.

2. DESIGN-BUILDER'S CONSTRUCTION FIELD OFFICE

- A. The DESIGN-BUILDER shall provide a construction field office in the DESIGN-BUILDER's staging and laydown area for LAWA's sole use. Any other construction site field offices needed by the DESIGN-BUILDER for his/her use shall be supplied by the DESIGN-BUILDER however, they shall be located within the staging and laydown area site.
- B. The Construction site field office shall be located in the DESIGN-BUILDER's staging and laydown area. Installation of the construction field office, including all permit, furnishings, equipment, and utilities shall be completed by the DESIGN-BUILDER within sixty (60) days of the NTP, or unless otherwise directed by LAWA, and shall be maintained by the DESIGN-BUILDER through the duration of the project. The DESIGN-BUILDER is responsible for the installation and maintenance, including any direct or incidental expenses related to power and telecommunications line between field office(s) and point of service as well as the maintenance, use, and upkeep for the duration of the project. The DESIGN-BUILDER is responsible for temporary power and telecommunications service being installed and operational within sixty (60) days from the NTP, or unless otherwise directed by LAWA. The DESIGN-BUILDER is responsible for ensuring that the construction site field office(s) are properly permitted (including but not limited to plumbing permits).
- C. The DESIGN-BUILDER's staging and laydown area and access thereto shall be kept neat

and orderly throughout construction and all deficiencies in the maintenance of this area shall be promptly corrected by the DESIGN-BUILDER. The site shall be restored to a condition equal to the condition prior to the start of construction and equal to the condition of areas adjacent to the site and as approved by LAWA. Stockpiling of any material in this area will not be permitted without prior approval of LAWA.

- D. The Construction Field Offices for LAWA use shall remain on-site and available to LAWA throughout construction, and through project closeout. Windows shall be provided with security bars. All doors and windows shall be provided with screens, blinds, and locks. All exterior doors shall have a smart key card entry system.
- E. The DESIGN-BUILDER shall work directly with utility-providers to provide connections, meters, and service for electrical, telecommunications, internet, water, sewer, storm drain, and other utilities required for the Construction site field office.
- F. Electric power shall be provided to include a minimum of four (4) 110-volt a/c duplex electric convenience outlets. At least one such outlet shall be located on each wall. The electrical distribution panel shall provide not less than two (2) circuits providing 110-volt, 60-Hertz service.
- G. Lighting shall be provided for office to provide illumination at the tables and desk at a level of 100-foot candles. An outdoor lighting fixture shall be provided at each door at level of 1000-foot candles.
- H. Heating and air conditioning of sufficient capacity shall be provided at no expense to LAWA to adequately control the temperature at all times.
- I. The DESIGN-BUILDER shall provide integral sanitary facilities within office for the sole use of office personnel. Sanitary facilities shall include a water closet and washbasin with hot and cold potable running water. DESIGN-BUILDER to obtain sanitary sewer permit and provide connection to sanitary sewer or equip trailers with holding tanks that will be maintained daily. Each restroom shall be provided with liquid soap and dispensers, toilet paper and dispenser, toilet seat covers and dispenser, paper towels and dispenser, waste baskets, industrial first aid kits with eye washers, and continuous on-going supply of all disposable goods.
- J. Extended area, non-coin-operated telephone service shall be provided within the office area. DESIGN-BUILDER shall be responsible for telephone service installation and installation fees. The installation shall include sufficient extension cord to serve the plan table and desk. Telephone system shall include voice mail accessible from outside phone line and shall accommodate keying in sufficient number of digits to allow access to outside voice mail by name or by number. System specifications must be submitted for LAWA review and approval, including connection fees, usage fees, and full maintenance.
- K. Construction field offices for LAWA and city standards personnel shall be equipped with the furniture, services, and equipment listed below. All furniture, services, cleaning, and equipment will be maintained by the DESIGN-BUILDER upon issuance of the NTP and continue through the duration of the project at no additional expense to LAWA.

Furniture, Services and Equipment⁵	LAWA Inspection	LAWA CM	City Standards	Conference Room/ Shared Area
Quantity				
Minimum square feet of floor area ¹	3,513 SF	12,101 SF	2,766 SF	4,926 SF
Full height partitioned office ² with lockable door. (120 SF minimum)	7	12	2	-
Commercial Internet Service Access Point: Design-Builder shall provide a minimum of 1000 Mbps (1 Gbps) of symmetric data throughput, with the capability to scale up to 2000 Mbps (2 Gbps) or higher based on provider availability and future needs. Equipment to be provided (e.g., antennas, modems) shall support Wi-Fi 6 or Wi-Fi 6E standards to optimize internal network performance.	-	-	-	2
New Printer/Copier/Scanner machine (plain paper) with stand, Model RICOH IM C4500 or approved equal. The DESIGN-BUILDER shall pay for all costs including supplies, staples, hole punching, activation and service fees for duration of the Project	1	2	1	-
New Plotter machine. The plotter shall be a Model HP XL 4100, or approved equal. The DESIGN-BUILDER shall pay all costs, including supplies, activation and service fees for duration the Project	-	1	-	-
Lockable metal supply cabinet	1	3	1	2
Refrigerator, minimum 18 cubic feet	1	2	1	-
Microwave, minimum 2.0 cubic feet	1	2	1	-
Toaster Oven / Air Fryer	1	2	1	-
Paper plates, coffee cups, water cups, coffee machine and coffee, creamer, disposable knives, forks & spoons in each of 3 kitchen areas. Coffee machines shall be manufactured by de Jong Duke Model Zia or approved equal.	-	-	-	2
Kitchen, including sink with hot and cold water, liquid soap, paper towels. Break room table with 4 chairs	1	1	1	-
Refrigerated bottled water dispenser unit, with hot and cold, water dispenser, and disposable cup supply	1	1	1	-
Conference room with table and chairs to accommodate 42 persons	-	-	-	1
Conference room with table and chairs to accommodate 6 persons	-	2	1	-
Conference room with table and chairs to accommodate 10 persons	1	-	-	-

Furniture, Services and Equipment ⁵	LAWA Inspection	LAWA CM	City Standards	Conference Room/ Shared Area
Reception Area: Desk with chair, couch, coffee table, 2 chairs for visitors	-	-	-	1
Wellness Room: Couch and 2 chairs	-	-	-	1
Full Height Cubicles ³ – 5.5' high with integrated storage cabinets - 2 and drawers suitable for holding files with locks	8	58	8	-
iPad tablets with monthly service	-	22	-	-
<ul style="list-style-type: none"> • iPad Pro 13-inch includes the following features noted: Wi-Fi (dual ch.) & Cellular Service (Verizon or AT&T) with 5G network, Storage Capacity of 512 gigabytes or 1 TB, Standard Glass, Color Finish: Space Black, or the latest models/features available by Apple Inc. Plan: Unlimited data service, and total mobile protection plan included for the duration of the project. • Zagg Pro Keys 2 Case and Keyboard Pro Keys 2 Apple - ZAGG keyboards • Latest Generation Apple Pencil Pro • Zagg Tempered Glass Elite - Screen Protector, • OLALA High-Capacity Power Bank 10000mAh Power Bank Portable External Battery Charger. 				
iPad tablets with monthly service:	15	-	-	-
<ul style="list-style-type: none"> • iPad Pro 13-inch includes the following features noted: Wi-Fi (dual ch.) & Cellular Service (Verizon or AT&T) with 5G network, Storage Capacity of 512 gigabytes or 1 TB, Standard Glass, Color Finish: Space Black, or the latest models/features available by Apple Inc. Plan: Unlimited data service, and total mobile protection plan included for the duration of the project. • Zagg Pro Keys 2 Case and Keyboard Pro Keys 2 Apple - ZAGG keyboards • Latest Generation Apple Pencil Pro • Zagg Tempered Glass Elite - Screen Protector • OLALA High-Capacity Power Bank 10000mAh Power Bank Portable External Battery Charger. 				
EV Charging Stations ⁴	-	-	-	26
Conference Room Equipment: monitors, cameras, speakers, microphones, screencast connectivity, conference telephone, power receptacles in floors, dry erase boards.	1	2	1	2

Notes:

1. Reference Exhibit PR-06.1: City Bus Lot Concept drawing for layout and floor plans.
2. All Offices shall have a locking door and include the following furniture: desk with 3 drawers, adjustable chair (Herman Miller Aeron or approved equal), telephone service, internet service connection, power outlets, lighting, waste basket, bookshelf, and dry erase board. Phones shall be Cisco model CP-8851-K9.
3. All cubicles shall include the following furniture: desk with 3 drawers, adjustable chair (Herman Miller Aeron or approved equal), telephone service, internet service connection, waste basket, reading lamp, and dry erase board. Phones shall be Cisco model CP-8851-K9.
4. EV Charging Stations shall be Enphase Model HCS-40R-C17-L25-A141-170-2 or approved equal. Quantity includes charging stations for DESIGN-BUILDER office staff.
5. All equipment, services and items are subject to change and shall be submitted to LAWA for review and approval prior to purchase. Site Field Office design plans and specifications shall be submitted to LAWA for review and approval prior to construction.

3. CONSTRUCTION SITES AND TEMPORARY FACILITIES

- A. DESIGN-BUILDER shall provide and maintain all necessary fences and barricades to ensure the safety and security of the Site, and to contain and/or mitigate impacts to the surrounding operations (noise, vibration, dust, debris, storm water, etc.)
- B. DESIGN-BUILDER shall control and monitor all persons, vehicles, and equipment entering and exiting their construction sites at all times.
- C. DESIGN-BUILDER shall not deliver equipment and/or materials to the construction site until they are ready for installation and/or use. Equipment and materials located on the site, but not being used, shall be left in the work area or at locations to be designated by LAWA. All equipment and material that is no longer needed shall be removed immediately from the site.
- D. DESIGN-BUILDER shall provide and maintain enclosed toilets for the use of employees engaged in the Work. These accommodations shall be maintained in a neat and sanitary condition, and regularly maintained.

4. DESIGN-BUILDER'S EQUIPMENT AND FACILITIES

- A. The DESIGN-BUILDER shall furnish and maintain in good condition all equipment and facilities as required for the proper execution of the work.
- B. The DESIGN-BUILDER shall provide and maintain enclosed toilets for the use of employees engaged in the work. These accommodations shall be maintained in a neat and sanitary condition and regularly pumped out if holding tanks are used.
- C. Storage of equipment and materials left overnight shall be in the DESIGN-BUILDER's staging area or the area designated by LAWA. Areas adjacent to the construction may be made available for temporary use by the DESIGN-BUILDER without cost whenever such use will not interfere with other purposes. Designated areas may be used only for equipment and materials specifically for the use of the Project. The DESIGN-BUILDER shall be liable for any damage caused to such premises or areas. The DESIGN-BUILDER will be responsible for properly securing and safeguarding all equipment and materials stored.
- D. The DESIGN-BUILDER shall restore the operations and storage Yard and adjacent areas to their original or an improved condition prior to final acceptance of the project, or at the discretion/option of LAWA and any AHJ, left in place at completion of the project and ownership shall thereupon be vested to the city.

- E. Equipment and materials shall be stored off the Site or on site locations provided by LAWA until they are to be used on the project. Equipment and materials located on the Site, but not being used, shall be left in the work area or at locations to be designated by LAWA. All equipment that is no longer needed shall be removed immediately from the Site. All other operations of the DESIGN-BUILDER shall be confined to the areas authorized or approved by LAWA.
- F. Graffiti and vandalism control. Throughout all phases of work, including suspension of work, and until final acceptance, the DESIGN-BUILDER, at its sole expense, shall keep all equipment, field offices, storage facilities, and other facilities at the Site free of graffiti and vandalism. Graffiti shall be painted over, masked, or cleaned off within twenty-four (24) hours after notification by LAWA.

5. TEMPORARY UTILITIES

A. Electrical Service

- 1. Provide lighting and power for field offices, storage facilities and other construction facilities and areas.
- 2. Provide power centers for electrically operated and controlled construction facilities including tools, equipment, testing equipment, interior construction lighting, heating, cooling and ventilation equipment.
- 3. Provide night security lighting at secured areas within construction limits at offices, storage facilities, temporary facilities and excavated areas.
- 4. Provide battery operated or equivalent emergency lighting facilities at construction areas where normal light failures would cause employees to be subjected to hazardous conditions. Test such facilities monthly and maintain a record of these tests for the project manager's review.
- 5. Bear all costs of temporary electric and water service permits, fees and deposits required by the governing authorities, and connection charges and temporary easements including installation, maintenance and removal of equipment.

B. Water Service

- 1. The DESIGN-BUILDER shall make all connections and extensions required and shall make use of water in direct support of the work. The DESIGN-BUILDER shall install an approved water department tap at the wye's water source prior to obtaining any water. The DESIGN-BUILDER shall arrange and pay for its supply/distribution system from the city's point of connection. The location and alignment of the DESIGN-BUILDER's temporary supply/distribution system must be approved by the project manager prior to its installation. The DESIGN-BUILDER shall leave in place all above ground and underground water distribution facilities unless otherwise directed by the project manager.
- 2. The DESIGN-BUILDER shall not use in place fire hydrants or standpipes as sources for construction water or potable water.

C. Fire Protection

- 1. Furnish, install and maintain temporary portable fire protection equipment throughout the construction period at all buildings (including the project site), maintenance shops, and fuel storage on all large construction equipment and at the location of any flammable materials or construction materials.

2. Fire Water

- A. The DESIGN-BUILDER shall implement construction phasing to maintain access to and operation of the existing fire hydrants and fire -water supply system until the new fire- water system is completed, tested, and accepted by LAWA, Los Angeles Fire Department (LAFD) and AHJ's
- B. Prior to the start of Construction, the DESIGN-BUILDER shall complete flow and pressure tests at existing fire hydrants that serve the Project Site Offices and Laydown Areas and submit these test results to LAWA. The flow tests shall be coordinated with and witnessed by a designated LAFD field representative.
- C. Any revisions to the existing fire hydrants and fire water supply systems shall be coordinated with and approved by LAWA, LAFD and AHJ's.

3. Fire Water Hydrant Access

- a) The DESIGN-BUILDER shall maintain a standard LAFD truck access to all active existing and new fire hydrants during construction. Any revisions to the access shall be coordinated and approved by LAWA and the LAFD prior to de -activating any existing fire -hydrants.
- b) A minimum width of 20' shall be maintained for LAFD truck access during construction.

6. **ATMP LANDSIDE IMPROVEMENTS LAYDOWN AREA**

- A. Unless otherwise identified in the Contract Documents, Design-Builders shall request Laydown space through LAWA's Coordination and Logistics Management (CALM) team if renting LAWA properties. Requests should be submitted according to the Logistical Work Plan section of the Design and Construction Handbook, CALM requirements in the Construction subsection:
 - 1. Cost = \$10.17/SQFT – yearly (subject to change based on periodic adjustments to fair market value).
 - 2. Contact information: John Gruendl (jgruendl@lawa.org) – 424-646-7448 or Mark Henry (mhenry@lawa.org) – 424-646-7167
- B. The monthly lease cost will be treated as a pass-through cost with no mark-up.
- C. DESIGN-BUILDER shall maintain all parking, storage and laydown areas in a neat and orderly manner throughout all stages of the Project. If LAWA reports any deficiency in the maintenance and/or condition of the areas, then the DESIGN-BUILDER shall promptly correct the issue within 24 hours. Any deficiency regarding safety and/or security shall be corrected immediately. All material and equipment shall be stored, cared for and maintained in accordance with the material or equipment manufacturer's requirements.
- D. DESIGN-BUILDER shall provide and maintain standard green mesh and fencing around the perimeter of their parking, storage and laydown areas, unless otherwise directed by LAWA.
- E. DESIGN-BUILDER shall provide sufficient off-site storage areas (i.e. not on LAWA property) procured by the DESIGN-BUILDER prior to the date in which it will be constructed and/or installed at the Project Site.
- F. LAWA is providing sites/parcels available as Laydown Areas for ATMP project as shown in Exhibit PR-06.2. The DESIGN-BUILDER shall determine the most cost-effective means to meet the project needs for laydown areas based on each phase, scope elements, and schedule.

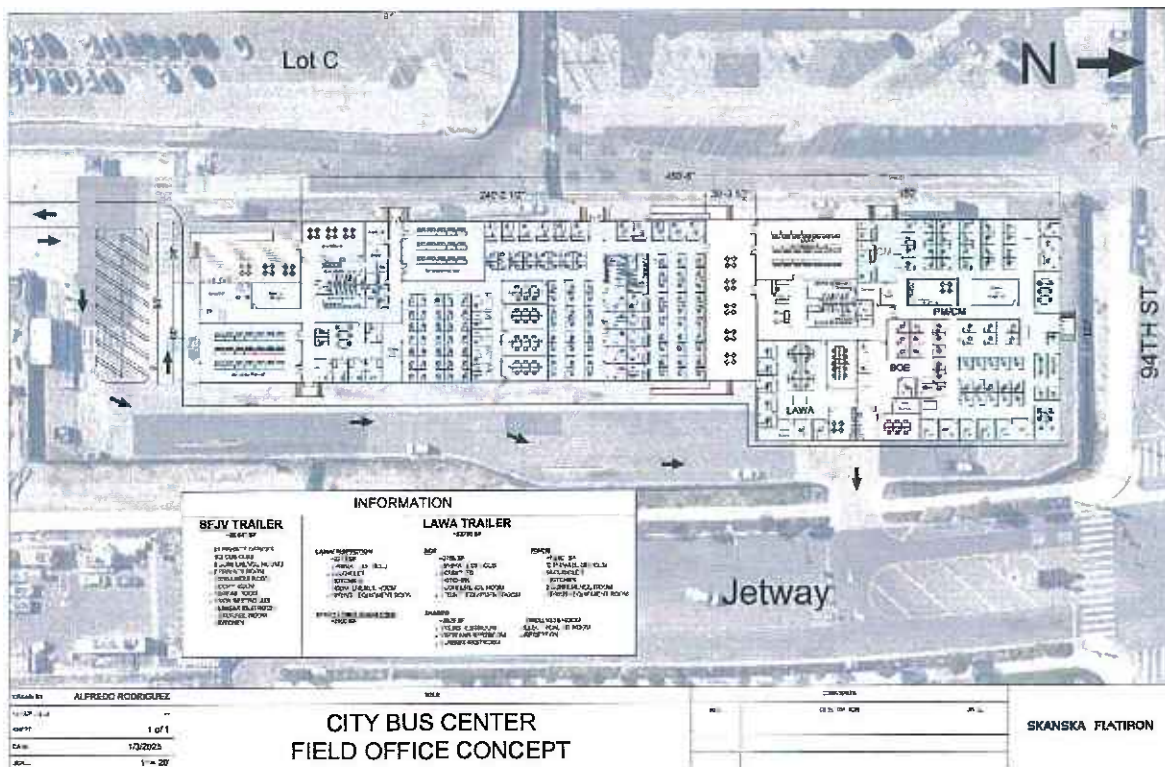


Exhibit PR-06.1: City Bus Center Field Office Concept_1-3-25



END OF PR 06 CONSTRUCTION SITE OFFICES/FIELD FACILITIES AND LAYDOWN AREA

PR-7 UTILITIES

1. GENERAL

- A. It is imperative that the DESIGN-BUILDER establishes close coordination with LAWA, and other organizations for all construction activities and for utilities system cutovers and shutdown of equipment and systems.
- B. In advance of the pre-final design submittals, DESIGN-BUILDER shall take actions necessary to establish the existence, type, exact location, and size of utilities, including service lines. DESIGN-BUILDER shall also determine existing utility material type, size, and condition of pipe at connection point, where applicable, for design purposes and as required by approving utility owner. DESIGN-BUILDER shall consider necessary appurtenances to each Utility (including utility source, guide poles, feeder service lines, supports, pull boxes, and wire loops) as part of a utility.

2. REQUIREMENTS

- A. The DESIGN-BUILDER shall avoid impacting stakeholder operations during their normal working hours. Some construction activities, including system cutovers and temporary shutdowns, will be restricted to short five (5) hour work windows scheduled between the hours of 12:01 AM and 5:00 AM (Actual shutdown times will vary due to specific system availability). DESIGN-BUILDER shall use available times efficiently, consistent with the phasing requirements of the contract, and shall include contingency and recovery plans to return systems to operation if the scheduled cutovers/shutdown work cannot be completed within the allotted time.
- B. Tasks for which the DESIGN-BUILDER will be required to complete will include, but will not be limited to:
 - 1. Review of as-builts, Navigate LA utility maps, LAWA's Airport Engineering GIS (AEGIS), system making diligent inquiries at the offices of utility providers and operators, testing, GPR and other investigative tasks as needed to identify type, route, ownership, users, and operational status of the service.
 - 2. Coordinate with, and obtain required approval from utility owners, governmental persons, authority, and other applicable third parties as necessary, for all utility work
 - 3. Dewatering of existing utility structures, as required for investigations and modifications.
 - 4. Coordination with owning and/or operating agencies and users regarding outages.
 - 5. Providing and installing or adjusting as necessary replacement ducts, cables, pipes, or other utility infrastructure if the service is to remain functional.
 - 6. Safely abandoning in place, or removing, as required by LAWA, any utility services.
 - 7. All necessary permitting or other administrative tasks as needed to safely remove and relocate the service, if operational, or to safely remove and abandon the services, if currently non-operational.
 - 8. All work shall be done in conformance with the owning agencies requirements, with these specifications, and with local, state, and federal standards.
 - 9. Provide detailed survey, including horizontal and vertical coordinates, and description of any existing utilities exposed during performance of the work in accordance with LAWA's LAX Survey Control Network 2018, located in the Design and Construction Handbook,

BIM Standards Chapter 10, under LAWA's Survey Standards.

10. All proposed utilities and exposed existing condition utilities shall be modeled and documented in accordance to VOL-2 LAWA BIM Requirements, located the Design and Construction Handbook. (See PR-21). The DESIGN-BUILDER shall provide a final Record Model at the end of the project based on field-verified (actual) conditions.
- C. The DESIGN-BUILDER shall assume full responsibility for verifying and documenting the existing conditions, to be included in design services as described in the project requirements. This includes, but is not limited to, verifying the location, depth, alignment, size, function, and condition of all existing utilities affected by and/or relevant to the proposed project. Documentation of the condition of all affected utilities shall include electronic (photographs and video) and hard copies upon request. LAWA file naming convention shall be utilized to name the electronic files. The DESIGN-BUILDER shall perform public records research, field-investigations, surveying, and other verification methods to provide thorough and accurate records of existing conditions.
- D. The DESIGN-BUILDER shall utilize the services of a Professional Land Surveyor licensed in the State of California and a subsurface utility engineering (SUE) experience person with expertise in providing utility mapping, utility coordination and utility relocation. As part of the SUE effort, the DESIGN-BUILDER shall provide surveying services to map, locate and collect data associated with subsurface and overhead utilities. In all cases, data shall be collected and depicted in accordance with LAWA Survey Standards and ASCE 38-02 Standard Guidelines for the collection and depiction of Existing Subsurface Utility Data.
- E. The DESIGN-BUILDER shall justify to LAWA where advanced technologies are required. The DESIGN-BUILDER shall perform advanced technology investigations as soon as practicable, a sufficient time in advance of 60% design to avoid possible delays to the DESIGN-BUILDER's work.
- F. The DESIGN-BUILDER shall be required to conduct exploratory excavations and potholing as required to support design. The DESIGN-BUILDER shall perform the necessary potholing and exploratory excavations as soon as practicable, to avoid possible delays to the DESIGN-BUILDER's Work.
- G. The DESIGN-BUILDER shall create and provide to LAWA a BIM model that includes all existing and proposed conditions, in accordance to PR-21 Building Information Model (BIM) and VDC Coordination.
- H. The DESIGN-BUILDER shall bring to LAWA's attention the existence of certain underground facilities that may require special precautions be taken by the DESIGN-BUILDER to protect the health, safety, and welfare of workers and of the public. Facilities requiring special precautions include, but are not limited to: fire protection systems including fire hydrants and associated underground utilities to remain in service; underground electric supply system conductors or cables, with the potential to ground more than 300 V, either directly buried or in duct or conduit which do not have concentric grounded or other effectively grounded metal shields or sheaths.

3. **AUTHORITY FURNISHED UTILITY INVESTIGATION DATA**

- A. The Authority has performed investigations of existing utilities and has provided composite existing utility drawings. The accuracy of the existing utility information and the tolerances that apply are described below.
- B. A utility shall be considered identified with "reasonable accuracy" to the extent that:

1. The utility's actual location (position) is within five feet on either side of the outside face of the existing underground utilities as depicted in Volume 2 Composite Utility Drawings. There is no limitation on vertical location;
2. The facility's actual size does not differ by more than 35 percent of the size indicated in Volume 2 Composite Utility Drawings; provided, however, that if the sizes indicated in the contract documents differ for any reason, the size closer to the actual size shall be used for this calculation:
 - a. Actual size criteria shall be measured using the utility's inside diameter (ID) measurements;
 - b. Where multi-conduit/duct or encased Utilities are encountered, the actual size shall be compared to the dimension required for encasement per the standards and criteria of the utility owner and jurisdictional governmental agencies; and
 - c. Where a duct or dry utility conduit has been identified in the contract documents with no reference to conduit size and quantity, DESIGN-BUILDER shall assume the dimension of duct/encased conduit to be a minimum of 24 inches wide by 18 inches tall;
3. The utility material is not materially different than that indicated in the composite existing utility drawings; and
4. It could have been determined based on a surface investigation of the site.
5. Notwithstanding the foregoing, DESIGN-BUILDER acknowledges and agrees that:
 - a. Existing utility information in Volume 2 composite utility drawings may not identify all Utilities within the project limits.
 - b. The existing utility information in Volume 2-Composite Utility Drawings may not show the identified utilities at their correct locations or depth or indicate their correct sizes or type; and
 - c. The Authority has performed pothole and manhole investigations of certain existing utilities and this information has been provided to DESIGN-BUILDER solely for information purposes only.

4. UTILITY LOCATION AND IDENTIFICATION GUIDELINES

- A. Attempts have been made to identify existing utilities in the various work areas of the project and to indicate existing utilities on the utility composite plan. Verification of the utilities shown on the utility composite plan shall be verified by the DESIGN-BUILDER. Due to the age of the facility, and the variety of utility agencies operating at the airport, there may be utility services discovered during construction that are not shown or differ from information shown on the utility composite plan. It will be the responsibility of the DESIGN-BUILDER to report such findings to LAWA immediately.
- B. Pursuant to Section 4216 of the Government Code, at least 2 days prior to commencing any excavation, the DESIGN-BUILDER shall contact the regional notification center (Underground Service Alert of Southern California) and obtain an inquiry identification number.
- C. In instances when working in the vicinity of state highways, the DESIGN-BUILDER shall contact CALTRANS directly for the location of its subsurface installations.
- D. The DESIGN-BUILDER shall contact utility providers after the I.D. number is obtained from

the Underground Service Alert [USA] (1-800-227-2600) but not less than fourteen (14) days before any excavation work is started, to mark or identify existing utilities. If the utility is owned by the City of Los Angeles, or the City of Ontario a confirmation number indicating that these cities have been notified shall be obtained by USA and/or the DESIGN-BUILDER from the appropriate city departments. The I.D. number together with the date acquired shall be reported to the inspector when calling for inspection.

- E. The DESIGN-BUILDER shall mark all Federal Aviation Administration (FAA), LAW A, L o s Angeles Department of Water and Power (LADWP), communication, and fiber-optic lines prior to any work in a given area, after demolition of pavements. Marking shall consist of a 36-inch high lathe, placed ten (10) feet on center, or other approved markings. Lathe shall be marked with the words "DANGER – FAA" or equivalent, and shall be affixed with red or orange surveyor tape to enhance visibility.
- F. The DESIGN-BUILDER shall determine the location and depth of all utilities, including service connections.
- G. The DESIGN-BUILDER shall expose and verify by survey, the depth and alignment of all underground utilities at the site, prior to commencing excavation. The basis of survey must tie into LAW A's LAX Survey Control Network. The DESIGN-BUILDER shall pothole and survey all utilities prior to excavation. All such exploratory excavations shall be performed as soon as practicable after the NTP for each task order and in any event, a sufficient time in advance of construction to avoid possible delays to the DESIGN-BUILDER's work. When such exploratory excavations show the utility location as indicated on the drawings to be different, the DESIGN-BUILDER shall immediately notify LAW A and shall note utilities on As-Built construction plans in accordance with all applicable standards, as required by LAW A and provide a complete Existing Conditions Model to LAW A in accordance to the LAW A BIM Standards (PR-21). The DESIGN-BUILDER should not rely upon plan designation of location of underground utilities. The number of exploratory excavations and extent of potholing required shall be that number which is sufficient to determine the alignment and grade of the utility.
- H. The DESIGN-BUILDER shall identify all existing, proposed and newly abandoned utilities in their Design Documents, Construction Documents, and BIM Models. Refer to LAW A BIM Requirements, for utilities, located in the Design and Construction Handbook. The DESIGN-BUILDER shall maintain each of those deliverables as the verification and/or construction of utilities progresses, and shall assume full responsibility for ensuring their accuracy and completeness..

5. POTHOLING

- A. DESIGN-BUILDER shall provide qualified personnel, equipment, permits, traffic control measures, and other items as required to conduct a safe and accurate field excavation to expose any existing Utility by method of potholing. **DESIGN-BUILDER acknowledges that such work is a prerequisite to completing all Utility Work design.**
- B. Potholing shall be performed at locations (i.) determined by DESIGN-BUILDER, (ii.) where required by Utility Owners and/or Governmental Persons, and (iii.) as directed by the Authority. Potholing shall include accurate survey data collection for each pothole taken. Potholing data shall be added to the design and as-built drawings prepared by DESIGN-BUILDER. At a minimum, pothole data shall include the horizontal and vertical location and size of the Utility. Where discernable, the material type of the Utility shall also be indicated. DESIGN-BUILDER shall submit to the Authority for record a log of all pothole data that is obtained, including a CAD file with all the pothole data points, per the LAW A BIM Standards,

as well as all backup information (e.g., survey measurements, notes, or sketches) that provides verification of the individual potholes.

6. NOTIFICATIONS BY THE DESIGN-BUILDER

- A. Prior to excavation in the vicinity of existing underground facilities, the DESIGN-BUILDER shall notify LAWA, and the respective authorities representing the owners and agencies responsible for such facilities, not less than three (3) days and not more than five (5) days, prior to excavation so that a representative of the owners or agencies can be present if they so desire.
- B. DESIGN-BUILDER shall notify LAWA in writing at least six (6) weeks prior to the expected started date of utility system installation or modification.
- C. DESIGN-BUILDER shall notify LAWA, in writing, at least fifteen (15) days in advance of taking any existing utility line out of service. Arrangements satisfactory to LAWA must be made prior to taking any existing utility line out of service for any purpose. The DESIGN-BUILDER shall confirm with LAWA twenty-four (24) hours prior to disconnect.
- D. The DESIGN-BUILDER shall notify LAWA, in writing, at least thirty (30) days in advance of any proposed connection and shall notify LAWA twenty-four (24) hours prior to the actual connection to any existing utility.
- E. The following includes a list of utility companies whose facilities may be impacted by this project. Inclusion on this list does not imply that the agency listed has a facility affected by the project, nor does the absence of an agency on the list imply that they do not have a facility affected by the project.

Continued on next page

Agency:	Name:	Phone Number:
Telecommunications Agencies AT&T Time Warner Cable (TWC)	Allen Cole TBD	(760) 220-5539 TBD
Los Angeles Department of Public Works BOE BOS Bureau of Street Services Bureau of Street Lighting	Jim Wu Chris Demonbrun Lance Oishi Silva Batikian	(310) 575-8629 (323) 342-1567 (213) 847-0903 (213) 847-1524
Los Angeles Department of Building and Safety (LADBS)	Lily Teng	(213) 482-6871
Los Angeles Department of Water & Power (LADWP) Water Distribution Recycled Water Power	Mark Patterson Mario Acevedo Wayne Hinkson	(213) 367-1219 (213) 367-0761 (213) 367-6002
Federal Aviation Administration (FAA)	Mike Ensign	(310) 925-9172
FAA Communications	Jimmy Huang	(310) 215-2052
LAWA Communications	Mark Pohl	(424) 646-5915
LAX Fuel	Jim Moses	(310) 646-5915
	Doug Quast	(310) 646-4961
National Oceanic and Atmospheric Administration (NOAA)	Gary Strickland	(805) 988-6626
Southern California Edison (SCE) – Communication	Michelle Lambert	(310) 608-5101
Southern California Gas Company (SCG) - aka Sempra Utilities	Gale Etherly	(310) 687-2020
MTA	Mark Glick	(310) 431-3362
Los Angeles Department of Transportation (LADOT)	Randy Tanijiri	(213) 972-8687
CalTrans	Tin Dinh	(213) 897-0112
Verizon Business	Dan Garden	(909) 421-3316
XO Communications	Matt Bergine	(949) 417-7841
Centurylink	Bryan Church	(503) 560-5590
Shutdown Control Center (SCC)	John Mitchell	(424) 646-5977
Airport Police Department (APD)		(424) 646-7911
Airport Response Coordination Center (ARCC)		(424) 646-5292

The table above is a collection of the latest known agency contact names and phone numbers. It will be the DESIGN-BUILDER's responsibility to verify this information.

7. SCHEDULE COORDINATION

Coordination of work between various utility agencies and work by the DESIGN-BUILDER shall be the sole responsibility of the DESIGN-BUILDER. Delays to the schedule due to utility agency coordination issues that, in the opinion of LAWA, could have been prevented by timely intervention and coordination on the part of the DESIGN-BUILDER will not be credited to the DESIGN-BUILDER's contract schedule requirements.

8. DEWATERING

DESIGN-BUILDER shall dewater existing utility structures as needed for utility investigations and/or completion of the work, including existing electrical and communications structures. Dewatering shall be completed in accordance with state and local requirements, and the environmental requirements of these contract documents. Refer also to PR 18.

9. UTILITY COORDINATION AND SHUTDOWN PROCEDURES AT LAWA

A. USR and ASR and LIR Procedures at LAX

1. The SCC manages all aspects of utility and area shutdowns for the LAX campus. The SCC was instituted to manage and centralize the numerous amounts of expected utility shutdowns and public disruptions due to the planned construction projects taking place throughout LAX. A utility shutdown is defined as a disruption of operations to the facility's normal utility for a set period of time. An area shutdown is defined as a disruption of operations to the facility's operational space for a set period of time. The utility shutdowns cover the following systems: electrical, water, natural gas, fuel, fire alarm, security/ACAMS, sewer, communications, HVAC and sprinklers. The area shutdowns include all landside, airside, and terminal areas which require any traffic closure, restriction to public access, elevator/escalator, restroom closures, and gate/taxiway closures. The DESIGN-BUILDER is responsible for submitting a USR or ASR to LAWA for all scheduled shutdowns. The DESIGN-BUILDER is responsible for reviewing, scheduling and coordinating all aspects of the shutdown, preferably early on with LAWA. Once submitted to the SCC, the USR or ASR is processed and approved by the SCC and the DESIGN-BUILDER is subsequently notified. A contingency plan will need to be put in place by the DESIGN-BUILDER to facilitate the disruption. The DESIGN-BUILDER will identify all actions necessary to mitigate disruptions, maintain operational readiness and execute the plan.
2. USR: The USR **must be submitted 30 days prior** to the proposed shutdown. The DESIGN-BUILDER shall submit all USR forms, including the Application, Impact Analysis and Impact Analysis Checklist. These forms will enable the primary stakeholders to be notified of the time and date of shutdown, the type of shutdown, specific location, affected systems, point of contacts, proposed work and mitigation plans. The DESIGN-BUILDER must field verify all existing conditions prior to the start of the utility shutdown. The DESIGN-BUILDER should be aware of LAWA blackout days during holiday construction restriction periods. Only LAWA is permitted to disrupt or disconnect any utility system. The DESIGN-BUILDER is responsible for contacting the Airport Response Coordination Center (ARCC) thirty (30) minutes prior to the actual utility shutdown and immediately following the utility restart.
3. ASR: The ASR **must be submitted 30 days prior** to the proposed shutdown. The DESIGN-BUILDER shall submit all ASR forms, including the Application, Impact

Analysis and Impact Analysis Checklist. These forms will enable the primary stakeholders to be notified of the time and date of shutdown, the type of shutdown, specific location and operational zone, affected parties and facilities, points of contact, proposed work and mitigation plans. The DESIGN-BUILDER must field verify all existing conditions prior to the start of the area shutdown. The DESIGN-BUILDER should be aware of LAWA blackout days during holiday construction restriction periods. The DESIGN-BUILDER is responsible for contacting the ARCC thirty (30) minutes prior to the actual shutdown and immediately following the restoration of operations. The required forms are attached hereto. Please note that the DESIGN-BUILDER must use the most current form.

4. LAWA will provide the successful bidder with the latest copies of the USR and ASR forms that shall be used for this project.
5. LIR; DESIGN-BUILDER may also be required to obtain approved LIR through LAWA CALM group.

9. PROTECTION

- A. All utilities encountered along the line of the work shall be maintained continuously in service during all the operations under the contract, unless otherwise agreed to by the utility and LAWA. Utilities shall include, but not be limited to, all above or below ground conduit, pipes, wet wells, ducts, cables, and appurtenances associated with oil, gas, water, steam, irrigation, sewer, storm drain, wastewater, air, electrical, power, instrumentation, communication, telephone, TV, and lighting systems, whether or not owned by the city. All valves, switches, vaults, and meters shall be maintained readily accessible for emergency shutoff.
- B. Where protection is required to ensure support of existing utilities, the DESIGN-BUILDER shall, unless otherwise provided, furnish and place the necessary protection at its expense.
- C. Upon learning of the existence and location of any utility omitted from or shown inaccurately on the plans, the DESIGN-BUILDER shall immediately notify LAWA in writing.
- D. Fire and police call boxes and conduits shall be protected by the DESIGN-BUILDER. Should any of these facilities be damaged by the DESIGN-BUILDER's operations, immediate notification shall be given to LAWA. Damaged facilities will be replaced by LAWA at the DESIGN-BUILDER's expense.
- E. When placing concrete around or contiguous to any non-metallic utility installation, the DESIGN-BUILDER shall:
 1. Furnish and install a 2-inch cushion of expansion joint material or other similar resilient material; or
 2. Provide a sleeve or other opening which will result in a 2-inch minimum-clear annular space between the concrete and the utility; or
 3. Provide other acceptable means to prevent embedment in or bonding to the concrete.
- F. Where concrete is used for backfill or for structures which would result in embedment, or partial embedment of a metallic utility installation; or where the coating, bedding or other cathodic protection system is exposed or damaged by the DESIGN-BUILDER's operations, the DESIGN-BUILDER shall notify LAWA and arrange to secure the advice of the affected utility regarding the procedures required to maintain or restore the integrity of the system.

- G. All new underground utility conduits shall have a minimum cover of eighteen (18) inches and shall have identifying detectable tape placed in the trench above the conduit. The detection tape shall be made of metalized foil laminated between two layers of inert plastic film, six (6) inches wide and a minimum of 4.5 mils thick, as described here:
 - 1. Safety Red = Electric and lighting conduit and cables.
 - 2. Safety Yellow = Gas, oil, steam, petroleum or gaseous materials.
 - 3. Safety Orange = Telephone, alarm, or signal cables and conduit.
 - 4. Safety Blue = Potable water or irrigation.
 - 5. Safety Green = Sewer or drain lines.
- H. The detection tape shall be placed directly above and reasonably horizontal for the full length of the conduit. For conduits with less than four (4) feet of cover, install tape four (4) to eighteen (18) inches below the subgrade surface and at least twelve (12) inches above the conduit. For conduits with more than four (4) feet of cover, install tape at least three (3) feet above the conduit.
- I. Upon completion of the Work, the DESIGN-BUILDER shall remove all enclosures or protective coverings and leave the work area in a finished condition.

10. DAMAGE TO EXISTING UTILITIES AND IMPROVEMENTS

- A. The DESIGN-BUILDER shall protect all existing utilities and improvements not designated for removal. Physical protection of utilities in proximity of pavement sections shall be provided by the DESIGN-BUILDER in all cases. Except where noted on the plans, encasement protection of utilities in proximity of pavement sections shall require prior approval of LAWA. Protection of utilities shall be as indicated on the plans or as required for DESIGN-BUILDER's operations.
- B. Any utility or improvement that is damaged by the DESIGN-BUILDER shall be immediately reported in writing to LAWA and immediately repaired to a condition equal to or better than the condition they were in prior to such damage. Repair Work shall be continuous until the utility or improvement is placed back in service.
- C. The provisions of this Subsection shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.
- D. All repairs to a damaged utility or improvement shall be inspected and approved by an authorized representative of the utility or improvement before being concealed by backfill or other Work.
- E. In case of damage, which in the opinion of LAWA threatens the safety of persons or property, the DESIGN-BUILDER shall immediately make all repairs necessary for removal of the hazard. Should the DESIGN-BUILDER fail to take prompt action to this end, LAWA has the option to remove any hazard resulting from damages caused by the DESIGN-BUILDER without waiving any other rights LAWA may have, and costs will be charged to the DESIGN-BUILDER.
- F. If an existing utility or substructure was not shown in the original contract documents, but has been made known to the DESIGN-BUILDER prior to excavation, the utility or substructure shall be considered as an existing known condition. Under these circumstances, the DESIGN-BUILDER shall be responsible for protecting the utility. Damage

to a utility, which has been made known to the DESIGN-BUILDER, shall be repaired by the DESIGN-BUILDER. The DESIGN-BUILDER shall, at its own expense, satisfactorily repair damage to any known pipeline, sewer, conduit, utility, or other underground structure which may result from its operations or negligence. If it is necessary for LAWA to repair such damage, the DESIGN-BUILDER shall be billed for and shall pay the actual cost to LAWA for labor and materials plus fifteen percent (15%) administrative costs.

- G. All materials, labor, supervision and incidentals necessary to construct protections as detailed on the plans or as needed for DESIGN-BUILDER's operations will be considered incidental to the related bid items in the project.

11. REMOVAL

- A. Unless otherwise specified, the DESIGN-BUILDER shall remove all interfering portions of utilities shown on the plans as "abandoned" or "to be abandoned in place". Before starting removal operations, the DESIGN-BUILDER shall ascertain from LAWA whether the abandonment is complete. If abandoned in-place, the DESIGN-BUILDER shall identify and record all utilities. Abandonments must be done in accordance to the applicable codes and specifications.
- B. The DESIGN-BUILDER shall remove all wire from an electrical duct bank that is being abandoned and disconnect same from servicing panel. Such wire shall be disposed of at LAWA's discretion.

12. AVOIDING RELOCATIONS AND MINIMIZING OWNER COSTS

- A. In finalizing the design of the project, DESIGN-BUILDER shall consider the location of utilities and potential impact of utility work, and make good faith efforts to:
1. Avoid impacts on utilities to the extent practicable;
 2. Protect in place to the extent practicable;
 3. Minimize relocations to the extent practicable; and
 4. Minimize the potential costs and delays relating to utility work to the extent practicable.

13. RELOCATION

- A. Where the proper completion of the work requires the temporary or permanent relocation and/or removal of an existing utility or other improvement which is shown on the plans, and in coordination with the construction phasing requirements, the DESIGN-BUILDER shall at its own expense and without unnecessary delay, temporarily or permanently relocate or replace such utility or improvement in a manner satisfactory to LAWA and the owner of the utility. All cases of such temporary relocation, removal, or restoration shall be accomplished by the DESIGN-BUILDER in a manner that will restore or replace the utility or improvement, as nearly as possible to its former location, and to as good or better condition than found prior to removal.
- B. All existing utilities relocated by the DESIGN-BUILDER shall not be out of service for more than one continuous four (4) hour period, unless otherwise specified. This four (4) hour shutdown period for switch-over shall be performed at night.

- C. All relocated utilities shall be surveyed and mapped in accordance with LAWA utility as-built survey standards, data collection and recording requirements for new utility infrastructure.

14. DESIGN-BUILDER'S RESPONSIBILITY

- A. The DESIGN-BUILDER shall be responsible for performing the work without regard to any of the following:
1. Whether or not the utility was indicated on the composite utility drawings, or is indicated, whether or not the utility was identified with "reasonable accuracy" therein;
 2. Any additions or modifications that may have been made to the utility service since the proposal date
 3. The accuracy or inaccuracy of any of any other information provided by the Authority concerning the utility

END OF PR-7 UTILITIES

PR-08 REQUESTS FOR INFORMATION

1. GENERAL

This Section covers general requirements for both the DESIGN-BUILDER's and Owner's Requests for Information (RFI).

2. REQUIREMENTS

- A. The DESIGN-BUILDER shall prepare and transmit all RFIs and associated documents promptly and in conformance with the approved project schedule so as not to delay the progress of the work.
- B. The DESIGN-BUILDER shall transmit all RFIs and associated documents to LAWA electronically using LAWA's Prolog database or other LAWA project manager software.
- C. The DESIGN-BUILDER shall continue all work necessary to maintain project progress while waiting for LAWA to reply to a RFI, unless otherwise directed by LAWA in writing.

3. DESIGN-BUILDER'S REQUESTS FOR INFORMATION

- A. The DESIGN-BUILDER's Engineer of Record (EOR) shall be the primary reviewer and responder of RFIs from the DESIGN-BUILDER's construction staff and/or their subcontractors.
- B. The DESIGN-BUILDER shall review and sign all RFIs and responses prior to submitting to LAWA to verify conformance to the contract.
- C. The DESIGN-BUILDER shall log all RFIs and responses into LAWA's Prolog database or other LAWA project manager software within three (3) working days of receipt of the RFI or response.
- D. LAWA will review the RFIs and responses for informational purposes only, and shall have no responsibility for RFI content, responses or approval of RFIs between the DESIGN-BUILDER and their Designers and/or Subcontractors.
- E. The DESIGN-BUILDER shall submit RFIs to LAWA for LAWA's response when one or more of the following conditions apply:
 - 1. The DESIGN-BUILDER requires formal clarification of the content and/or requirements in one or more of the contract documents and/or reference documents provided by LAWA.
 - 2. The DESIGN-BUILDER would like to formally propose a clarification to their plans and/or specifications after the associated CGMP or GMP has been established, and/or changes that have the potential to affect their conformance to the contract documents.
 - 3. An unforeseen condition or constructability issue arises requiring LAWA's input.
- F. The DESIGN-BUILDER and their subcontractors shall submit all RFIs in a timely manner so as not to interfere with or impede the progress of the work.
- G. The DESIGN-BUILDER shall submit any RFI requiring LAWA's response as follows:
 - 1. Submit a legible written request on a form provided by LAWA or on a form approved in advance by LAWA. Include the following information:

- a. Project Name (including GMP and/or CGMP package number)
 - b. Date of submittal to LAWA.
 - c. Date that the DESIGN-BUILDER identified the condition requiring the RFI.
 - d. Name, address, telephone, and email address of the DESIGN-BUILDER.
 - e. Contract and/or reference documents (i.e. Specification section and/or page numbers, drawing sheet numbers, detail numbers, etc.).
 - f. Clear, concise explanation of information or clarification requested.
 - g. Desired response date.
 - h. Proposed solution.
2. Each page of each attachment to the RFI shall bear the project title and RFI number in the lower right corner.
 3. Each RFI shall be identified by sequential numbering. Multiple questions within a single RFI shall be numbered sequentially within.
 4. DESIGN-BUILDER shall allow a minimum of five (5) working days for LAWA's response to each RFI.

4. LAWA'S REQUEST FOR INFORMATION

- A. LAWA may choose to issue RFIs to the DESIGN-BUILDER to obtain formal clarification of the content and/or requirements in one or more of the contract documents and/or reference Documents provided by the DESIGN-BUILDER, or to obtain a formal explanation for an action taken by the DESIGN-BUILDER.
- B. LAWA will issue RFIs to the DESIGN-BUILDER in writing through LAWA's Prolog database or other LAWA project manager software, and DESIGN-BUILDER shall provide written responses within the same database and software.
- C. The DESIGN-BUILDER shall provide a written response to all LAWA RFI within five (5) working days of issuance. DESIGN-BUILDER may request in writing a specified time extension to the RFIs response and provide reasonable justification for the requested time extension subject to LAWA's approval.

5. THIRD PARTY REQUEST FOR INFORMATION

DESIGN-BUILDER shall be solely responsible for all coordination and submission to AHJ's/Third parties. All RFI's to/from AHJ/third party's shall be copied to LAWA.

6. QUALITY ASSURANCE

- A. The DESIGN-BUILDER shall carefully review the contract documents, and incorporate those requirements into their RFIs and responses.
- B. The DESIGN-BUILDER shall not use a RFI for the following purpose:
 1. To request approval of submittals (see PR-09).
 2. To request approval of substitutions (see PR-10).
 3. To request changes to the contract documents.

- C. LAWA's responses to RFIs shall not be construed as approvals to perform extra work or to change the requirements of the contract documents. If the DESIGN-BUILDER believes that a response to an RFI may result in a change to the contract price and/or time, then DESIGN-BUILDER shall notify LAWA, in accordance with the change provisions of the contract. If DESIGN-BUILDER believes that a LAWA response to an RFI results in a change the DESIGN-BUILDER is to submit a CPCN to LAWA within 7 days.

END OF PR-08 REQUEST FOR INFORMATION

PR-09 SUBMITTAL PROCEDURES

1. GENERAL

This section includes administrative & procedural requirements for submitting shop drawings, product data, samples, quality control reports, and other submittals as identified in the technical specifications, project requirements, contract documents, and scoping documents. For submittals related to CADD and or BIM modeling, refer to Project Requirements (PR-21) for Building Information Model (BIM) and VDC Coordination. For additional requirements for pre-construction/ design phase submittals; comply with PR-01 and PR-11.

2. SUBMITTALS SCHEDULE

A. The DESIGN-BUILDER shall submit a submittal schedule no later than twenty one (21) days after the Notice to Proceed (NTP), arranged in chronological order by dates required by the project schedule. The DESIGN-BUILDER shall include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates, and include additional time required for making corrections or modifications to submittals noted by LAWA and additional time for handling and reviewing submittals required by those corrections.

1. The DESIGN-BUILDER shall coordinate their submittal schedule with their subcontractors, schedule of values, and the project schedule.
2. The DESIGN-BUILDER shall provide an initial submittal schedule within their proposal. The initial submittal schedule shall include all submittals required during the first 60 days of construction, and key submittals required to maintain orderly progress of the Work, such as submittals for items with long lead times for fabrication and/or delivery.
3. The DESIGN-BUILDER shall provide a final submittal schedule not later than 21 days after the NTP.
4. The DESIGN-BUILDER shall provide their submittal schedule in tabular format with the following information:
 - a. Scheduled date for first submittal
 - b. Specification section number and title
 - c. Submittal category: "Action", "Informational"
 - d. Description of the work covered
 - e. Scheduled date for LAWA's final release or approval
 - f. Scheduled dates for purchasing
 - g. Scheduled dates for installation
 - h. Activity or event number

3. Submittal packaging REQUIREMENTS

A. The DESIGN-BUILDER shall prepare and provide all submittal items required for each specification section concurrently. However, the DESIGN-BUILDER shall provide "Action" submittals and "Informational" submittals required by the same Specification section as separate packages under separate transmittals in Prolog or other LAWA project management

software.

- B. DESIGN-BUILDER shall identify any and all related submittals requiring coordination on each submittal transmittal.
- C. DESIGN-BUILDER shall coordinate different types of submittals for related parts of the work so that processing will not be delayed because of the need to review submittals concurrently for coordination. LAWA reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received. LAWA's review period will not begin until all related submittals are received by LAWA.

4. SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. DESIGN-BUILDER shall prepare and transmit all project related documents and submittals in conformance with the project schedule so as not to delay the progress of the work. Any delay in procurement and/or construction associated with submittals and/or resubmittals is solely the responsibility of the DESIGN-BUILDER, and no additional time nor compensation shall be granted by LAWA.
- B. DESIGN-BUILDER shall provide 3 hard copies and 2 electronic copies of all submittals. Electronic copies shall be provided in both .pdf and editable native formats (.docx, .xlsx, .pptx, .mpp, .xer, .dwg, .dwf, etc.), unless otherwise specified. See PR-21 for BIM and VDC requirements.
- C. DESIGN-BUILDER shall transmit electronic copies of all submittals to LAWA using LAWA's submittal transmittal form in LAWA's Prolog database or other LAWA project manager software, as well as on a flash drive, hard drive, or CD.
- D. Submittals received from sources other than the DESIGN-BUILDER (i.e. subcontractors, material suppliers, etc.) will be returned by LAWA with no action taken.

5. SUBMITTAL PROCEDURES

- A. DESIGN-BUILDER shall prepare, review, approve, and transmit all required submittals and any necessary re-submittals.
- B. DESIGN-BUILDER shall provide a complete review by their Engineer of Record (EOR) of all submittals, prior to transmitting the submittal to LAWA. DESIGN-BUILDER shall provide a stamp of "Approval" from the EOR - as well any conditions of the approval - on the cover sheet of each submittal. The "Approval" from the EOR shall clearly demonstrate that the submittal has been confirmed to be in conformance with the contract documents.
- C. DESIGN-BUILDER shall further provide an independent review to ensure that the submittal is clear, accurate, organized, complete, and in conformance with the contract. This review is particularly important for submittals that were prepared by the EOR (such as design-package submittals).
- D. DESIGN-BUILDER shall coordinate preparation and processing of submittals with performance of construction activities (purchasing, fabrication, testing, delivery, installation, quality-control, predecessor & successor activities, etc.).
- E. DESIGN-BUILDER shall identify each submittal as an "Action" Submittal or "Informational" submittal.
- F. DESIGN-BUILDER shall submit all shop drawings, product data and samples in accordance

with the contract documents and approved schedule. Time for review shall commence on LAWA's receipt of the complete submittal package.

1. LAWA review period shall be twenty one (21) calendar days unless otherwise modified by the contract documents. Allow additional time if processing must be delayed to allow for coordination with subsequent submittals. LAWA will advise DESIGN-BUILDER when a submittal being processed must be delayed for coordination. Delaying submittal to facilitate coordination between submittals shall not constitute a delay of the work nor shall it be the basis for an extension of time or compensation.
 2. If resubmittal is necessary, process it in the same manner as original submittal and clearly identify as a resubmittal. For resubmittal, the DESIGN-BUILDER shall reference the original submittal.
 3. Number of days for processing each resubmittal shall be the same duration as the original review period for submittals.
 4. No extension of the contract time will be authorized because of the DESIGN-BUILDER's failure to transmit submittals enough in advance of the Work to permit processing.
- G. DESIGN-BUILDER shall place a permanent label or title block on each submittal for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Include the following information on label for processing and recording action taken:
 - a. Project name
 - b. Date
 - c. Terminal or project site (if applicable)
 - d. Name and address of LAWA project manager
 - e. Name and address of DESIGN-BUILDER
 - f. Name and address of subcontractor
 - g. Name and address of supplier
 - h. Name and address of manufacturer/fabricator
 - i. Unique identifier (Submittal #), including revision number.
 - j. Number and title of appropriate specification Section
 - k. Drawing number and detail references, as appropriate
 - l. Other necessary identification
 - m. Response to comments and/or revisions from previous submittals
 - n. Specifically identify, by itemizing in a list on the transmittal, any deviations from the contract documents
 - o. Identify a list of other related submittals that require coordination.
 - p. DESIGN-BUILDER's signature
- E. DESIGN-BUILDER shall clearly identify all deviations from the contract documents by either highlight, encircle, and/or itemize deviations on submittals.
- F. DESIGN-BUILDER shall indicate if they are providing third-party shop-inspection for each

submittal, and/or if they are requesting shop-inspection to be provided by LAWA. LAWA reserves the right to perform shop-inspection at their own discretion, and will make this determination for each product based on the location of fabrication, the complexity and sensitivity of the fabrication process, the criticality of the product, and other factors as needed.

- G. When required, updated submittals shall be provided by the DESIGN-BUILDER in the same manner as the original submittal, but with a sequential revision number. original submittals shall be considered Revision 0.
- H. DESIGN-BUILDER shall furnish copies of final submittals, including responses from LAWA and the EOR, to manufacturers, subcontractors, suppliers, fabricators, installers, AHJ and others as necessary for performance of construction activities.
- I. DESIGN-BUILDER shall use only the final version of submittals for construction, including the complete responses from LAWA and the EOR.
- J. Substitution requests are not allowed in the form of submittals. Review and acceptance of a submittal does not constitute approval of a substitution. See PR-10 for additional information regarding substitution requests.

6. SUBMITTAL TYPES

A. Product Data

- 1. DESIGN-BUILDER shall collect product data into a submittal package for each element of construction or system. Product data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where product data must be specially prepared because standard printed data is not suitable for use, DESIGN-BUILDER shall submit as "Shop Drawings."
- 2. DESIGN-BUILDER shall clearly mark each copy to indicate the applicable choices and options to be provided, and demonstrate that the proposed selections are in conformance with the contract. This includes, but is not limited to, model number, type, size, color, quantity, supplemental options and/or accessories, etc.
- 3. DESIGN-BUILDER shall clearly markup product data sheets to delete information that is not applicable to the work, and highlight the applicable information only.
- 4. LAWA will return product data sheets that are submitted with extraneous information not deleted and/or modified to the DESIGN-BUILDER without review.
- 5. DESIGN-BUILDER shall include the following information:
 - a. Manufacturer's written recommendations
 - b. Manufacturer's product specifications
 - c. Manufacturer's installation instructions
 - d. Manufacturer's catalog cuts
 - e. Standard color charts, if any
 - f. Wiring diagrams showing factory-installed wiring
 - g. Printed performance curves
 - h. Operational range diagrams

- i. Operations and Maintenance (O&M) manuals
- j. Compliance with recognized trade association standards and/or testing standards
- k. Testing and/or quality control measures for the product
- l. Notation of dimensions verified by field measurement
- m. Notation of location and/or coordination requirements

B. Shop Drawings

1. Shop drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data which are prepared by the DESIGN-BUILDER or any their subcontractors, manufacturers, suppliers, or distributors and which illustrates some portion of the work.
2. All shop drawings shall include plans, profiles, sections and details that clearly demonstrate the size, orientation, dimensions, etc. of all components; the arrangement and construction of all connections and joints; all holes, straps, and other fittings required for attaching work; and other pertinent details. When required, engineering computations prepared by a registered engineer, licensed by the State of California, Board of Professional Engineers and Land Surveyors, shall be submitted.
3. Shop drawing submittals shall include a list of drawings submitted, and a list of the sheets and/or specification sections related to the items.
4. DESIGN-BUILDER may proceed with fabrication at their own risk at any time in order to maintain project schedule. Any fabrication or other work performed in advance of the receipt of accepted submittals shall be entirely at the DESIGN-BUILDER's risk and expense. Any duplicative and/or corrective actions resulting from such work shall be performed at no cost to LAWA; no additional time nor compensation shall be granted.
5. Preparation: Include the following information, as applicable:
 - a. Dimensions
 - b. Identification of products
 - c. Fabrication and installation drawings
 - d. Roughing-in and setting diagrams
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring
 - f. Shopwork manufacturing instructions
 - g. Templates and patterns
 - h. Schedules
 - i. Design calculations
 - j. Compliance with specified standards
 - k. Notation of location requirements
 - l. Notation of dimensions established by field measurement
 - m. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring

- C. Samples: Comply with the contract documents as follows and prepare physical units of materials or products, including the following:
1. Submit full-size units or samples of size indicated, prepared from the same material to be used for the work, cured, and finished in manner specified, and physically identical with the product proposed for use, and that show full range of color variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; cables showing color; color range sets; and components used for independent testing and inspection.
 2. Preparation: Mount, display, or package samples in manner specified to facilitate review of qualities indicated. Prepare samples to match LAWA's sample where so indicated. Attach label on unexposed side that includes the following:
 - a. Generic description of sample.
 - b. Product name or name of manufacturer.
 - c. Sample source.
 3. Submit samples for review of kind and color for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed. LAWA shall have twenty one (21) days to review a sample. If the sample is rejected, LAWA shall have the same review period as the original sample. It is the DESIGN-BUILDER's responsibility to submit the required samples in a timely manner such that the re-approval, purchase, and delivery of the material do not delay the contract.
 - a. If variation in color or other characteristic is inherent in the product represented by a sample, submit at least three sets of samples that show the range of variations.
 - b. Refer to individual specification sections for requirements for samples that illustrate workmanship, fabrication techniques, and details of assembly, connections, operation, and similar construction characteristics.
 - c. Samples shall be identified per these project requirements and the contract documents.
 4. Number of samples: Submit seven (7) sets of samples. LAWA will retain five (5) sample sets; two will be returned to the DESIGN-BUILDER.
 - a. Submit a single sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 5. Systems Submittals: Identify submittals for systems on the transmittal and act upon the system singularly as a combined submittal. If resubmission is required, resubmit entire system submittal.
 6. Disposition: Maintain sets of approved samples at project site, available for quality control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual specification sections. Such samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the work, or otherwise designated as the LAWA's property, are the property of the DESIGN-BUILDER.

- D. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.
- E. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements and, where required, is authorized for this specific project.
- F. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.
- G. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.
- H. Material Test Reports: Prepare reports written by a qualified testing firm /agency approved by LAWA, on LAWA's standard testing form, indicating and interpreting test results of material for compliance with requirements.
- I. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, approved by LAWA, on testing agency's standard form, indicating, and interpreting results of tests performed before installation of product, for compliance with performance requirements.
- J. Compatibility Test Reports: Prepare reports written by a qualified testing agency approved by LAWA, on testing agency's standard form, indicating, and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- K. Field Test Reports: Prepare reports written by a qualified testing firm /agency approved by LAWA, on LAWA's standard testing form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements.
- L. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with contract requirements. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- M. Final Test Results: Prepare written reports indicating current product produced by manufacturer complies with requirements. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- N. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - 1. Name of evaluation organization
 - 2. Date of evaluation
 - 3. Time period when report is in effect
 - 4. Product and manufacturers' names
 - 5. Description of product
 - 6. Test procedures and results
 - 7. Limitations of use
- O. Design Data: Prepare written and graphic information, including, but not limited to,

performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions, other performance and design criteria, and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

- P. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
1. Sequence of installation or erection
 2. Required installation tolerances
 3. Required adjustments
 4. Recommendations for cleaning and protection
- Q. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
1. Name, address, and telephone number of factory authorized service representative making report.
 2. Statement that products at project site comply with requirements.
 3. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 4. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 5. Statement whether conditions, products, and installation will affect warranty.
 6. Other required items indicated in individual specification sections.

7. **LAWA'S ACTION**

- A. LAWA will not review submittals that do meet the requirements herein. If received, LAWA will return those submittals to the DESIGN-BUILDER without action.
- B. LAWA's review of submittals is only of general conformance with the design concept of the project, and general compliance with the contract documents. LAWA's review shall not relieve the DESIGN-BUILDER of the full responsibility for providing materials, equipment, and Work required by the contract; the proper fitting and construction of the Work; the accuracy and completeness of the submittals; selecting fabrication processes and techniques of construction; and performing the Work in a safe manner.
- C. LAWA will review each properly executed submittal, make marks to indicate corrections or modifications required, and return them to the DESIGN-BUILDER. LAWA will mark each submittal as follows:
1. NO EXCEPTION TAKEN (A). No further review of submittal required. Fabrication, manufacture, or construction may proceed.
 2. Exceptions As Noted (B). Update submittal and resubmit. Fabrication, manufacture, or construction may proceed, provided submittal complies with LAWA's notations and contract documents. If the DESIGN-BUILDER cannot comply with the notations, make revisions and resubmit as described for submittals marked "C" action.

3. NO Exceptions taken, Resubmit with complete group submittal. Individual item as submitted appears to meet requirements of contract documents. Final determination will be based on complete submittal of group that interfaces together. Resubmittal required.
 4. REVISE AND RESUBMIT (C). Update submittal and resubmit. Fabrication, manufacture, or construction may NOT proceed; submittal did not demonstrate full extent of all conditions, details, and coordination with other surrounding work and therefore requires additional information and record as noted. Do not fabricate, manufacture, or construct specific areas requiring additional information prior to re-submittal.
 5. REJECTED/RESUBMITTAL REQUIRED (D). Submittal does not comply with the design intent of the contract documents. Make revisions and resubmit.
 6. INFORMATION RECEIVED (E). No further action is required. This submittal is classified as "Informational", and will not be reviewed by LAWA. The DESIGN-BUILDER's Designer of Record (DOR) is responsible for validating conformance to the contract documents.
- D. Submittals not required by the contract documents will not be reviewed and returned to the DESIGN-BUILDER.

8. COORDINATION DRAWINGS

- A. DESIGN-BUILDER shall produce coordination drawings in collaboration with their subcontractors to show the inter-relationships, constraints and sequencing of work by the various trades.
- B. DESIGN-BUILDER shall submit one (1) electronic copy of all submittals approved by the Authority having Jurisdiction other than LAWA.
- C. DESIGN-BUILDER shall submit one (1) electronic copy of all trade-coordination drawings developed by the DESIGN-BUILDER and/or their subcontractors.

9. OTHER SUBMITTALS

All other submittals not specifically defined in this section shall be in compliance with the contract documents and requirements of this section for submittals.

END OF PR-09 SUBMITTAL PROCEDURES

PR-10 PRODUCTS, MATERIAL, AND EQUIPMENT SUBSTITUTIONS

1. GENERAL

This Section includes administrative and procedural requirements governing DESIGN-BUILDER's selection of products, materials, and equipment for use in the project.

2. REQUIREMENTS

- A. Request for changes in products, materials, equipment, and methods of construction required by contract documents proposed by DESIGN-BUILDER after award of the contract are considered "substitutions." All such substitution requests shall be submitted to LAWA no later than forty five (45) days prior to procurement/order. Refer to this section for the procedures to request substitution. Product, material, and equipment substitution form will be provided to the successful bidder at the pre-construction meeting. The following are NOT considered to be requests for substitutions:
 1. Substitutions requested during the bid period, and accepted by addendum into the contract documents prior to submission of bids.
 2. Revisions to contract documents requested by LAWA.
 3. Specified options of products and construction methods included in the contract documents.
 4. DESIGN-BUILDER's determination of, and compliance with, governing regulations and orders Issued by governing authorities.
- B. Available products, materials, equipment, and methods of construction that may be incorporated in work are indicated and specified in the contract documents. Use of catalog numbers, and specific requirements set forth in the drawings and specifications, are not intended to preclude use of other acceptable manufacturer's products or procedures which may be equivalent, but are given the purpose of establishing standard of quality for materials, construction, and workmanship.
- C. Equivalent products of manufacturers named as acceptable manufacturers may be submitted for approval. Equivalent products of manufacturers not named as acceptable manufacturers are subject to submittal requirements for substitutions specified in this section.
- D. Determination of equivalent products, materials, equipment, and method of construction equal in quality and maintainability, functionally and aesthetically equal to the product specified as the basis for design is LAWA's sole judgement.
- E. In agreeing to the terms and conditions of the contract, DESIGN-BUILDER has accepted the responsibility to schedule and verify that the specified products will be available when needed to comply with the accepted construction schedule, and to place orders for all required materials in a timely manner to meet the accepted construction schedule, without delay in the work.

Exception: When product numbers or models specified have been discontinued or changed by the specified manufacturer(s) prior to issuance of NTP or signing of the agreement.
- F. It is the intent of the contract documents that products incorporated into the project comply with the contract documents. These products shall be:

1. New and undamaged.
 2. Best of their respective kind.
 3. Furnished in a timely manner, in ample quantities to facilitate proper and timely execution of the work.
 4. From one manufacturer for each specific purpose, insofar as practicable.
 5. Complete with all accessories, trim finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
 6. Wherever possible, similar types that have been produced and used successfully in similar situations on other projects or in LAWA facilities.
- G. Minimum quantities or quality levels: In every instance the quantity or quality level shown or specified is the minimum to be provided or performed.
1. Within specified tolerances, the actual installation may comply exactly with the minimum quantity or quality specified, or may exceed that minimum within reasonable limits.
 2. In complying with these requirements, indicated numeric values are minimum or maximum values, as noted, or appropriate for the context of the requirements.
 3. Refer instances of uncertainty through the RFI process to LAWA for a decision before proceeding.
- H. Compatibility of options: When DESIGN-BUILDER is given the option of selecting between two (2) or more products for use on the project, DESIGN-BUILDER shall verify that product selected will be compatible with the products previously selected, even if previously selected products were also options.
- I. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturers or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view.
1. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is inconspicuous.
 2. Equipment nameplates:
 - a. Provide a permanent nameplate on each item of service-connected or power-operated equipment.
 - b. Locate on an easily accessible surface that is inconspicuous in occupied spaces.
 - c. The nameplate shall contain the following information and other essential operating data:
 - 1) Name of product and manufacturer.
 - 2) Model and serial number.
 - 3) Capacity.
 - 4) Speed.
 - 5) Ratings.
 - d. For additional labeling instructions, refer to the technical specifications of the contract.
- J. Hazardous Material: Notify LAWA and request LAWA's written permission, before incorporating into the project any materials specified by the contract documents which

DESIGN-BUILDER knows or has reason to believe are contaminated by asbestos, radioactive waste, hazardous waste or any materials detrimental to human health and which do not or may not conform to all codes for health, safety, ADA or environmental regulations.

3. **DESIGN-BUILDER's OPTIONS**

- A. Product selection is governed by the contract documents and governing regulations.
 - 1. Where catalog numbers and specific brands or trade names are not followed by the designation "or equal" or "or approved equal" in conjunction with material or equipment required by the Specifications, no substitutions will be approved.
 - 2. For products specified only by reference standards, select any product meeting standards, by any manufacturer. The product specifications may be subject to review.
 - 3. Where more than one manufacturer's product is specified, the first-named product is the basis for the design used in the Work and the use of alternative-name manufacturer's products or substitutes may require modifications in that design. If such alternatives are proposed by DESIGN-BUILDER and are approved by LAWA, DESIGN-BUILDER shall assume all costs required to make necessary revisions and modifications to the design, including additional costs to LAWA for evaluation of revisions and modifications of the design resulting from the substitutions submitted by DESIGN-BUILDER to LAWA.
 - 4. For products specified by naming one or more products, but indicating the option of selecting equivalent products by stating "or equal," "equal to," "or approved equal," "equivalent to" before or after a specified product and a product substitution is needed, submit a request, as required for a substitution, for that product.

4. **SUBSTITUTION REQUESTS**

- A. DESIGN-BUILDER shall explicitly identify any deviations from LAWA's requirements, the latest drawings or specifications, or any other contract documents, and shall submit a "Request for Substitution Submittal" to LAWA for review and concurrence with the proposed substitution(s). This includes, but is not limited to, alternative products, systems, materials, equipment, or methods of construction.
- B. The submittal shall contain, as appropriate, detailed product data sheets for the specified items in the substitution. Samples and shop drawings shall also be submitted of the substitution as applicable. The submittal shall contain all the data required to be submitted for acceptance of the originally specified item or process.
- C. DESIGN-BUILDER shall provide a detailed explanation and justification for each proposed substitution, including a comparative analysis of the alternatives considered (including the baseline requirement and/or contract document) with respect to cost, schedule, quality, risk, safety, life expectancy, durability, reliability, ability to be upgraded, ease of interacting with other systems or components, availability of replacement parts, established history of use in similar environments, warranty, performance, maintenance, and operational impacts.
- D. At the request of LAWA, the following information may be requested as part of the substitution Submittal:
 - 1. Utility connections including electrical, plumbing, HVAC, fire protection and controls.
 - 2. Projected energy consumption for one year.

3. Name of the local organization is certified to maintain the item.
 4. Performance characteristics and production rates.
 5. A list of any license fees or royalties that must be paid.
 6. A list of all variations for the item or method specified.
 7. A list of at least three other projects of similar nature to this contract where the products or methods have been in use for at least one year including telephone number and name of the person to contact at these other projects.
 8. An analysis of the effect of the substitution on the schedule and contract cost and on the overall project as it relates to adjoining work.
- E. For any proposed substitution, DESIGN-BUILDER shall accept sole responsibility to ensure that;
1. All minimum quantity and quality levels are achieved,
 2. All necessary products, materials, equipment, and labor are readily available,
 3. All aspects of the substitution are fully compatible with all other products/components,
 4. All necessary permits and/or approvals are obtained by the DESIGN-BUILDER from the AHJ,
 5. All necessary testing and quality-control inspections are provided by the DESIGN-BUILDER,
 6. All related documents (drawings, specifications, submittals, BIM model, etc.) are updated and maintained based on the substitution,
 7. All deviations from LAWA requirements and/or other contract requirements are clearly specified in the request, and
 8. All work can be completed in accordance with all other contract requirements with no additional time nor compensation
- F. DESIGN-BUILDER shall maintain a log of all proposed substitutions, and provide the log to LAWA with each design package submittal (Conceptual, 30%, 60%, 90%, 100%, Record).
- G. LAWA's approval, concurrence or acceptance of any design-package submittal, product submittal, or any submittal other an explicit "Request for Substitution Submittal," shall not be construed as approval for any proposed substitution. All substitution requests must be provided as separate submittals, complete with all information described herein.
- H. As a condition for submitting a request for substitution the DESIGN-BUILDER waives all rights to claim for extra cost or change in contract time other than those outlined in the request and approved by LAWA. The DESIGN-BUILDER, by submitting a request for substitution, also accepts all liability for cost and scheduling impact on other contractors or the city due to the substitution.

END OF PR-10 PRODUCTS, MATERIAL, AND EQUIPMENT SUBSTITUTIONS

PR-11 DESIGN MANAGEMENT**1. GENERAL**

This section includes administrative & procedural requirements for design management.

2. DESIGN DELIVERABLES

- A. DESIGN-BUILDER shall prepare, maintain and provide to LAWA all design packages throughout all stages of the project as described in PR-01. This includes, but is not limited to,
 - 1. Drawings
 - 2. Technical specifications
 - 3. Calculations and reports (narratives, calculations, code-requirements and strategy, alternatives analysis, design decisions, etc.)
 - 4. Model of existing and proposed conditions (PR-21)
 - 5. Cost estimates
 - 6. Schedules
- B. DESIGN-BUILDER shall provide a comprehensive design package for each individual project/task with each formal design submittal. Refer to Volume 2 of the ATMP Landside Improvement Project RFP Document for each task. The documents included in Volume 2 are criteria and scoping documents and are not designs warranted by LAWA.

3. PRECONSTRUCTION DELIVERABLES IN SUPPORT OF DESIGN

- A. DESIGN-BUILDER shall prepare, maintain and provide to LAWA all preconstruction deliverables in support of the design throughout all stages of the project as described in PR-01. This includes, but is not limited to,
 - 1. Site Investigations
 - 2. Phasing and logistics plans
 - a. See the Appendix for "PHASING AND LOGISTICS PLAN EXHIBITS" for graphic examples of the types of information including plan drawings/ diagrams required by LAWA.
 - 3. Work plans and procedures manuals
 - 4. Constructability reviews
 - 5. Long-Lead and Spare Parts Lists
- B. The primary purpose of Preconstruction Services is for the DESIGN-BUILDER to mitigate its risks of preparing inaccurate or incomplete schedules, phasing plans, work plans, and other tools for successfully planning & executing the Work.
- C. DESIGN-BUILDER shall provide a comprehensive preconstruction package for each project with each formal design submittal.

4. DESIGN SERVICES

- A. Specific design requirements may be provided through stakeholder outreach. In the event of any conflicts, the DESIGN-BUILDER shall ensure the highest level of quality is provided in the Project design.
- B. DESIGN-BUILDER shall prepare, maintain and provide all the deliverables at all the design stages described in PR-01. DESIGN-BUILDER shall provide updated drawings with each formal design submittal, and shall keep all drawings up to date as the work progresses.
 - 1. At each design submittal, the DESIGN-BUILDER shall provide both electronic and hard copies in formats and sizes acceptable to the AHJs. The electronic copies shall be provided in both .PDF and native formats (i.e. DWG, DWF, DGN, etc.).
- C. DESIGN-BUILDER shall prepare, maintain, and provide to LAWA all technical specifications as described in PR-01. DESIGN-BUILDER shall provide updated technical specifications with each formal design submittal, and shall keep all technical specifications up to date as the work progresses.
 - 1. DESIGN-BUILDER shall select and edit all technical specification sections for specific project requirements.
 - 2. DESIGN-BUILDER shall investigate and specify the use of locally available construction materials, techniques, and building equipment when practical and appropriate.
- D. DESIGN-BUILDER shall prepare, maintain and provide to LAWA all calculations and reports as described in PR-01. DESIGN-BUILDER shall provide updated calculations and reports with each formal design submittal, and shall keep all calculations and reports up to date as the work progresses.
- E. DESIGN-BUILDER shall prepare, and submit a Notice of Design Change as required by the permitting agency.
 - 1. DESIGN-BUILDER shall provide the Notice of Design Change complete with all affected drawings, specifications, calculations and reports, and other affected design documents, with a corresponding cover page, index and table of contents.
 - 2. DESIGN-BUILDER shall provide the Notice of Design Change to LAWA at the same time they are issued to permitting agencies, and shall provide a monthly summary of the Notice of Design Changes in each monthly report.

5. DESIGN QUALITY

- A. The major activities for implementing the DESIGN-BUILDER's design quality control program shall include as a minimum the following:
 - 1. Identification of project requirements via the design-build criteria and scoping packages included in Volume 2.
 - 2. Identification of project deliverables list and scope.
 - 3. A process for controlling adherence to standardized design procedures and development of specifications, by each responsible engineering discipline.
 - 4. Completion of conformance and compliance checklists by each responsible design/engineering discipline.
 - 5. Checking of design documents for accuracy and completeness.

6. Control of design documentation and format using configuration management plans and design procedures.
 7. Review of upcoming design milestone submittals, including inter-discipline and interface checking/management.
 8. Verification of design review comment resolution and incorporation into design documents.
- B. Each technical design discipline of the DESIGN-BUILDER shall provide objective evidence of checking of the design documents that it develops. The objective evidence, as a minimum, shall include the marked-up and signed checked copies of the final design drawings, models, calculations, and specifications at each design milestone, as applicable.

6. DESIGN REVIEWS

- A. General: The DESIGN-BUILDER shall adhere to the requirements contained herein for the design documents requiring the approval of LAWA for work within LAWA's jurisdiction. DESIGN-BUILDER shall also be responsible for adhering to the requirements of third party jurisdictional agencies having authorization for the approval of its design documents. At the conclusion of each required stage of design, the DESIGN-BUILDER is required to submit its work to LAWA for review, approval, and/or comments, or at a minimum, for informational purposes where LAWA has no approval authority. This should be defined in the permit plan.
- B. Responsibilities: The DESIGN-BUILDER is solely responsible for providing design submittals that are fully comprehensive and complete for the development phase. Incomplete submittals will be rejected and returned for additional work. Any delays or costs incurred resulting from submittals that are not complete to the appropriate level of development as defined by the authorities having jurisdiction, are the responsibility of the DESIGN-BUILDER. It is the responsibility of DESIGN-BUILDER to assure that submittal procedural requirements are met for all design documents and that they meet the requirements of the authorities having jurisdiction.
- C. Procedures: The DESIGN-BUILDER shall submit the required and appropriately developed design document deliverables to the AHJ and LAWA in the prescribed quantities and utilizing the required media. The DESIGN-BUILDER will reconcile comments and provide written responses to all design document comments. The DESIGN-BUILDER will then incorporate the required changes to the design documents, if any, in the next submittal. If the submittal is determined to be unacceptable by AHJ or LAWA, the DESIGN-BUILDER will be notified accordingly. Delays incurred by rejection of the submittal are the responsibility of the DESIGN-BUILDER and no allowances will be made.

7. DRAWING, DATA AND CONFIGURATION MANAGEMENT

- A. DESIGN-BUILDER shall prepare & maintain all drawings in the most recent version of AutoCAD, and any additional CAD format required by the AHJs, and in accordance with the BIM execution plan and the project requirements (PR-21). This includes drawing organization, appearance, presentation, naming conventions, numbering conventions, layering and other CAD related standards.
- B. DESIGN-BUILDER shall prepare drawings for Third Party jurisdictional approval following the latest applicable standard for that agency.

- C. DESIGN-BUILDER shall prepare & maintain all BIM files in accordance with LAWA's latest BIM standards.
- D. DESIGN-BUILDER shall prepare & implement a BIM execution plan and a model of existing and proposed conditions in accordance with the contract (PR-21).
- E. The DESIGN-BUILDER shall develop configuration management and document control procedures, which once reviewed and accepted by LAWA, govern the DESIGN-BUILDER's work. The procedures include provisions and methods for document development and maintenance. The consultant shall adhere to these configuration management and document control procedures throughout the life of the contract.
- F. Any person developing design correspondence, calculations, drawings, specifications and/or reports is responsible for adhering to the approved configuration management and document control requirements and plans.
- G. The DESIGN-BUILDER shall designate a staff member (or members) to be responsible, at a minimum, for the following activities:
 - 1. Recommending documents to be controlled and the individuals, positions and interrelationships necessary for preparation, review, approval, issue, revision, and maintenance of such documents
 - 2. Reviewing documents for adequacy, completeness, and correctness before approval and issue
 - 3. Assisting and providing information to groups responsible for change control
 - 4. Implementing applicable controls of design, procurement, inspection, and testing documents
 - 5. Identifying documents with approval status such as matching the requirements of the contract with design deliverables
 - 6. Dispositioning design review comments
 - 7. Updating baseline documents
 - 8. Where applicable, the configuration management plan must be consistent with the BIM execution plan's (BxP's) stated configuration management requirements.
- H. DESIGN-BUILDERS formal configuration control of documents will begin prior to the preliminary design (60%) milestone.

4. STANDARDS AND CODES

- A. DESIGN-BUILDER shall comply with the following:
 - 1) Verify the applicability of all latest standards and codes that are referenced in their contract documents (drawings, technical specifications, calculations & reports, etc.).
 - 2) Provide a summary list of all standards and codes that are referenced in their contract documents.
 - 3) Be in possession of all standards and codes referenced in their contract documents.
 - 4) Be familiar with all standards and codes referenced in their contract documents, and shall provide excerpts and/or specific sections to LAWA upon request.
 - 5) When design standards which are developed by agencies or organizations independent

of LAWA (LADWP, DOT, CALTRANS, FAA, LABOE, etc.), the design standards are to be incorporated into the project design. All necessary information and details regarding these standards must be included in the design and construction documents in the required format, and may not be included by reference only.

- 6) When design standards are developed by LAWA (for instance standards included in the LAWA DCH (Design and Construction Handbook)) the design standards are to be incorporated into the project design. All necessary information and details regarding these standards must be included in the design and construction documents in the required format, and may not be included by reference only. Only Projects in the CTA, AOA, or on LAWA property; such as LAWA Employee Lot South shall comply with the LAWA DCH.

5. CHECKLISTS

DESIGN-BUILDER shall complete documentation in accordance with each applicable agency checklist. Checklists shall be completed prior to submittal to the agency and transmitted to all City and State Agencies as well as LAWA. The Appendix includes checklists provided from most (but not necessarily all AHJ's). DESIGN-BUILDER to obtain checklists from any other agency that may have jurisdiction.

END OF PR-11 DESIGN MANAGEMENT

PR-12 THIRD PARTY COORDINATION

The DESIGN-BUILDER shall provide coordination of the work with third parties per the requirements of the contract documents and as indicated herein.

1. GENERAL REQUIREMENTS

- A. Except as otherwise required by the contract documents, the DESIGN-BUILDER shall coordinate directly with each third party to identify, collaborate and resolve all items and issues that impact the project in a timely manner. The DESIGN-BUILDER shall invite LAWA to participate in third party coordination. This includes, but is not limited to, the responsibility to setup meetings, obtain permits and approvals from AHJs, design, purchase / acquisition of equipment and materials, construction and inspection. The DESIGN-BUILDER shall copy the LAWA Third Party team on all correspondence with third parties. LAWA and/or the third party (agency or utility) will be inspecting and/or providing oversight to the DESIGN-BUILDER's construction and compliance with their QA/QC requirements, accepted implementation plans and testing. The third party agency inspection / oversight is not intended to replace the DESIGN-BUILDER's primary role for QC and QA of the work, but to oversee compliance to requirements of the contract documents and third party agreements.
- B. Additional information and requirements on utility relocations, protection, and new services is included in PR-07, "Utilities" and Construction General Conditions.
- C. The DESIGN-BUILDER shall coordinate and resolve all third-party items and issues throughout the term, whether or not:
- D. LAWA has had previous discussion with a third party;
- E. LAWA has executed an agreement and/or a memorandum of understanding with a third party; or
- F. LAWA has or has not identified a third party.

2. THIRD PARTY COORDINATION WORK PLAN

- A. The DESIGN-BUILDER's third party coordination work plan shall include, but not be limited to, the following:
 - 1. A third party coordination manager who shall be assigned exclusively to the project and shall function as the primary contact between the DESIGN-BUILDER and the third parties.
 - 2. A third-party coordination manager whose role and responsibility shall remain active and in force until final completion.
 - 3. Identification of each third party, by contact, type, schedule, and resolution status.
 - 4. Identification of the party responsible for the design, construction, inspection, acceptance and cost of work in accordance with the contract documents.
 - 5. Notification to LAWA of requested betterments.
 - 6. Third-Party-specific coordination meetings from financial close to final completion including the DESIGN-BUILDER and the third party;
 - 7. Creation, maintenance and update on a monthly basis of a report of third party coordination activities.

8. Establishment of the DESIGN-BUILDER's design and construction procedures, processes and schedule for third party work and methodology for ensuring that all third-party work is completed in accordance with the Third-Party coordination work plan.
9. Detailed monthly third-party design submittal schedule and forecast for review with LAWA third party team and third-party agencies.
10. Participation and coordination with LAWA third party team in the bi-weekly City of Los Angeles Single Point of Contact Meeting.

3. PROJECT EXECUTION PLAN

In connection with any third party agreement, the DESIGN-BUILDER shall prepare a project execution plan in accordance with the requirements of the contract.

4. THIRD PARTY AND AGENCY COORDINATION CONTACTS

Contact between City and State agencies, LA Metro and the DESIGN-BUILDER shall be per the procedures set forth in the cooperation agreements and/or Memorandum of Understanding. For third parties not covered by these agreements, the DESIGN-BUILDER is responsible for all coordination activities including identifying and maintaining updated contacts lists.

END OF PR-12 THIRD PARTY COORDINATION

PR-13 QUALITY ASSURANCE

1 GENERAL

- A. LAWA is responsible for establishing and implementing a Quality Assurance Program (QA Program) that will provide adequate confidence that the phasing, materials, components and facilities provided or constructed by the Design-Builder conform to the requirements of the contract documents and the appropriate codes, procedures and standards. Quality Assurance activities will be performed by or for LAWA to verify and document implementation and performance of the Design-Builder's Quality Control Program.
- B. Quality assurance is, in essence, an oversight and verification mechanism that ensures quality control programs produce the desired result, i.e., finished products meet specified quality standards. Design-Builder shall provide quality control of its own work in accordance with contract requirements.

2 PRECONSTRUCTION QUALITY ASSURANCE

- A. During the Design & Preconstruction Phase of the project and in addition to specific design-related activities, LAWA will perform Quality Assurance reviews and audits of Preconstruction activities performed by the Design-Builder.
- B. Preconstruction activities include those elements of the Work performed prior to the start of construction or a phase of construction that supports the design effort and prepares the Design-Build Team for the Construction Phase. Preconstruction activities include, but are not limited to:
 - 1. Site Investigations and Surveys
 - 2. Utility Shutdown Planning
 - 3. Construction Logistics Planning
 - 4. Work Breakdown Structure (WBS) Development
 - 5. Cost Estimating and Scheduling
 - 6. Constructability and Maintainability Review
 - 7. Value Engineering
 - 8. Temporary Utilities & Facilities Planning
 - 9. Early Work Package Development
- C. Quality Assurance for Preconstruction activities encompass those reviews and audits required to assure LAWA that the Design-Builder adequately coordinates, communicates and maintains compliance with its Design & Preconstruction Quality Control Plan. In addition to reviews and audits, these assurances are achieved through such program management processes as training, document control, change control, plan validations & verifications, logistics reviews, engineering reviews, constructability and maintainability reviews, etc. that affects the quality of the construction planning process and documents.
- D. LAWA will periodically perform reviews and audits of various Preconstruction activities

to assure the Design-Builder maintains compliance with the approved Design and Preconstruction Quality Control Plan and the Contract Documents.

3 CONSTRUCTION QUALITY ASSURANCE

- A. Through Construction QA inspections, submittal reviews and audits, LAWA provides quality assurance via QC Plan approval, material receipt and installation inspections, supplemental material tests, statistical analyses of the Design-Builder's quality control program, review of its construction operations and of its procedures.
- B. The Work is subject to inspection and approval by LAWA. The Design-Builder shall notify LAWA before noon of the working day before inspection is required. LAWA and any authorized representatives shall at all times have access to the Work during its construction at shops and yards and while in storage, as well as to the Work site. The Design-Builder shall provide every reasonable facility for ascertaining that the materials and workmanship are in accordance with these Specifications. Inspection of the Work shall not relieve the Design-Builder of the obligation to fulfill all requirements of the Contract.
- C. LAWA is authorized to enforce compliance with the Contract Documents and to determine the acceptability of materials and the quality of Work. LAWA is authorized to sample and test all materials to be incorporated into the Work. LAWA may delegate the authority to sample materials for construction and request the Los Angeles Department of General Services, Standards Laboratory, or an approved private testing laboratory to perform any necessary tests.
- D. Unless otherwise authorized, Work shall be performed only in the presence of LAWA and under the general observation of LAWA to ensure compliance with the requirements of the Contract Documents and as approved by LAWA. Any Work done without proper inspection will be subject to rejection. Such inspection may include mill, plant, and shop or field inspection, as required. LAWA shall be permitted access to all parts of the Work, including plants where materials or items are manufactured or fabricated. All materials and fabricated items furnished by the Design-Builder shall be subject to inspection, and no materials or fabricated items shall be used in the Work until they have been inspected and accepted by LAWA. The presence of LAWA shall not relieve the Design-Builder of the responsibility for the proper execution of the Work in accordance with all requirements of the Contract Documents.
- E. No Work shall be backfilled, buried, cast in concrete, hidden or otherwise covered until it has been inspected by LAWA and other Agencies for which a permit is required. Should the Design-Builder attempt to cover or conceal any item of Work prior to its approval and acceptance, LAWA may cause the activity to be stopped and require said Work to be exposed, if determined necessary by LAWA, so that proper inspection may take place. All costs for exposing such Work, including premium costs resulting from alternate means of inspection, time delays, and impacts resulting on other portions of the Work, shall be borne by the Design-Builder. All costs of such delays, including its effect upon other portions of the Work, shall be borne by the Design-Builder. Where Work that was done without inspection cannot be uncovered, such as in concrete cast over reinforcing steel, all such Work shall be subject to demolition, removal, and reconstruction under proper inspection, and no additional payment will be allowed, therefore.

- F. General inspection by LAWA personnel will be provided at no additional cost to the Design-Builder, except as specified elsewhere in the Contract Documents.
- G. Special inspections as required under Section 1700 of the Los Angeles Building Code will be provided by LAWA at no cost to the Design-Builder, except as provided elsewhere in the Contract Documents.

4 FAULTY AND UNAUTHORIZED WORK

- A. Unauthorized Work shall be remedied or removed and replaced by the Design-Builder in an acceptable manner, and no added compensation will be allowed for such removal, replacement, or remedial Work. If the Design-Builder chooses to propose repair of non-conforming Work, a repair procedure is required for non-conforming Work and shall be submitted to LAWA for review and approval prior to any corrective action taking place. Work done beyond the areas indicated or established by LAWA, or any "work" done without written authority from LAWA will be considered to be unauthorized work. Work shall be corrected, removed or replaced at the Design-Builder's expense. If the Design-Builder fails to replace any defective or damaged Work or material after reasonable notice, LAWA may cause such Work or materials to be remedied, removed, or replaced, and the cost thereof to be deducted from any moneys due or which may become due to the Design-Builder.
- B. Except as set forth in this Subsection or elsewhere in these Specifications, all non-conforming Work and materials, in place or not, shall be removed immediately from the Site or corrected to conform to all requirements of the Contract Documents, by the Design-Builder, at the sole expense of the Design-Builder. If the Design-Builder chooses to propose repair of non-conforming Work, a repair procedure is required for non-conforming work and shall be submitted to LAWA for review and approval prior to any corrective action taking place. If the Design-Builder fails to remove, replace, or correct any non-conforming Work or materials within seventy-two (72) hours of discovery, LAWA may cause such Work or materials to be removed and replaced. Such removal and replacement shall be at the sole expense of the Design-Builder and all such cost shall be deducted from any money that is due or may become due to the Design-Builder. Otherwise, the Design-Builder shall pay LAWA if there remains an insufficient amount or no amount to be paid by LAWA to the Design-Builder.
- C. Any delays or impacts arising on the Work as a result of construction or delivery of non-conforming Work or materials shall be at the Design-Builder's sole expense, regardless of whether the Work ultimately becomes the subject of a Change Order, and no time extension shall be allowed to the Design-Builder.
- D. Failure of LAWA to notify the Design-Builder of any non-conforming Work shall not constitute acceptance of any non-conforming Work. The Design-Builder's obligation to remove, replace or correct any non-conforming Work, whenever discovered, shall continue to the end of the warranty period specified in the Contract Documents. LAWA reserves and retains all rights and remedies at law against the Design-Builder and its Surety for correction of any and all latent defects discovered after the warranty period.
- E. In case of a dispute between the Design-Builder and LAWA, the latter is authorized to reject materials or suspend the subsequent Work at the location until any questions at issue can be referred to and decided by LAWA.

5 MATERIALS AND WORKMANSHIP

- A. Work that has been rejected by LAWA shall be remedied or removed and replaced by the Design-Builder in an acceptable manner, and no added compensation will be allowed for such removal, replacement, or remedial Work. If the Design-Builder chooses to propose repair of non-conforming Work, a repair procedure is required for non-conforming Work and shall be submitted to LAWA for review and approval prior to any corrective action taking place. Work done beyond the areas indicated or established by LAWA, or any "work" done without written authority will be considered to be unauthorized work. Work shall be corrected, removed or replaced at the Design-Builder's expense. Upon failure of the Design-Builder to comply with an order under this Subsection, LAWA will cause rejected or unauthorized work to be remedied, removed, or replaced, and the cost to do so shall be deducted from any money due or to become due to the Design-Builder.
- B. If the Design-Builder shall join Work with that of any other Design-Builder, or with any Work in place, and if such joint is not made in a skillful manner, or is not otherwise in conformity with provisions of the Contract, then such joint or Work shall be deemed and construed to be faulty workmanship and such materials shall be deemed and construed to be defective materials.
- C. Any delays or impacts arising on the Work as a result of construction or delivery of non-conforming Work or materials shall be at the Design-Builder's sole expense, regardless of whether the Work ultimately becomes the subject of a Change Order, and no time extension shall be allowed to the Design-Builder.
- D. Workers and installers shall be skilled, trained and experienced in the necessary crafts and shall be completely familiar with the specific requirements and methods needed for proper performance and completion of the Work.
- E. Fabricators shall be licensed by the City of Los Angeles. All structural welding within City jurisdiction shall be performed by welders certified and licensed by the City of Los Angeles, Department of Building and Safety.
- F. No product containing asbestos shall be used for any purpose. When removing asbestos products, the Design-Builder shall comply with the requirements of Title 8, CCR, General Industry Safety Orders and Construction Safety Orders.
- G. All references to specifications of national organizations and trade associations related to building industry such as, but not limited to, American Society for Testing and Materials, American Institute of Steel Construction, American Concrete Institute, Prestressed Concrete Institute, Post-Tensioning Institute, and the National Board of Fire Underwriters. Refer to the latest revision of such specifications except as otherwise noted in the Contract Documents.
- H. All materials, parts, and equipment furnished by the Design-Builder in the Work shall be new, high grade, and free from defects with the exception of recycled materials. Used or secondhand materials, parts, and equipment may be used only, if so specified in the contract documents.
- I. The quality of materials and workmanship shall be subject to approval by LAWA. Materials and workmanship of quality not conforming to the requirements of the Contract Documents shall be considered defective and will be subject to rejection. Defective Work or material, whether in place or not, shall be removed immediately from the Work site by the Design-Builder, at its expenses, when so directed by LAWA.
- J. If the Design-Builder fails to replace any defective or damaged Work or material after reasonable notice, LAWA may cause such Work or materials to be replaced. The

replacement expense will be deducted from the amount to be paid to the Design-Builder.

- K. Refer to the "Faulty and Unauthorized Work" section elsewhere in this PR for additional requirements.

6 SHOP AND SOURCE INSPECTION REQUIREMENTS

- A. All materials, products, equipment and fabricated articles required by the Contract Documents and furnished by the Design-Builder are subject to the quality requirements provided in the Contract Documents.
- B. The Design-Builder shall coordinate and provide all inspections and testing as necessary and as required in the Project Requirement for "Design-Builder Quality Control Program", to ensure all materials, products, equipment and/or other items meet the Contract Document requirements for quality and workmanship.
- C. All permanent materials and fabricated items shall be manufactured or fabricated from Shop Drawings that have been reviewed for conformance to the Contract Documents and approved by LAWA. The Design-Builder shall ensure that legible copies of the approved submittals, shop drawings, approved mix designs, and the corresponding Contract Specifications are provided to its fabricators or suppliers, and that said documents are available to LAWA and the personnel performing Quality Assurance and/or Quality Control inspections and testing. Fabrication or manufacturing of materials or items cannot and will not take place without the specified documents.
- D. The Design-Builder shall produce and submit to LAWA a schedule of all materials, equipment, and other items, as required by the Contract Documents, that are intended to be produced or manufactured at offsite fabrication or manufacturing facilities. This list shall include at a minimum:
 - 1. Specific Item (i.e. material, equipment, or custom fabricated item).
 - 2. Facility Location with Contact Information.
 - 3. Anticipated start of Fabrication or manufacture.
 - 4. QC staff assigned.
- E. The Design-Builder shall provide LAWA with as much notification, but no less than one (1) week notice of the start of fabrications or manufacture of materials, equipment or other items, as required by the Contract Documents.
- F. Any material or fabricated item which does not meet the quality requirements under the Contract is subject to rejection by LAWA and may be required to be removed from the Site by the Design-Builder at the Design-Builder's sole expense.
- G. All materials, products, equipment or other custom fabricated or manufactured items are subject to inspection by LAWA at the source of production. The Design-Builder shall provide access to the site of material fabrication for supplemental inspection or observation if required by LAWA.
- H. The Quality of materials, equipment, products and other fabricated items provided by the Design-Builder and produced at offsite fabrication or manufacturing facilities, as required by the Contract, is the sole responsibility of the Design-Builder. Inspection or

observation by LAWA does not relieve the Design-Builder from complying with the Contract Documents.

7 PROTECTION OF WORK AND MATERIALS

- A. The Design-Builder shall provide and maintain storage facilities and employ such measures as will preserve the specified quality of materials to be used in the Work. Stored materials shall be reasonably accessible for inspection. The Design-Builder shall also adequately protect new and existing Work and all items of equipment for the duration of the Contract.
- B. The Design-Builder shall not, without LAWA's consent, assign, sell, mortgage, hypothecate, or remove equipment or materials intended for permanent use on the Project which have been installed or delivered and which may be necessary for the completion of the Work.
- C. Access to Work and Materials. The Design-Builder shall provide access at any time to the Work and materials wherever same are stored, being fabricated, erected or installed, when requested to do so by a representative of LAWA or other regulatory subdivisions having jurisdiction.
- D. Facilities and Labor. The Design-Builder shall provide sufficient, safe, and proper facilities and labor necessary to move, take and prepare samples for testing of materials, and shall provide the same for purposes of additional testing when ordered to do so by any of LAWA's representatives.

8 TEST OF MATERIALS

- A. Before incorporation into the Work, the Design-Builder shall submit samples of materials, as required by the approved design with the necessary testing frequency to meet the Project plan and specification requirements, at no cost to LAWA. The Design-Builder, at its expense, shall deliver the materials for testing to the place and at the time designated by LAWA. Unless otherwise specified, all initial testing and reasonable amount of retesting will be performed under the direction of LAWA, and at no expense to the Design-Builder. If the Design-Builder is to provide and pay for testing, it will be so specified.
- B. The Design-Builder shall notify LAWA in writing, at least 15 days in advance, of its intention to use materials for which tests are specified, to allow sufficient time to perform the tests. The notice shall name the proposed supplier and source of material.
- C. If the notice of intent to use is sent before the materials are available for testing or inspection, or is sent so far in advance that the materials on hand at the time will not last but will be replaced by a new lot prior to use on the Work, it will be the Design-Builder's responsibility to re-notify LAWA when samples which are representative may be obtained.
- D. **Testing by LAWA**
 - 1. In addition to any other inspection or Quality Assurance provisions that may be specified, LAWA shall have the right to independently select, test, and analyze, at the expense of LAWA, additional test specimens of any or all of the materials to be

used. Whenever any portion of the Work fails to meet the requirements of the Contract Documents as shown by the results of independent testing or investigation by LAWA, all costs of such independent inspection and investigation, and all costs of removal, correction, and reconstruction or repair of any such Work shall be borne by the Design-Builder.

E. Testing by Approved Testing Laboratory

1. When the manufacturer, fabricator, or supplier provides the results of tests from samples taken at the mill, factory, or warehouse, LAWA will accept the test reports provided the following conditions are met:
 - The Testing Laboratory was approved by LAWA prior to performing the tests, and all necessary certifications were valid at the time the tests were performed.
 - The tests were performed in conformance with the Contract Documents for the specified material or item.
 - The reports are made in the form of an affidavit, as specified below.
 - Tests performed by an approved Testing Laboratory are subject to be monitored by LAWA.

F. Whenever the approved Testing Laboratory takes samples of materials other than at the Site, the deliveries to the Site of materials represented by such samples shall be identified as specified for the specific material. The results of such tests shall be reported to the LAWA's Materials Control Inspector in the form of affidavits attested to by the Testing Laboratory. Such affidavits shall furnish the following information with respect to the material sampled:

1. Manufacturer's name and brand.
2. Place of sampling.
3. Sufficient information to identify the lot, group, bin, or silo from which the samples were taken.
4. Amount of material in the lot sampled.
5. Statement that the material has passed the requirements.
6. Signature and title of the person creating the affidavit and the date of execution of the affidavit.

9 CERTIFICATION

- A. LAWA may waive the materials testing requirements of the Contract Documents and accept the manufacturer's written certificate of compliance that the materials to be supplied meet those requirements. Materials test data may be required by LAWA to be included with the submittal.
- B. A Certificate of Compliance in triplicate shall be furnished prior to the use of materials for which the Contract Documents require that such a certificate be furnished. LAWA may permit the use of certain materials or assemblies prior to the sampling and testing if accompanied by a Certificate of Compliance. The certificate shall be signed by the manufacturer of the material or the manufacturer of assembled materials and the

Design-Builder and shall state that the materials involved comply in all respects with the requirements of the specifications. A Certificate of Compliance shall be furnished with each lot of materials delivered to the Work, and the lot so certified shall be clearly identified on the certificate. The form of the Certificate of Compliance and its disposition shall be as directed by LAWA.

- C. Materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that material is used on the basis of a Certificate of Compliance shall not relieve the Design-Builder of responsibility for incorporating material in the Work which conforms to the requirements of the Contract Documents and such material not conforming to such requirements will be subject to rejection whether in place or not.
- D. LAWA reserves the right to refuse to permit the use of material notwithstanding the submittal of a Certificate of Compliance.

10 TRADE NAMES OR EQUALS

- A. The Design-Builder may supply any of the materials specified or offer an equivalent. LAWA will determine whether the material offered is equivalent to that specified. Adequate time shall be allowed for LAWA to make this determination.
- B. A listing of materials is not intended to be comprehensive, or in order of preference. The Design-Builder may offer any material, process, or equipment considered to be equivalent to that indicated. The substantiation of offers shall be submitted as provided in the Contract Documents.
- C. The Design-Builder shall, at its expense, furnish data concerning items offered by it as equivalent to those specified. The Design-Builder shall have the material tested as required by LAWA to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, and suitability are such that the item will fulfill its intended function.
- D. Test methods shall be subject to the approval of LAWA. Test results shall be reported promptly to LAWA that will evaluate the results and determine if the substitute item is equivalent. LAWA's findings shall be final. Installation and use of a substitute item shall not be made until approved by LAWA.
- E. If a substitute offered by the Design-Builder is not found to be equal to the specified material, the Design-Builder shall furnish and install the specified material.
- F. The specified Contract completion time shall not be affected by any circumstance developing from the provisions of this subsection.

11 WEIGHING AND METERING EQUIPMENT

- A. Scales and metering equipment used for proportioning materials shall be inspected for accuracy and certified within the past 12 months by the State of California Bureau of Weights and Measures, by the County Director or Sealer of Weights and Measures, or by a scale mechanic registered with or licensed by the County.
- B. The accuracy of the Work of a scale service, except as stated herein, shall meet the standards of the Business and Professions Code and the Code of Regulations pertaining to weighing devices. A Certificate of Compliance shall be presented, prior to operation,

to LAWA for approval and shall be renewed whenever required by LAWA at no cost to LAWA.

- C. Scales shall be arranged so they may be read easily from the operator's platform or area. They shall indicate the true net weight without the application of any factor. The figures of the scales should be clearly legible. Scales shall be accurate to within 1 percent when tested with the plant shut down. Weighing equipment shall be so insulated against vibration or moving of other operating equipment in the plant area that the error in weighing with the entire plant running will not exceed 2 percent for any setting or 1.5 percent for any batch.

12 CALIBRATION OF TESTING EQUIPMENT

Testing equipment, such as, but not limited to pressure gages, metering devices, hydraulic systems, force (load) measuring instruments, and strain-measuring devices shall be calibrated by a testing laboratory acceptable to LAWA at intervals not to exceed 12 months and following repairs, modification, or relocation of the equipment. Calibration certificates shall be provided when requested by LAWA.

13 CONSTRUCTION MATERIALS DISPUTE RESOLUTION

In the interest of safety and public value, whenever credible evidence arises to contradict the test values of materials, LAWA and the Design-Builder will initiate an immediate and cooperative investigation into such contradiction. Test values of materials are results of the materials' tests, as defined by the Contract Documents, required for accepting the Work. Credible evidence is process observations or test values gathered using industry accepted practices. A contradiction exists whenever test values or process observations of the same or similar materials are diverse enough such that the Work acceptance or performance becomes suspect. The investigation shall have access to all test results, procedures, and facilities relevant to the conflicting results and consider all available information and, when necessary, gather new and additional information in an attempt to determine the validity, the cause, and if necessary, the remedy to the contradiction. If LAWA and Design-Builder agree upon any resolution mechanism, the contradiction shall be resolved with such resolution mechanism and the cooperative investigation shall be deemed concluded.

Whenever the cooperative investigation is unable to reach resolution, the investigation will continue by using a third-party laboratory acceptable to both parties.

The final resolution of the third-party laboratory report should be in writing, stamped and signed by a Professional Engineer licensed in the state of CA. The report should to the extent possible identify the issue of discrepancies and recommend a course of action to avoid such discrepancies. LAWA and Design Builder agree to follow such third-party laboratory recommended course of action.

Unless otherwise agreed, each party will bear 50% of the cost of the third-party cost.

14 PRE-FINAL & FINAL ACCEPTANCE INSPECTION

At the completion of Work, after completion of all corrections, the Inspector, LAWA, the Design-Builder and the Design-Builder's design professionals shall make final inspections, as applicable in accordance with the Project Requirements "DESIGN-BUILDER'S QUALITY CONTROL PROGRAM" and "PROJECT CLOSEOUT". The LAWA Inspector will provide a

Final Inspection Correction List(s) itemizing all Work necessary to complete the Project satisfactorily.

15 COMMISSIONING AND CLOSEOUT QUALITY ASSURANCE

- A. During the Commissioning and Closeout Phases of the project, LAWA will perform Quality Assurance reviews and audits of the Commissioning and Closeout activities performed by the Design-Builder.
- B. Commissioning and Closeout activities include those elements of the Work performed after construction is essentially complete and prior to the contract being closed out. Commissioning and Closeout activities include, but are not limited to:
 - 1. Development and approval of the Designer/Builder's Commissioning Plan
 - 2. Development and approval of the pre-functional test plans, procedures and checklists
 - 3. Development and approval of the functional test plans, procedures and checklists.
 - 4. Submittal of O&M documentation
 - 5. Submittal of Training Plans and proof of the subsequent training(s)
 - 6. Submittal of Warranty information
 - 7. Final Test reports for all pre-functional and functional tests
 - 8. Preparation and maintenance of Issues Log and Report(s)
 - 9. Final Commissioning Report
 - 10. Request for Substantial Completion
 - 11. Certification process for Life Safety systems and equipment
 - 12. Initiation, management and closeout of Final Inspection Correction List(s)
 - 13. Final Completion process
 - 14. Final Record documents
 - 15. Training Records
 - 16. Attic stock
 - 17. Final Inspection
 - 18. Final Payment
 - 19. Final approved Warranties, O&M Manuals, Testing Record Documents, As-Built

Drawings, As-Built Models, etc.

- C. Quality Assurance for Commissioning and Closeout activities encompasses those reviews and audits required to assure LAWA that the Design-Builder adequately coordinates, communicates and maintains compliance with all of its quality control processes and documents that relate to Commissioning and Closeout. In addition to reviews and audits, these assurances are achieved through such program management processes as training, document control, change control, validations & verifications, logistics reviews, engineering reviews, testing reviews, etc. that affects the quality of the Commissioning and Closeout planning process and documents.
- D. LAWA will periodically perform reviews and audits of Commissioning and Closeout activities to assure the Design-Builder maintains compliance with the approved processes and documents that relate to Commissioning and Closeout.

END OF PR-13 QUALITY ASSURANCE

PR-14 QUALITY CONTROL PROGRAM

1 GENERAL

- A. The Design-Builder shall adopt a Quality Control Program to accomplish the work. As the cornerstone of the Quality Control Program, the Design-Builder shall develop, submit, implement and maintain an effective Quality Control Plan that details the methods, procedures and resources that will be engaged to control the quality of the Work during the Preconstruction and Construction phases as required to ensure conformance to the Contract Documents.

The intent of this Project Requirement is to establish the requirements for the Design-Builder to develop and implement a Quality Control Program with an adequate level of control that will:

1. Adequately provide for the establishment of acceptable Preconstruction and Construction quality management and oversight.
 2. Provide sufficient information to assure both the Design-Builder and LAWA that the requirement of the contract plans and specifications will be met.
 3. Allow the Design-Builder to have as much latitude as possible to develop its own standard of control per the Contract requirements.
- B. Generally, the Quality Control Plan shall be divided into a Preconstruction Quality Control Plan and a Construction Quality Control Plan that shall consist of the following requirements covering both on-site and off-site Work:
1. The Design-Builder shall develop and submit to LAWA a Preconstruction Quality Control Plan specifically for this Project. The Preconstruction Quality Control Plan shall be comprehensive and include specifically or by reference the incorporation of Quality Control Plans by each manufacturer, supplier, vendor, and subcontractor.
 2. Prior to the start of construction, the Design-Builder shall develop and submit to LAWA a Construction Quality Control Plan specifically for this Project. The Construction Quality Control Plan shall be comprehensive and include quality requirements for all materials and complete construction required by this contract to conform to contract plans, technical specifications and other requirements, whether manufactured by the Design-Builder, or procured by Subcontractors or vendors, in all subcontracts throughout the life of the Project.
 3. Although guidelines are established and certain minimum requirements are specified herein and elsewhere in the contract technical specifications, the Design-Builder shall assume full responsibility for performing the Work in compliance with the Contract Documents.

- C. The Design-Builder shall be prepared to discuss and present, at the preconstruction conference, its understanding of the quality control requirements. The Design-Builder shall not begin any Preconstruction or Construction activities or production of materials to be incorporated into the completed work until the Quality Control Plan for construction as appropriate has been reviewed and approved by LAWA. No partial payment will be made for Design, Preconstruction or Construction subject to specific quality control requirements until the Quality Control Plan has been approved by LAWA.
- D. The Design-Builder shall develop and implement the quality control program to comply with specific quality assurance and control requirements for Construction activities required on this Project. The Design-Builder shall incorporate the quality requirements of the appropriate sections of LAWA's Design & Construction Handbook (DCH) that apply to those activities as part of the Design or Construction Quality Control Plan. Requirements specified in those sections may also cover production of standard products.
- E. The quality control requirements contained in this section and elsewhere in the Contract technical specifications are in addition to and separate from the acceptance testing requirements. Acceptance testing requirements are the responsibility of LAWA Conflicting Requirements: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, Design-Builder shall comply with the most stringent requirement. Design-Builder shall refer uncertainties and requirements that are different, but apparently equal, to LAWA for a decision before proceeding.
- F. A chart showing the QC organizational structure and its relationship to the production side of the Design-Builder shall be furnished to LAWA. The QC team shall be distinct and separate from the design and construction production teams. The QC plan shall define the minimum qualifications of quality staff inclusive of education, previous experience and training requirements. Design/Builder shall furnish the following;
1. Names and qualifications, in resume format, for each person in the QC organization.
 2. Duties, responsibilities and authorities of each person in the QC organization.
 3. Documentation procedures, including proposed report formats for all reports required herein.
- G. A letter signed by an officer of the firm appointing the QC manager stating that he/she is responsible for managing and implementing the QC program as described herein, and that the QC Manager reports to an officer of the firm, someone other than Design-Builder's Project Manager. Included in this letter is the QC Manager's authority to direct the stopping, removal and replacement of non-conforming Work.
- H. In developing the procedures for reviewing, approving and managing submittals, Design-Builder shall provide the name(s) of the person(s) in the QC organization authorized to review and certify submittals prior to approval.
- I. QC plan shall include procedures to control and verify the design in order to ensure that design criteria and requirements of applicable government entities, third parties, and utility owners are met. Design control includes ensuring design requirements are understood,

execution of design verification activities occur, and controlling design changes through final completion are all established processes and are being utilized. Design control shall be applied to computer programs, design tables and all other products that produce analytical results which are used to develop or check designs.

J. Testing laboratory information requirements:

1. A testing plan and log that includes the tests required, referenced by the specification paragraph number requiring the test, test procedures, the frequency, schedule activity number and the person responsible for each test.
2. Procedures to identify, record, track and complete rework items, including schedule activity numbers.
3. A listing of outside organizations such as architectural and consulting engineering firms that will be employed by Design-Builder and a description of the services and resumes of personnel these firms will provide.
4. A list of the definable features of work. A definable feature of work is a task that is separate and distinct from other tasks and requires separate control requirements. As a minimum, unless otherwise approved by LAWA, consider each section of the specifications as a definable feature of work. However, there may be more than one definable feature of work in each section of the specifications.
5. A personnel matrix showing, for each section of the specification, who will review and approve submittals, who will perform and document the three phases of control (prepare, review, and approval) and finally transmit the approval. All technicians performing material testing must be certified for the particular test they are performing and approved by LAWA.

2 DESCRIPTION OF THE PRECONSTRUCTION QUALITY CONTROL PROGRAM

The Preconstruction Quality Control Program will be guided by the Preconstruction Quality Control Plan that will include, as a minimum, the following:

- A. A General Overview of the Preconstruction approach, management and resources required to perform this phase of the Project. As a minimum, include the following:
 1. The Design-Builder's commitment to following the Preconstruction Quality Control Plan.
 2. A policy statement from the Preconstruction team that demonstrates the Design-Builder's intention and commitment to comply with the contractual requirements.
- B. Identification, management endorsement and empowerment of the Preconstruction Quality Control Manager(s).
- C. Description of how management expects projects (generically) to be executed within the firm's organizational structure, established protocols, processes and procedures, including Consultants, Subcontractors and Vendors.

1. Identification of key management personnel responsible for quality control within each discipline within the Preconstruction team.
- D. Preconstruction quality control requirements, policies and procedures that guide the Design-Builder's management and employees in the performance of Preconstruction services include but are not limited to:
- 1) Programming
 - 2) Planning
 - 3) Site Investigations and Surveys
 - 4) Early Work Package Development
 - 5) Owner Purchased Equipment Specifications
 - 6) Preconstruction Coordination and Phasing Documents
 - 7) Construction Logistics Plans
 - 8) Constructability and Maintainability Review Documents
 - 9) Permit, Bidding and Construction Documents
 - 10) Technical Specifications
 - 11) Cost Estimates
 - 12) RFI's, Submittals and Shop Drawings
 - 13) Site Observation and other Construction phase design support services.
 - 14) Commissioning (see Project Requirement for Commissioning)
- E. Organizational chart showing responsibilities for Preconstruction services and quality control checks.
- F. Project Preconstruction Quality Assurance measures shall include:
1. Verify that quality control methods, procedures and resources identified in the Preconstruction Quality Control Plan are being utilized and effective
 2. Evaluate the overall quality of the products being produced
 3. Identify deficiencies and take corrective action as warranted.
- G. Assurance that quality control checks shall be conducted by an independent person qualified in and familiar with the specific area of review who is not directly associated with the development of the project.
- H. A communications plan outlining the protocol for all communications related to the Preconstruction Quality Control Plan.
- I. The format and schedule for checking drawings and specifications.
- J. Format and procedure for documenting that all requirements of the QC Plan have been met and that all comments and issues have been resolved to the satisfaction of LAWA.

Uniform Traffic Control Devices (MUTCD) as required by the relevant municipality. The WTCPs will be based on lane requirements and other special requirements defined by the Los Angeles City Department of Transportation (LADOT), the affected municipalities for construction within their city and from other appropriate agencies for construction in those jurisdictions. The WTCP's shall be designed to maintain designated safe routes to school wherever possible during times of the year when nearby schools are in session. The WTCP's shall be reviewed and coordinated with the LAMP Project Task Force 30 days in advance of any restriction or closure, or with as much notice as technically feasible.

4. Traffic Maintenance during Construction. The following shall be implemented during construction when the LAMP Project Task Force and appropriate city departments or local jurisdictions deem necessary:
 - a. Deliveries and pick-ups of construction materials shall be scheduled during non-peak travel periods to the degree possible and coordinated to reduce the potential of trucks waiting to load or unload for protracted periods of time.
 - b. Access shall remain unobstructed, or equivalent alternate access provided, for land uses in proximity to the project site during construction.
 - c. Unless otherwise specified in the WTCP, DESIGN-BUILDER shall maintain access to businesses, parking and pedestrian access during construction. If it is necessary to temporarily restrict access to a business, DESIGN-BUILDER shall provide the facility advance notice of restrictions. Unless otherwise specified in the WTCP, DESIGN-BUILDER shall schedule access restrictions to off-peak hours or during times when the business is closed and shall not fully restrict access for the total hours of operation of business on any given day of operation.
 - d. Relative to maintaining access to businesses, construction activities shall be sequenced to minimize the temporary removal of multiple blocks of on-street parking at one time unless otherwise specified by the WTCP.
 - e. DESIGN-BUILDER shall use temporary special signage to inform the public of closure information in advance of temporary closures. Signage shall also provide special access directions, if warranted.
 - f. Notice of closure will be prepared by DESIGN-BUILDER with legible maps and reviewed prior to dissemination by the LAMP Project Task Force.
 - g. A construction management plan accepted by LAWA shall be developed by DESIGN-BUILDER and will be implemented during construction, to include the following:
 - 1) Establish requirements for the loading, unloading, and storage of materials on the Project site
 - 2) Coordinate with the City and emergency and safety service providers to ensure adequate access is maintained to the project site and neighboring businesses.
5. Construction Traffic Staging: Construction operations, including, but not limited to, staging of construction traffic, shall be located as far from noise sensitive uses as feasible.
6. Maintenance of Haul Routes. DESIGN-BUILDER shall be responsible for maintenance of haul routes used, including both on- and off-airport roadways. The haul routes shall be maintained periodically and shall comply with City of Los Angeles or other AHJ requirements for maintenance. All on- and off-airport haul roads used by the DESIGN-BUILDER shall be restored to their original condition, or better, at the completion of construction.

changes, detours, or traffic signal modifications. The WTCP, TTS, and haul routes will require input from the LAX LAMP Project Task Force as well as all other AHJs. The DESIGN-BUILDER shall implement and comply with the following TMP measures to reduce construction-related traffic impacts associated with projects at LAX, including:

- 1) Designated Truck Delivery Hours: To the extent possible, truck deliveries of bulk materials such as aggregate, bulk cement, dirt, etc. to the project site, and hauling of material from the project site, shall be scheduled during off-peak hours to avoid the peak commuter and airport traffic periods on designated haul routes. Peak commuter traffic periods are between 7:00 a.m. to 9:00 a.m. and 4:30 p.m. to 6:30 p.m. Monday through Friday. Deviations to this requirement can be requested in writing by DESIGN-BUILDER (i.e., truck delivery waiver request) at least 72-hours in advance, but require LAWA's review and approval, including approval by CALM and by the LAWA MMRP Monitor assigned to the project, prior to actual site deliveries. Peak airport traffic periods occur throughout most of the day, therefore, to the extent possible, truck delivery hours shall be limited to overnight hours from 1:00 a.m. to 7:00 a.m.
 - 2) Designated Truck Routes: For dirt, aggregate, bulk cement, and all other materials and equipment, truck deliveries would be on designated routes only (freeways and non-residential streets). Designated truck routes are limited to:
 - a) Aviation Boulevard (Imperial Highway to Manchester Boulevard)
 - b) Manchester Boulevard (Aviation Boulevard to I-405)
 - c) Florence Avenue (Aviation Boulevard to I-405)
 - d) La Cienega Boulevard (north of Imperial Highway)
 - e) Pershing Drive (Westchester Parkway to Imperial Highway)
 - f) Westchester Parkway (Pershing Drive to Sepulveda Boulevard)
 - g) Century Boulevard (Sepulveda Boulevard to Aviation Boulevard)
 - h) Sepulveda Boulevard (Westchester Parkway to Imperial Highway)
 - i) Imperial Highway (Pershing Drive to I-405)
 - j) I-405
 - k) I-105; and
 - l) 98th Street (Sepulveda Boulevard to La Cienega Boulevard)
 - 3) Stockpile Locations: All stockpile locations must be pre-approved by LAWA. Stockpile locations/laydown/staging areas shall be accessed by construction vehicles with minimal disruption near residential neighborhoods.
2. Maintenance of Traffic. To ensure that continued vehicular access to community facilities is maintained, DESIGN-BUILDER shall provide at least one lane of traffic in each direction on access cross streets that are not going to be dead-ended during construction. If one lane of traffic cannot be maintained, the contractor shall provide a detour route for motorists.
 3. Worksite Traffic Control Plans. Before the start of construction, WTCP and Traffic Circulation plans, including identification of detour requirements, will be formulated by the DESIGN-BUILDER in cooperation with the affected municipalities and other jurisdictions (County, State) in accordance with the WATCH manual and the California Manual on

PR-18 ENVIRONMENTAL

1. GENERAL

- A. This section covers environmental mitigation requirements for the project that include, but are not limited to, traffic, air quality, noise, water quality, recycling and waste disposal, material stockpiles, excavation including potential to encounter archaeological or paleontological resources, hazardous materials, and other environmental considerations.
- B. Compliance with this section does not exempt the DESIGN-BUILDER from compliance with other applicable permits, approvals, requirements, codes, rules and regulations of other agencies with jurisdiction over their respective aspects and components of the project.
- C. DESIGN-BUILDER's design documents and environmental engineering design efforts must conform to federal, state, regional, and local environmental laws and regulations as well as environmental management policies and sustainability as mandated in the LAWA Sustainable Design and Construction Requirements dated August 4, 2017 or latest version; all mitigation measures and/or standard control measures adopted by LAWA and/or the FAA in connection with the Airfield and Terminal Modernization Project (ATMP) pursuant to the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA) and other applicable laws; and for Master Plan projects the requirements of the 2004 Master Plan Mitigation Monitoring and Reporting Program (MMRP) and other agreements. In addition, where applicable, designs must comply with California Green Building Code and be designed to meet LEED Version 3 Standards. DESIGN-BUILDER is required to inquire with LAWA concerning specific environmental policies that apply to design document development.

2. REQUIREMENTS

- A. DESIGN-BUILDER shall fulfill all requirements identified in the MMRP and other documents contained within the ATMP Environmental Impact Report (EIR) and National Environmental Policy Act (NEPA) Environmental Assessment (EA).
- B. DESIGN-BUILDER shall fulfill all requirements identified by the Los Angeles Green Building Code (LAGBC) to achieve "Tier 1" certification.
- C. DESIGN-BUILDER shall fulfill all requirements identified by the City of Los Angeles' Low Impact Development Ordinance (LID), or unless otherwise directed by AHJ.

3. TRAFFIC

- A. DESIGN-BUILDER shall comply with the following traffic requirements:

1. Traffic Management Plan

- a. Prior to initiation of construction, a Traffic Management Plan (TMP) shall be completed by the DESIGN-BUILDER and accepted by the AHJs. The TMP shall include, but not be limited to, associated haul routes and Worksite Traffic Control Plans (WTCP), as well as Temporary Traffic Signal (TTS) Plans and Temporary Street Lighting (TSL) Plans, if TTS and TSL plans are needed. The TMP shall be prepared in accordance with the TMP guidelines published by Caltrans and shall establish a clear protocol; to address traffic issues, emergencies, incidents, special events, and contingency plans during construction. The TMP shall be developed in coordination with LAWA, the City of Los Angeles, and Caltrans. The TMP shall include a description of how the contractor will manage all construction-related traffic, deliveries, shift hours, parking locations, haul routes, and modifications to shuttle system operations, if any. The WTCP shall detail the locations for any variable message and other signs, lane striping

5. Batch plant and crusher production combined are limited by EQN (1) below,

$$197.9 = 0.00753 \times B + 0.00175 \times C \quad \text{EQN (1)}$$

Where:

B = Batch Plant production in cubic yards per month

C = Crusher production in short tons per month

4. **RECORDKEEPING**

The DESIGN-BUILDER shall provide recordkeeping in accordance with the Permit. At a minimum, the DESIGN-BUILDER shall supply daily operational and emission quantities, requirements of both the concrete batch plant and crusher, for all items listed in the Permit. Prior to installation of the concrete batch plant or crusher, the DESIGN-BUILDER shall coordinate with LAWA to confirm the format of, and process and schedule for, records submittal to LAWA.

END OF PR 17 PORTABLE CONCRETE BATCH PLANT AND CRUSHER

PR-17 PORTABLE CONCRETE BATCH PLANT AND CRUSHER

1. GENERAL

- A. It is anticipated that concrete and crusher plants are not required for this project. However other LAWA projects may provide those services and potentially be made available through special circumstances. Here are the requirements for operation of an on-site concrete batch plant and crusher that should be considered when coordinating with another project.
1. LAWA has obtained a Facility Permit to Operate (Permit) from the SCAQMD to operate an on-site concrete batch plant and crusher.
 2. A Permit issued by the SCAQMD is appended to this section. Included in conjunction with the Permit are certain project limitations as described in Section 3 herein. All provisions and requirements of the Permit apply to the project, with the exception of those specific to Process 9, System 1: Concrete Batch Plant(s) and Control Equipment "A" as defined in the Permit.
 3. If the DESIGN-BUILDER chooses to utilize an on-site concrete batch plant and/or crusher, the DESIGN-BUILDER will be responsible for design, installation and permits for temporary utilities, installation, etc.

2. STANDARDS FOR COMPLIANCE

The DESIGN-BUILDER shall comply with all local, state or federal requirements for installation and operation of a concrete batch plant and crusher. The DESIGN-BUILDER shall also comply with the SCAQMD permit.

3. PROJECT LIMITATIONS

- A. The batch plant and crusher operations shall have certain limitations in their respective operations which include the following:
1. With the exception of front loaders, all equipment associated with the batch plant and crusher facility shall be electric-powered with power provided from the LADWP grid. Front loaders equipment shall comply with PR-18 mitigation requirements and special construction.
 2. Total monthly fuel consumption shall not exceed 4,000 gallons for the loaders combined (onsite use), unless specifically authorized in writing by LAWA.
 3. The total concrete production for the concrete batch plant will not exceed 26,000 cubic yards per month, unless specifically authorized in writing by LAWA.
 4. The total crushing production for the crusher will not exceed 30,000 short tons per month, unless specifically authorized in writing by LAWA. The material that will be crushed onsite shall be reused for onsite construction, or if unused become property of LAWA; any excess materials that will not be crushed shall be hauled off airport property.

Continued on next page

record and note deviations that are accepted and not corrected.

2. On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare survey, certified as required for final property survey dimensions, locations, angles, and elevations of construction and site work.
- B. Site Improvements: Locate and lay out site improvements, including pavements, stakes for grading, fill and topsoil placements, utility slopes, and invert elevations.
- C. Building Lines and Levels: Locate and lay out batter boards for structures, building foundations, column grids and locations, floor levels, and control lines and levels required for mechanical and electrical work.
- D. Final Property Survey: Prepare final property survey showing significant features (real property) for Project. Include on survey certifications, signed by surveyor, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on survey. At Substantial Completion, DESIGN-BUILDER shall have final property survey recorded by or with local governing authorities as official "property survey."

9. RECORD DOCUMENTS

- A. The DESIGN-BUILDER shall ensure that all survey-data collected is directly incorporated into the latest Design and Construction Documents, (Design Management PR-11) throughout all stages of the project.
- B. The DESIGN-BUILDER shall ensure that all survey-data collected is directly incorporated into the Model of Existing and Proposed Conditions (PR-21 Building Information Model (BIM) and VDC Coordination) throughout all stages of the project.
- C. The DESIGN-BUILDER shall ensure that all survey-data collected is directly incorporated into the Project Record Documents (PR-25) prior to submitting to LAWA.

END OF PR-16 SURVEYING

grades, grade changes or angle points, curbs, building corners, utilities, etc.

- C. The DESIGN-BUILDER shall establish the building baseline, building corners, and an elevation benchmark for building construction. The DESIGN-BUILDER's Surveyor shall lay out the building construction and all Work, set grades, lines, levels and positions throughout, including the inverts or lines and grades, elevations, and measurements of constructed Work for the purposes of determining any construction errors or deficiencies and for the record data collection.
- D. DESIGN-BUILDER shall provide post-installation surveying of all construction and installations (foundations, buildings, structures, utilities, interior features, exterior features, topography, paving, etc.). DESIGN-BUILDER shall incorporate all survey-data directly into their Model of Existing & Proposed Conditions (PR-21), and shall update their Record Documents accordingly (plans, profiles, elevations, etc.).
- E. DESIGN-BUILDER shall provide a Light Detection and Ranging (LIDAR) Survey of all interior and exterior spaces upon Substantial Completion.
- F. DESIGN-BUILDER shall provide an available Licensed Surveyor during all hours of construction for setting grade stakes, monitoring construction, verifying locations and dimensions, and preparing Record Documents. The DESIGN-BUILDER's Surveyor shall survey the elevation and alignment of the critical structural steel connection points of the elevated pedestrian walkways. LAWA may direct the DESIGN-BUILDER to perform additional survey Work as deemed necessary to verify accuracy of construction Work. Any delay due to the unavailability of the Surveyor to perform Work as requested shall be the sole responsibility of the DESIGN-BUILDER.
- G. DESIGN-BUILDER shall provide a complete survey deliverable of all construction and installations (foundations, buildings, structures, utilities, property limits, lease limits, interior features, exterior features, topography, paving, etc.) upon Substantial Completion, signed and sealed by the Licensed Surveyor.

7. LINE AND GRADE

- A. The DESIGN-BUILDER shall ensure that all construction and installations of structures, utilities, pavement, equipment, and all other project components conform to the lines, elevations, and grades shown on the DESIGN-BUILDER's Construction Documents. DESIGN-BUILDER shall record any deviation from the required lines and levels, and advise LAWA when deviations that exceed indicated or recognized tolerances are detected. DESIGN-BUILDER shall clearly reflect any and all deviations that are accepted and not corrected on the Project Record Drawings (PR-25).
- B. The DESIGN-BUILDER shall survey three (3) consecutive points set on the same slope of any line analyzed together so that any variation from a straight line can be detected. Any such variation shall be reported to LAWA. In the absence of such report, DESIGN-BUILDER shall be responsible for any error in the grade of the Work.

8. PERFORMANCE

- A. Surveyor's Log: Maintain Surveyor's log control and other survey work. Make log available for reference.
 - 1. Record deviation from required lines and levels, and advise LAWA when deviations that exceed indicated or recognized tolerances are detected. On the Project Record Drawings,

4. DESIGN AND PRECONSTRUCTION SURVEY SERVICES

- A. The DESIGN-BUILDER shall provide surveying to support all stages of design and preconstruction. This includes, but is not limited to, confirming the dimensions and locations of property lines, streets, sidewalks, buildings, structures, utilities, interior features, exterior features, topography, etc.
- B. The DESIGN-BUILDER shall provide extensive surveying services in support of subsurface utility investigations, locating, mapping, modeling, etc. (PR-07). The DESIGN-BUILDER shall provide utility as-built information in accordance with the LAWA Utility As-Built Survey Standards.
- C. The DESIGN-BUILDER shall provide a complete topographical survey, and shall use that data in providing cost and schedule estimates relating to excavation quantities.
- D. The DESIGN-BUILDER shall provide surveying services to confirm the locations of all tie-in points between existing and proposed utilities, structures, surfaces, etc.

5. EXAMINATION OF EXISTING CONDITIONS

- A. Identification: Identify existing LAWA control network points and verify control to the LAWA Central Terminal Area monument located on the south side of the Theme Building.
- B. Verify layout information indicated in relation to property survey and existing benchmarks before proceeding to lay out Work. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction.
 - 1. Do not change or relocate LAWA benchmarks or control points without prior written approval of LAWA. Promptly report lost or destroyed reference points or requirements to relocate reference points because of necessary changes in grades or locations.
 - 2. Promptly replace lost or destroyed Project control points. Base replacements on original survey control points.
 - 3. Record benchmark locations, with horizontal and vertical data, on Project Record Documents and Datasets.
- C. Existing Subsurface Utilities and Equipment: Existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify existence and location of underground utilities and other construction. Document all subsurface utilities in accordance with LAWA Utility As-Built Survey Standards attached to this PR.
- D. Prior to construction, verify location and invert elevation at points of connection.

6. CONSTRUCTION SURVEY SERVICES

- A. The DESIGN-BUILDER shall provide extensive surveying services to support all phases of design, construction and inspection. This includes, but is not limited to, confirming the dimensions and locations of buildings, structures, utilities, interior features, exterior features, topography, paving, etc.
- B. The DESIGN-BUILDER shall provide and preserve all necessary survey-stakes necessary for construction and inspection. Survey stakes shall be set and stationed for finished and rough

PR-16 SURVEYING

1. General

Unless otherwise specified, the DESIGN-BUILDER shall perform and be responsible for the accuracy of surveying necessary to adequately construct the Project in accordance with the Contract Documents. All Work under this section shall be accomplished by or under the direct supervision of a Surveyor with a current California Professional Land Surveyor License.

Refer to the Project Requirements (PR-21) – Building Information Model (BIM) and VDC Coordination for survey deliverables related to existing condition models.

2. Surveying Responsibilities and Standards

- A. DESIGN-BUILDER shall be solely responsible for the performance and accuracy of all surveying necessary to adequately perform site-investigations, design, preconstruction, construction, and closeout, and prepare all associated documentation and modeling in accordance with the Contract.
- B. DESIGN-BUILDER shall provide all Latitude & Longitude and Northing & Easting coordinates based on the North American Datum of 1983 (NAD83).
- C. DESIGN-BUILDER shall provide all elevation coordinates based on the North American Vertical Datum of 1988 (NAVD88).
- D. The DESIGN-BUILDER shall utilize and adhere to the LAX Survey Control Network 2018: Consolidated LAX Campus: Landside Survey Control – Central Terminal Area as well as the LAWA LAX Central Terminal Area Top of Slab Survey Data as well as the accompanying Civil3D files.
- E. All surveying shall be performed by a Surveyor with a current California Land Surveyor License. All survey deliverables shall be signed and sealed by the Licensed Surveyor.
- F. All surveying shall be performed and documented in accordance with LAX Survey Control Network 2018, found in LAWA's Design and Construction Handbook.

3. PERMANENT SURVEY MARKERS

- A. The DESIGN-BUILDER shall preserve all existing survey benchmarks and monuments, and shall provide and maintain all additional survey monuments, benchmarks, and other survey markers necessary for the performance and inspection of the work. DESIGN-BUILDER shall request permission from LAWA at least 7 days prior to removing any survey marker. Lost or disturbed monuments shall be replaced at the DESIGN-BUILDER's expense by a California Licensed Land Surveyor.
- B. At least seven (7) days before the start of construction, the DESIGN-BUILDER shall provide Pre-Construction Survey Tie Notes, indicating the Latitude, Longitude, Elevation, and description of all existing survey monuments, benchmarks, and other survey markers prior to starting construction.
- C. DESIGN-BUILDER shall provide Post-Construction Survey Tie Notes, indicating the Latitude, Longitude, Elevation, and description of all remaining survey monuments, benchmarks, and other survey markers. DESIGN-BUILDER shall incorporate and include in the Post-Construction Survey Tie Notes into the Project Record Documents.

5 EMERGENCIES

In an emergency affecting the safety of persons or property, DESIGN-BUILDER shall act, at DESIGN-BUILDER's sole discretion, to prevent any threatened damage, injury or loss. Additional compensation or extension of contract time claimed by DESIGN-BUILDER because of an emergency will be reviewed as changes in the work. The DESIGN-BUILDER shall develop and implement an airport specific Incident Response Plan (IRP). The DESIGN-BUILDER's IRP will be utilized as a project-wide standard operating procedure and comply with LAWA Construction Safety Program requirements. See Appendix for the "LAWA Construction Safety Program requirements." The DESIGN-BUILDER shall provide a preliminary written notification within 1 hour of an incident, regardless of the severity and comply with LAWA Construction Safety Program requirements. The DESIGN-BUILDER shall provide within 24 hours of an incident a complete and thorough incident investigation, and provide the report to the LAWA Project Manager, LAWA Program Safety Manager, and the LAWA Inspection Team. The report must comply with LAWA Construction Safety Program requirements.

6 DRUG FREE WORK PLACE

- A. By signing the agreement, DESIGN-BUILDER certifies, under penalty of perjury under the laws of the State of California, that DESIGN-BUILDER will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code, Section 8350 et seq.), and will provide a drug-free workplace by taking the following actions:
- B. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.
- C. Establish a drug-free awareness program to inform employees about:
 - 1. The dangers of drug abuse in the workplace
 - 2. The person's or company's policy of maintaining a drug-free workplace
 - 3. Any available counseling, rehabilitation, and employee assistance programs
 - 4. Penalties that may be imposed upon employees for drug abuse violations
- D. Provide, as required by Government Code, Section 8355(c), that every employee who works under the contract will:
 - 1. Receive a copy of the company's drug-free workplace policy statement
 - 2. Agree to abide by the terms of the company's statement as a condition of employment

END OF PR-15 SAFETY

- B. The DESIGN-BUILDER shall designate a safety officer within its organization who will be responsible for all aspects of the safety programs for the project.
- C. The DESIGN-BUILDER shall provide a site specific safety plan for the project including the process and procedures for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Processes and procedures shall include coordination with and adherence to LAWA safety personnel.
- D. The site specific safety plan shall contain the location of safety equipment including but not limited to defibrillators, fire blankets, extinguishers, fall harnesses, lanyards, and first aid kits.
- E. The site specific safety plan shall include but not limited to: locations of ingress and egress to work sites, gates and fences, work hours, route to nearest emergency facility (hospital), contact numbers for: DESIGN-BUILDER safety officer, LAWA safety, ambulance, hospital, police, fire department and other emergency response teams should a breach of a utility or injury occur.
- F. The DESIGN-BUILDER shall provide a site specific safety manual for the needs of this Project and shall be maintained at the site and available for review upon request.
- G. The site specific safety manual shall outline the policies and procedures to be followed for this project by both the DESIGN-BUILDER and its subcontractors.
- H. The final site specific safety plan and manual shall be provided in an organized and coordinated manner with the plan title, project name, DESIGN-BUILDERS name, State project/work order number, and date of issuance located on the cover. The finalized safety plan and manual shall be bound and issued to LAWA thirty (30) days prior to the start of construction. The DESIGN-BUILDER shall submit ten (10) copies to LAWA for informational purposes only.
- I. A copy of the site specific safety manual shall be given to each worker at the time of safety orientation. Each worker will sign the manual as confirmation of attendance and understanding of the project safety orientation.

4 WEEKLY SAFETY REPORT

- A. The DESIGN-BUILDER safety manager shall present a cumulative statistics of safety at each weekly owner meeting. The report shall include but not limited to:
 - 1. Head count of each sub-project
 - 2. Number of incidents and summary details of each
 - 3. Number of near misses and summary details of each
 - 4. Number of attendees in safety orientation
 - 5. Summary list of safety topics discussed with workers during safety meeting prior to work commencing.
 - 6. Number of site safety inspections
 - 7. List of permits issued for: hot work, confined space, lock out tag out, procedures in place
 - 8. List of ASR and USR closed, pending and operating.

- C. DESIGN-BUILDER shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Work. LAWA shall have no responsibility for initiating, maintaining and supervising the safety of persons and property.
- D. Contractor shall comply in all respects with the minimum safety standards and requirements. The provision or omission of safety and/or health services by LAWA to DESIGN-BUILDER shall not be deemed to transfer responsibility to LAWA, or their acceptance or assumption of responsibility, in whole or in part, for safety on the project site(s).
- E. DESIGN-BUILDER shall take precautions for safety and provide protection to prevent damage, injury or loss to:
 - 1. Employees working under the contract and other persons who may be affected thereby.
 - 2. The work and materials and equipment to be incorporated therein, whether in storage on or off the project site, under care, custody or control of DESIGN-BUILDER or DESIGN-BUILDER's subcontractors or sub-subcontractors.
 - 3. Other property at the project site, or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement during the course of construction.
- F. DESIGN-BUILDER shall comply with all applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on the safety of persons or property, or their protection from damage, injury or loss.
- G. DESIGN-BUILDER shall erect and maintain, as required by existing conditions and performance of the contract documents, safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying LAWA, other owners and users of adjacent sites and utilities.
- H. DESIGN-BUILDER shall comply with all applicable laws, ordinances, rules, regulations and lawful orders of public authorities regarding the storage and/or use of explosives or other hazardous materials or equipment necessary for execution of Work. DESIGN-BUILDER shall employ properly qualified personnel for supervision of same.
- I. DESIGN-BUILDER shall remedy damage and loss to property caused in whole or in part by DESIGN-BUILDER, a subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which DESIGN-BUILDER is responsible under.
- J. DESIGN-BUILDER shall not permit any part of the Work or Project site to be loaded so as to endanger its safety.
- K. When conditions of the work, in the judgment of LAWA, present unreasonable risk of injury or death to persons or property damage, LAWA, may direct DESIGN-BUILDER, at DESIGN-BUILDER's sole expense, to close down the work and not commence work again until dangerous conditions are eliminated.
- L. DESIGN-BUILDER, at DESIGN-BUILDER's own cost, shall rebuild, repair, restore and make good any and all damages to any portion of the work affected by such causes before acceptance of the work.

3 SAFETY PLAN & MANUAL

- A. The objective is to eliminate all injuries to persons and damage to property.

PR-15 SAFETY

1 GENERAL

- A. The objective is for the DESIGN-BUILDER to eliminate all injuries to persons and damage to property.
- B. The DESIGN-BUILDER shall perform all work in compliance with LAWA's Construction Safety Program Requirements, dated April 1, 2022, for construction safety program requirements, (attached to the contract documents). LAWA may withhold payment to DESIGN-BUILDER until such time these requirements are met.
- C. Submittals: The DESIGN-BUILDER shall submit and comply with all required safety plans (for each CGMP and or task order), such as but not limited to, incident prevention plan, incident response plan, Injury and Illness Prevention Plan (IIPP), and Site Specific Safety Plan (SSSP) as required in LAWA's construction safety program requirements. All required safety plans are to comply with LAWA's construction safety program. Safety plans must be submitted for approval within 30 days after NTP.
- D. Qualified Safety Personnel: DESIGN-BUILDER shall have competent and qualified safety staff present at work site at all times during working hours as detailed in LAWA's construction safety program requirements. All DESIGN-BUILDER safety staff shall meet or exceed the qualifications set forth in LAWA's construction safety program requirements. Safety staff are subject to approval by LAWA.
- E. Forms: DESIGN-BUILDER shall properly complete and submit in a timely manner, and as required by LAWA, the forms defined in LAWA's construction safety program requirements.

2 PRACTICES, REGULATIONS, AND STANDARDS

- A. DESIGN-BUILDER shall comply with LAWA's Construction Safety Program Requirements, Cal/OSHA safe practices and regulations, FAA rules and other LAWA safety requirements throughout all phases of the project.
- B. In addition to the requirements specified in other sections of the Contract Documents, the following Safety Requirements shall also apply to DESIGN-BUILDER's activities:
 - 1. Traffic Control - DESIGN-BUILDER shall furnish all required traffic control to protect workers, airport operations, and the public inside and outside of the work area.
 - 2. Violations - In the event an employee of DESIGN-BUILDER violates a safety provision, they shall be prohibited from returning to work in the work area pending an investigation and first attending another orientation class and approval of LAWA. Violations will be deemed as just and sufficient cause to demand the employee be permanently removed from the job site. DESIGN-BUILDER shall be responsible for all costs and delays caused by safety violations.
 - 3. DESIGN-BUILDER shall designate a responsible representative who will be personally available on a twenty-four (24) hour basis. DESIGN-BUILDER shall advise LAWA of the representative's name and telephone number (the telephone shall not be connected to an answering machine). In the event the DESIGN-BUILDER's designated representative is not available due to illness or approved time off, DESIGN-BUILDER shall designate an alternate, who will assume all duties of the DESIGN-BUILDER's designated representative and shall be available on a twenty-four (24) hour basis.

END OF PR-14 QUALITY CONTROL PROGRAM

ROW	Zone	Permit	Maintenance	Quality Plan	Material Testing	Quality Control L1	Acceptance (QA) L2	Final Acceptance L3 (QA)	Closeout	City Acceptance
Caltrans RW	5- yellow	Encroachment Permit / B-Permit	LAWA	Caltrans QMP/SIOMP	METS	Design-Build	LAWA	Caltrans	Caltrans / BCA / BOE	Close Out based on Caltrans Acceptance
City RW	1- Magenta 3-Green	B-Permit	LAWA	LAWA Quality Management Plan	GSD/3rd Party	Design-Build	LAWA	City / BCA	City / BOE	Verify LAWA Records / Verify QC Records / Perform Inspection As-Needed / Inspect the Inspectors
LAWA RW	2-Blue 4-Light blue	B-Permit	LAWA	LAWA Quality Management Plan	GSD/3rd Party	Design-Build	LAWA	City / BCA	City / BOE	Verify LAWA Records / Verify QC Records / Perform Inspection As-Needed / Inspect the Inspectors

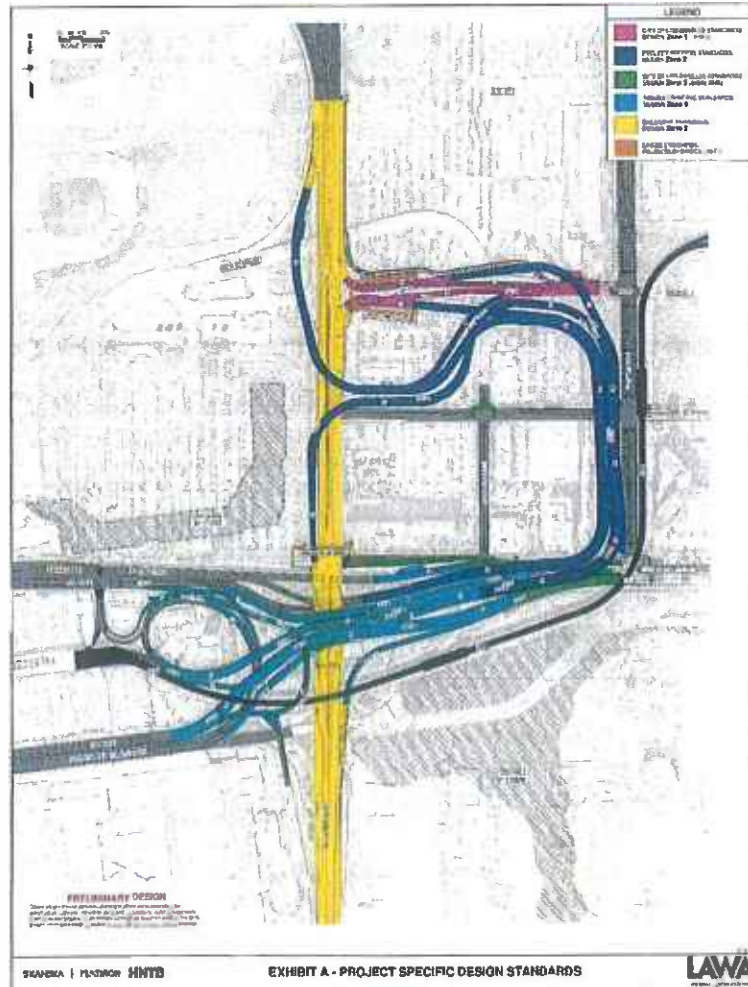


Exhibit 2. Colored Plan and Matrix Rev. 5

Clarification of Defined Design Zones and QC QA Roles

Per PR-14, Design Builder is to develop a QC plan for the project to include:

- Org-chart detailing QC Staff and roles & responsibilities
- Testing & Inspection Matrix for material to include sampling, testing frequencies, ASTM, Cal Trans, etc

Defined Areas

Zones 1 & 3 - QC Inspection of all work - No QC testing will be required in these areas

Zones 2,4,& 5 - Full QC inspection & Testing program

Entire project is BOE Permitted —

Zone 5 — Will be constructed per a B permit plan sheet under a Cal Trans Co-Op agreement and encroachment permit -Designed and built to Cal Trans standards including testing. LAWA QACID will be approved Cal Trans QA for Zone 5 under forthcoming QMP, & SIQMP and will perform all QA Inspection and testing. **Design-BUILDER will be responsible for QC Inspection and QC testing**

Zones 2 & 4 - Will be constructed under a B permit plan utilizing a Cal Trans design. LAWA QACID will be performing QA inspection and testing. **Design Builder will be responsible for QC Inspection and QC testing.**

Zones 1 & 3 - Will be constructed under a B permit utilizing LA City BOE plans, Standard plans. LAWA QACID will be performing QA inspection and testing. **Design Builder will be responsible for QC Inspection. Design Builder will not be required to perform QC testing in Zones 1 & 3.**

- B. All quality items of construction shall be subject to inspection by LAWA at the point of development, production, manufacture or shipment to determine if the Design-Builder including the Design-Builder's Subcontractors, producers or manufacturers maintain an adequate quality control system in conformance with the requirements detailed herein and the contract documents.
- C. Audits or Inspections by LAWA does not relieve the Design-Builder of performing the quality control checks and inspections to ensure construction activities are performed in conformance to the contract documents and as required herein of Design-Builder's Work, including the Work of the Design-Builder's Subcontractors.
- D. A copy of the audit report will be transmitted to the Design-Builder's Construction Quality Control Manager, the Design/Build Project Manager and LAWA. The Design-Builder shall develop a response to the audit findings that includes the steps to be taken to resolve the findings. Corrective action to resolve audit findings will be the responsibility of the Design-Builder.

10 NONCOMPLIANCE

- A. LAWA will notify the Design-Builder of any noncompliance with any of the foregoing requirements. The Design-Builder shall, after receiving such notice, immediately take corrective action. Any notice, when delivered by LAWA or its authorized representative and/or to the Design-Builder or its authorized Quality Control representative at the site of the work, should be considered sufficient notice.
- B. In cases where quality control activities do not comply with either the Design-Builder Quality Control Program or the contract provisions, or where the Design-Builder fails to properly operate and maintain an effective Quality Control Program, as determined by LAWA, LAWA may:
 - 1. Order the Design-Builder to replace ineffective or unqualified quality control personnel or Subcontractors.
 - 2. Order the Design-Builder to stop operations until appropriate corrective actions are taken.
 - 3. Impacts caused by these actions are deemed to be the responsibility of the Design-Builder.

11. EXHIBITS

The daily inspection reports shall be signed by the quality control personnel responsible and the Design-Builder's Quality Control Manager(s). LAWA shall be provided with at least one copy of each daily inspection report on the workday following the day of record.

2. Test Reports. The Quality Control Manager shall be responsible for establishing a system that will record all quality control test results. Test reports shall document the following information:
 - a. Technical specification item number and description.
 - b. Test designation.
 - c. Location.
 - d. Date of test.
 - e. Control requirements.
 - f. Test results.
 - g. Causes for rejection.
 - h. Recommended remedial actions; and
 - i. Retests.

Test results from each day's Work period shall be submitted to LAWA prior to the start of the next day's Work period. When required by technical specifications, the Design-Builder shall maintain statistical quality control charts. The daily test reports shall be signed by the quality control personnel responsible and the Quality Control Manager.

8 CORRECTIVE ACTION REQUIREMENTS

- A. Conditions adverse to quality or Work performed not in compliance with the Contract Documents will be reviewed by the Design-Builder to determine the cause and to recommend corrective action that will correct the Work and preclude recurrence.
- B. The Design Builder's Quality Control Manager(s) shall report the appropriate action to be taken when a process is deemed, or believed, to be out of control (out of compliance) and detail what action will be taken to bring the process under control. The requirements for corrective action shall include both general requirements for the operation of the Quality Control Program as a whole, and for individual items of Work contained in the technical specifications. The corrective action plan shall be submitted to LAWA within seven (7) days of the identification of the issue.
- C. The Quality Control Plan shall detail how the results of quality control inspections and tests will be used for determining the need for corrective action and shall contain clear rules to gauge when taken to regain process control.
- D. When applicable or required by technical specifications, the Design-Builder shall establish and utilize statistical quality control charts for individual quality control tests. The requirements for corrective action shall be linked to the control charts.

9 AUDIT REQUIREMENTS

- A. The Design-Builder Quality Control Program shall be subject to audit by the LAWA Quality Assurance Manager.

7 DOCUMENTATION

- A. The Design-Builder shall maintain current quality control records of all quality program activities, inspections and tests performed. These records shall include factual evidence that the required logistics planning, meeting minutes, inspections or tests have been performed, type and number of inspections or tests involved, results of inspections or tests, nature of defects, deviations, causes of rejection, etc., proposed remedial action, and corrective actions taken, are completed as required by the contract documents.
- B. These records must cover both conforming and defective or deficient features, and must include a statement that all designs, plans, supplies and materials incorporated in the Work are in full compliance with the terms of the contract. Legible copies of these records shall be furnished to LAWA daily. The records shall cover all Work placed after the previously furnished records and shall be verified and signed by the Design-Builder.
- C. Specific Design-Builder quality control records required for the contract shall include, but are not necessarily limited to, the following records:

- 1. Daily QC Inspection Reports During Construction. Each Design-Builder quality control staff member shall maintain and submit daily reports and maintain a log of all inspections performed for both Design-Builder and Subcontractor operations on a form acceptable to LAWA.

These daily reports shall provide factual evidence that quality control inspections have been performed and shall, as a minimum, include the following:

- a. Work activities including
 - 1) Date and work shift hours.
 - 2) Work performed.
 - 3) Who performed the Work (i.e. Name of Prime and/or Sub).
 - 4) Specific location of the Work.
 - 5) Quantity of Work installed in place.
 - 6) Onsite equipment and utilization
- b. Technical specification item number and description.
- c. Compliance with approved submittals.
- d. Proper storage of materials and equipment.
- e. Proper operation of all equipment.
- f. Statement attesting to conformance with plans and technical specifications.
- g. Review of quality control tests; and
- h. Safety inspection.

The daily inspection reports shall identify inspections conducted, results of inspections, location and nature of defects found, causes for rejection, and remedial or corrective actions taken or proposed.

completed Work is ready for inspection, LAWA will schedule the Pre-Final Acceptance Inspection and will prepare a list of deficient items (punch list) discovered during the inspection. The deficiency list will be transmitted to the Design-Builder for correction of the deficient items.

6. Final Acceptance Inspection – after the Design-Builder has completed all items on the deficiency list (generated from the Pre-Final Acceptance Inspection), he or she shall request a Final Acceptance Inspection. The request shall be made in writing at least 72 hours in advance of the inspection. All areas must be cleaned and ready for turnover prior to this inspection. LAWA, stakeholder representatives, the Design-Builder's Design Professionals, and other interested parties will inspect the subject Work to ensure that all deficiencies have been satisfactorily attended to and that no new deficiencies have appeared, and that all systems are completely functional. Any outstanding or additional deficient items will be noted and handled by B.5 (Pre-Final Acceptance Inspection) above until the Work is acceptable.
- C. The Design-Builder must allow sufficient time in the schedule to perform all required quality control inspections and testing.

6 QUALITY CONTROL TESTING REQUIREMENTS

- A. As a part of the overall Quality Control Program, the Design-Builder shall implement a Quality Control Inspection and Testing Plan, to meet the requirements of the Contract Documents. The inspection and testing plan shall include the minimum tests, inspections, and frequencies required by each technical specification, as well as any additional quality control tests that the Design-Builder deems necessary to adequately control production and/or construction processes.
- B. The required Quality Control inspections and tests can be developed in a matrix and shall, as a minimum, include the following:
 1. Technical Specification Section number.
 2. Item description (e.g., Concrete, Plant Mix Bituminous Pavements).
 3. Test Location (i.e. onsite, offsite, laboratory, manufacturer, fabricator, etc.)
 4. Test type (e.g., slump, gradation, grade, thickness etc...).
 5. Test standard (e.g., ASTM, UL, or another required test standard as applicable).
 6. Inspection and test frequency (e.g., as required by technical specifications or minimum frequency when requirements are not stated).
 7. Inspection and test responsibility (e.g., plant personnel); and
 8. Control requirements (e.g., target, permissible deviations and acceptance criteria).
- C. LAWA reserves the right to witness all quality control sampling and testing at any location.
- D. All quality control test results shall be documented by the Design-Builder as required by the Documentation this PR.

and no later than two weeks after the start of a new or changed operation, LAWA will meet with the Design-Builder's Quality Control Manager(s) and applicable subcontractors' supervisor and their Quality Control representatives to check the following items, as a minimum:

- 1) Workmanship to established quality standards
 - 2) Conformance to contract drawings, specifications and the accepted shop drawings
 - 3) Adequacy of materials and articles utilized
 - 4) Results of inspection and testing methods
 - 5) Adequacy of as-built drawings maintained daily.
- b. Once accepted, the representative sample will become the physical baseline by which ongoing work is compared to quality and acceptability. To the maximum practical extent, approved representative samples of Work elements shall remain visible until all work in the appropriate category is complete. Acceptance of a sample does not waive or alter any contract requirements or show acceptance of any deviation from the contract, not approved in writing by the LAWA.
3. Follow-up Inspection: The Design-Builder's Construction Quality Control Manager(s) will monitor the Work to review the continuing conformance of the Work to the workmanship standards established during the preparatory and initial inspections. These inspections will continue through construction completion and the initiation of the Stage 1 Closeout Procedure of the Project Requirement for Project Closeout.
4. Completion Inspection – 48 hours prior to the completion of an item or segment of Work, and prior to covering up any Work, the Design-Builder will notify LAWA in writing of the need for a Completion Inspection. LAWA will verify that the segment of Work is substantially complete, all inspection and tests have been completed, and the results are acceptable. The purpose of this inspection is to allow further corrective Work upon, or integral to, the completed segment of Work. This is not an acceptance inspection.
- Should any items be determined deficient, needing correction or found to be nonconforming, a deficiency list will be prepared and issued to the Design-Builder for correction, repair or replacement of any deficient or nonconforming items. The cognizant Design-Builder's quality control personnel will verify the correction of the deficient and/or nonconforming items, prior to the start of the next operation and notify LAWA.
5. Pre-Final Acceptance Inspection – prior to requesting a Pre-Final Acceptance Inspection of the completed facilities by LAWA, all Work and operational systems to be inspected shall be completed by the Design-Builder and accepted by the Design-Builder's Construction Quality Control Manager. The Design-Builder's written request for this inspection shall be made 72 hours in advance. The request will include a list of any known deficiencies and when they will be corrected. If the list is too large or contains too many significant items in the opinion of LAWA, no inspection will be held because of the incompleteness of the Work. Once the

as necessary to ensure adequate quality control. The scheduling and coordinating of all inspection and testing must match the type and pace of Work activity. The Quality Control Program shall state where different personnel will be required for different Work elements, whether design, construction or testing.

5 QUALITY CONTROL INSPECTION REQUIREMENTS

- A. Quality control inspection functions should be organized to provide quality control coverage for all definable features of Construction activities. All inspections shall be documented by the Design-Builder as specified by the Documentation Section of these Project Requirements.
- B. Construction QC Inspections - The Design-Builder shall utilize the following six-point inspection plan to ensure the conformance of the Work performed by the Design-Builder meets the requirements of the Contract Documents:
 - 1. Pre-Work Coordination: Prior to the start of construction Work on the Contract and prior to the start of Work under each separate specification section and prior to the start of Work where a change in a construction operation is contemplated by the Design-Builder and prior to a new subcontractor starting Work, a coordination meeting will be held with the Design-Builder's superintendent, and/or CM staff Construction Quality Control Manager(s), Safety representative(s), the testing laboratory, LAWA, and representatives of all applicable subcontractors and vendors. Prior to the meeting, the Construction Quality Control Manager(s) shall provide LAWA with a meeting agenda for review. The Construction Quality Control Manager(s) shall conduct the meeting and distribute the approved agenda. The Construction Quality Control Manager(s) shall develop and electronically distribute finalized meeting minutes within 24 hours upon completion of the meeting.
 - a. The purpose of the meeting is to ensure that the Design-Builder's personnel have no misunderstandings regarding their safety and quality procedures as well as the technical requirements of the contract. The following items shall be presented and reviewed by the Design-Builder:
 - 1) Contract requirements and specifications
 - 2) Status of shop drawings, certifications, submittals and as-built drawings
 - 3) Testing and inspection program and procedures
 - 4) Design-Builder's Construction Quality Control Program and assigned personnel
 - 5) Familiarity and proficiency of the Design-Builder's and subcontractor's workforce to perform the operation to the required workmanship standards including certifications of installers
 - 6) Safety, security and environmental precautions to be observed
 - 7) Any other preparatory steps dependent upon the particular operation
 - 8) The Design-Builder's means and methods for performing the Work.
 - 2. Initial Inspection:
 - a. Upon completion of a representative sample of a given feature of the Work

and equipment for conformance to the contract documents, and as required by the Project Requirements herein.

- 2) Coordination and Performance of all quality control tests as required by the contract documents and the Project Requirement covering the *Quality Control Testing* herein.

3. Quality Control Leads

- a. In addition to the QC Manager(s), the quality control organization shall consist of the following minimum Lead QC personnel as appropriate for the applicable disciplines of the project:
 - 1) QC Roadway Lead: Professional with ten (10) years minimum field experience in construction of civil works with emphasis on roadways, maintenance of traffic, utilities, and drainage facilities.
 - 2) QC Structures Lead: Professional with ten (10) years minimum field experience in construction of bridges, retaining walls, overhead sign structures, and box culverts.
 - 3) QC Electrical Lead: Professional with ten (10) years minimum field experience in construction of electrical systems, signals, and lighting systems.
 - 4) In addition to the aforementioned qualifications, Design-Builder's QC personnel shall be subject to interview and approval by LAWA.

4. Quality Control Inspectors

- a. In addition to the Quality Control Leads, the quality control organization shall consist of the following minimum Quality Control Inspectors:
 - 1) Roadway/Civil Inspectors: Professional with five (5) years minimum field experience in construction of roadway and civil works.
 - 2) Structures Inspectors: Professional with five (5) years' minimum field experience in construction of bridges and retaining walls.
 - 3) Electrical Inspectors: Professional with five (5) years minimum field experience in construction of electrical systems, signals, and lighting systems.
 - 4) In addition to the aforementioned qualifications, the Design-Builder's Quality Control Inspectors shall be subject to interview and approval by LAWA.

D. Staffing Levels

1. The Design-Builder shall provide sufficient qualified quality control personnel, as required, to monitor the quality of Work for fabrication and construction. LAWA will review Design-Builder staffing levels throughout the Work period. The Design-Builder shall appoint separate people to oversee the administration tasks and the fieldwork. Where material is being produced in a plant for incorporation into the Work, separate plant and field personnel shall be provided at each plant and field placement location

independent testing laboratory is used for implementation of all or part of the Quality Control Program, the laboratory and personnel assigned shall be subject to the qualification requirements of this PR. The organizational chart shall indicate which personnel are Design-Builder employees and which are provided by an outside organization.

C. The quality control organization shall consist of the following minimum personnel:

1. Quality Control Managers

- a. The Design-Builder shall provide dedicated Quality Control Manager(s) to manage the Construction Quality Control Plans and shall be full-time employees of the Design-Builder, or a consultant specializing in quality management engaged by the Design-Builder.
- b. The Construction Quality Control Manager(s) and Designated Alternates shall be a quality professional and have a minimum of ten (10) years of experience in major roadway and bridge construction and at least five (5) years shall be recent responsible quality control management experience on a project of comparable size, complexity and scope as the Work.
- c. The Quality Control Manager(s) shall have full authority to institute all actions necessary for the successful implementation of the Quality Control Program across all disciplines for Construction to ensure compliance with the contract documents. The Quality Control Manager(s) shall report directly to the officer responsible of their respective firm. The Quality Control Managers may not supervise the Quality Control Program on any other project and shall be on-site on a full-time basis, a minimum of forty (40) hours per week, and shall not be the same individual as, nor be subordinate to, the Construction Project Manager or Superintendent.
- d. No Work or testing is to be performed by the Design-Builder -whether during the day or at night – without the Quality Control Manager or his/her designated representative(s) approved by LAWA being present on-site.

2. Qualifications for Quality Control Personnel

- a. The Design-Builder shall provide sufficient number of quality control personnel necessary to adequately implement all elements of the Quality Control Program. These QC personnel shall be either architects, engineers, engineering technicians, or construction inspectors with acceptable qualifications that may be met through a combination of education, training, certifications and experience in their area of expertise.
- b. The Design-Builder shall submit a resume of the experience and qualifications for the proposed Design-Builder's Quality Control Personnel to LAWA for review and approval. A personal interview shall also be required for each proposed candidate. Only qualified personnel will be accepted to perform the Quality Control functions as required herein.
- c. The quality control personnel shall report directly to the Quality Control Manager(s) or his/her designated representative(s) and shall perform the following functions:
 - 1) In-process quality control inspection of all materials, construction, plant,

assembled or manufactured offsite.

13. Construction Quality Control Testing procedures that identify the approved testing agencies, qualifications and experience of personnel, accreditation information and frequency of tests.
 14. Offsite Construction Quality Control Testing procedures for manufacturers-provided testing and reporting.
 15. Controls and procedures providing for periodic calibration of testing and measurement equipment, including unique equipment identification and calibration tracking.
 16. Forms and procedures detailing the Quality Control Daily Inspection Report including recorded data, observations and non-compliant work.
 17. Procedure for identifying defective work and specific alternative actions to resolve the deficiency.
 18. Quality Control requirements to ensure final inspections and project closeout conform to the Contract Documents. See PR 27 (Project Closeout).
 19. Requirements and procedures for integrating and coordinating the Design-Builder's Quality Control activities and LAWA's Quality Assurance activities.
 20. Design-Builder is encouraged to add any additional elements to the Construction Quality Control Plan that he/she deems necessary to adequately control all production and/or construction processes required by this contract.
- C. Approval: The Construction Quality Control Plan must be approved before the start of construction activities. LAWA reserves the right to request revisions of the Quality Control Plan that are necessary to ensure the specified quality of the Work conforms to the contract Documents and the requirements herein. LAWA may interview Quality Control personnel at any time to verify their submitted qualifications.
- D. Changes: The Design-Builder shall submit any requested changes to the Quality Control Plan, including changes in personnel, to LAWA in writing for approval. Proposed changes must be submitted at least 7 days in advance of the desired effective date of the change. No change in the approved Quality Control Plan shall be implemented without LAWA's written approval.

4 QUALITY CONTROL ORGANIZATION

- A. The Design-Builder Quality Control Program shall be implemented by the establishment of a separate quality control team not involved in the production. An organizational chart shall be developed to show all quality control personnel for Construction services and how these integrate with other management/production and construction functions. Resumes for personnel shall be included in the Quality Control Program Plan submittal for approval by LAWA.
- B. The organizational chart shall identify all quality control staff positions by function and shall indicate the total staff required to implement all elements of the Quality Control Program for Construction services for each item of Work. If necessary, different qualified personnel can be utilized for specific functions for different items of Work. If an outside organization or

2. The approved project schedule.
3. The approved submittals schedule.
4. Controls to assure that only the "Approved/Issued/Released for Construction" construction documents are utilized in the Work. This includes provisions for removing superseded versions from the Work area, except where explicitly and prominently marked "Void - For Information Only"; such as to retain annotated installation data.
5. Identify all Quality Control activities, tests and inspections, including off-site source inspections and tests, or design quality control activities that the Design-Builder will perform to ensure conformance to the approved design and Contract Documents.
6. Forms and procedures for grade control of all structures, including the Design-Builder providing and setting deck elevation control points.
7. Procedures for identifying and contractually invoking the applicable technical and quality requirements delineated in the Contract Documents for all vendors supplying materials, parts and services.
8. Plans and procedures for receiving, inspecting and accepting material and equipment. These shall include examination of physical condition and compliance with purchasing requirements, including markings for class type and grade, and conformance of approved submittals. These shall also include provisions for:
 - a. Identifying, tracking, controlling and processing non-conforming items, including notification(s) to LAWA.
 - b. Inspection of materials for authenticity to preclude counterfeit parts, for items and attributes of concern identified by LAWA.
 - c. Verifying for compliance and traceability, maintaining, and turnover to LAWA, certificates of conformance and mill certificates required by Contract Documents or codes or standards invoked, for materials received.
 - d. Identify and plan production and installation processes that directly affect quality and ensure these processes are performed under controlled conditions. Special processes, including at a minimum welding, nondestructive testing, and heat treatment; the results of which cannot be directly verified by subsequent inspection and testing of the product, shall be continuously monitored to ensure the quality of the final product.
9. Requirements for corrective action when quality control and/or acceptance criteria are not met. Corrective action procedures shall include investigation of the root cause of non-conforming Work and determination of action needed to correct non-conforming Work and prevent a recurrence.
10. Technician and inspection staffing levels for each type of operation.
11. Construction Quality Control Inspection procedures that detail minimum qualifications and experience of personnel, applicable recognized standards and frequency of inspection.
12. Offsite Construction Quality Control Inspection procedures for items fabricated,

- K. List of specific QC checklists, standards policies and procedures to be used to verify accuracy and completeness of the Work.
- L. The Design-Builder shall execute the requirements of the Quality Control Plan over the course of the project and provide contemporaneous documentation, or other mutually acceptable records, demonstrating full compliance with the plan.
- M. Any non-compliance shall be addressed by the Design-Builder's Design Professional to LAWA's reasonable satisfaction within a mutually agreed upon time period. Repeated non-compliance and/or any failure to correct non-compliance to LAWA's reasonable satisfaction shall be considered a material breach of this Agreement. Non-compliance reports may be issued by the Design-Builder designated Quality Manager or his designated person, or by LAWA inspection team.
- N. Quality is the Design-Builder's sole responsibility. Neither LAWA's acceptance of the Preconstruction Quality Plan nor any -Quality Assurance Audit shall relieve the Design-Builder of the responsibility to deliver quality of all services provided under this Agreement.
- O. All preconstruction logistics and coordination documents intended for submission to LAWA or outside agencies, for review, shall be reviewed and signed off by the appropriate Preconstruction Quality Control Manager prior to submission.

3 DESCRIPTION OF CONSTRUCTION QUALITY PROGRAM

A. General Description

The Design-Builder shall establish a Construction Quality Control Program and organization to perform the necessary quality control of all items of Work required by the technical specifications, including those performed by subcontractors, suppliers and testing agencies. This Construction Quality Control Program shall ensure conformance to applicable contract documents and project requirements with respect to materials, workmanship, construction, finish, and functional performance. The Construction Quality Control Program will be guided by the Project Quality Control Plan.

The Construction Quality Control Plan shall be effective for controlling all construction Work performed under this Contract and shall specifically include methods, procedures and resources, surveillances and tests required by the technical specifications, in addition to other requirements of the Contract Documents and any other activities deemed necessary by the Design-Builder to establish an effective level of quality control.

B. Construction Quality Control Plan

The written Quality Control Plan shall be submitted to LAWA for review and acceptance at least thirty (30) calendar days before onsite activities are scheduled to begin.

The Quality Control Plan shall be organized to address, as a minimum, the following items:

1. Quality control organization and staffing levels for positions expected to be utilized during the construction phase for and construction phase.

7. **Construction Employee Parking Locations.** DESIGN-BUILDER's designated employee parking areas shall be as shown on their plans within their approved areas, including commercial/private parking lots and/or existing shuttle services, if used. If DESIGN-BUILDER chooses to use shuttle buses, they shall operate from the designated employee parking areas to the work site. Shuttle buses shall comply with all applicable California Air Resources Board (CARB) and SCAQMD rules and regulations, and LAWA's Alternative Fuel Policy. As parking is at a premium within the Project Site and surrounding areas, carpooling is strongly encouraged. DESIGN-BUILDER shall ensure that all employees, including those of subcontractors, vendors, suppliers, etc. at all tiers, park in the designated parking locations and not on city streets, nor in nearby neighborhoods. A complete description of this operation shall be included within the DESIGN-BUILDER's TMP. All construction personnel will be required to attend an airport project-specific orientation meeting that will cover where to park, where staging areas are located, construction policies, etc.
 8. **Engineered Traffic Control Plans.** DESIGN-BUILDER shall provide and implement an Engineered Traffic Control Plan, subject to LAWA review, comment, and approval, for any lane-closure or lane-restriction in the CTA, or any of the roads or ramps leading in or out of the CTA (Sepulveda Blvd, Century Blvd, World Way, Center Way, East Way, West Way, etc.). Traffic Control Plans shall be prepared, signed and stamped by a licensed Traffic Engineer, and shall be included in the Area Shutdown Request (ASR) at least 30 days prior to the requested shutdown start date.
- B. In addition to the mitigation measures identified above, DESIGN-BUILDER is required to comply with all AHJ guidelines and regulations.

4. **STOCKPILES**

A. **Construction Material Stockpiles Locations and Maintenance:**

1. All Stockpile locations require pre-approval by LAWA. Stockpile locations shall be accessed by construction vehicles with minimal disruption to adjacent public streets. The same applies for rock-crushing and concrete batch plant operations if either or both of those occur as part of Project construction (Note: Rock-crushing and concrete batch plant operations at LAX are subject to special permit requirements that must be coordinated through LAWA's Environmental Compliance Group)..
2. DESIGN-BUILDER shall seal the surface of all stockpiles of rock and earth materials that are not being actively constructed or mined with a dust control product. Treatment may include water spray via DESIGN-BUILDER-provided irrigation systems, proprietary non-toxic crusting agents, bituminous prime coat for dust control, anchored geotextile fabric or tarps, erosion control fabric, seeding, or other methods approved by LAWA. The method employed shall be appropriate for the expected duration of, and the material in, the stockpile. Throughout all stages of the project, DESIGN-BUILDER shall maintain the dust control seal to meet the requirements of this section. DESIGN-BUILDER shall submit the proposed method of sealing the stockpile area to LAWA for approval prior to its use. All costs of sealing, and maintaining stockpile seals, shall be considered incidental to other items and no separate measurement or payment will be made.
3. DESIGN-BUILDER shall use operational controls to reduce the dust potential of stockpiles and comply with applicable FAA, state and local environmental regulations. These operational controls may include, but are not limited to:
 - a. Locating stockpiles behind natural or manufactured windbreaks.
 - b. Locating the working area on the leeward side of the active piles.

- c. Using stone ladders, telescopic chutes, stacker conveyors or other mechanical devices to limit the drop of fall and exposure to wind when the stockpile is being constructed.
- d. Limiting the height of the stockpile in conformance to an approved FAA Airspace Determination (7460).
- e. Watering as necessary for dust control, a minimum of three times per day or as directed by LAWA.
- f. Minimizing vehicle traffic and vehicle speeds in and around stockpiles.
- g. Avoiding steep sides or faces on stockpiles.
- h. Arranging stockpiles in such a direction to minimize wind erosion.

5. AIR POLLUTION CONTROL

A. DESIGN-BUILDER shall not discharge smoke, dust, equipment exhaust, or any other air contaminants into the atmosphere in such quantity as will violate any federal, state, or local regulations. DESIGN-BUILDER shall also abate dust nuisance by cleaning, sweeping, and spraying with water or other means as deemed necessary. The use of water shall conform to the water pollution control requirements contained in this contract.

B. Dust Control

1. The DESIGN-BUILDER shall be responsible for continuously removing from the site, and haul roads on and off the airport, excavated materials and debris resulting from the work. Vehicles exiting the Site shall have all dirt clods and mud removed from their tires prior to leaving the site.
2. The DESIGN-BUILDER shall continuously contain dust and debris and remove it from the Site at intervals sufficient to prevent dissemination outside work limits and as directed by LAWA. DESIGN-BUILDER shall use adequate watering techniques to alleviate accumulation of construction-generated dust.
 - a. The DESIGN-BUILDER shall be responsible for containment of dust emission from all construction, transport, storage, or handling activities, in accordance with SCAQMD Rule 403: Fugitive Dust.
 - b. The DESIGN-BUILDER shall be responsible for the continuous clean-up of all construction-related dirt on approach/exit routes to/ from the Site.
 - c. The DESIGN-BUILDER shall pave all construction access roads at least 100 feet onto the site (i.e., unpaved construction areas) from the main road(s).
 - d. During construction, DESIGN-BUILDER shall demonstrate that all ground surfaces are covered or treated sufficiently to minimize fugitive dust emissions.
 - e. The DESIGN-BUILDER shall be responsible for all roadways, driveways, sidewalks, etc., installed as part of the project being completed as soon as practical; in addition, building pads should be laid as soon as practical after grading.
 - f. The DESIGN-BUILDER shall locate rock-crushing operations and construction material stockpiles for all LAX-related construction in areas away from LAX-adjacent residents, to the extent possible, to reduce impacts from emissions of fugitive dust.
 - g. The DESIGN-BUILDER shall furnish trash bins with a closed cover for all debris resulting from construction. All debris shall be placed in trash bins daily. Trash bins, including large dumpsters, shall be covered at the end of each work day, during rain

- events, and/or when not actively used. Forms or false work that is to be reused shall be stacked neatly as they are being removed. Forms and false work that are not to be reused shall be disposed of immediately upon their removal.
- h. The DESIGN-BUILDER shall submit to LAWA a monthly log showing daily fugitive dust mitigation measures. The log shall specify the subject area, mitigation measures utilized, frequency of control, and other relevant information.
3. The DESIGN-BUILDER shall furnish and operate self-loading motor sweepers with spray nozzles for the purpose of keeping paved areas acceptably clean wherever construction, including restoration, is incomplete or as requested by LAWA.
- a. DESIGN-BUILDER shall keep available at the job site, at all times, a minimum of two (2) self-loading operational vacuum motor sweeper, ELGIN Broom Bear or LAWA-approved equivalent, and at least one (1) water truck to maintain dust control and cleaning of pavements affected by DESIGN-BUILDER operations. DESIGN-BUILDER shall use this equipment as needed to keep pavement areas swept clean of debris, to the satisfaction of LAWA. Sweepers shall be kept in good working condition and stationed within work areas to provide swift response as needed.
 - b. Motor sweepers shall be CNG-fueled, unless otherwise approved by LAWA.
4. DESIGN-BUILDER shall post a publicly visible sign(s) with the telephone number and person to contact regarding dust complaints; this person is required to respond and take corrective action within twenty-four (24) hours.
5. DESIGN-BUILDER shall implement additional dust controls for activities that generate dust, like concrete saw cutting, joints cleaning/widening, etc., or as required by LAWA.
6. Reclaimed water shall be used for dust control, to the maximum extent practicable. If/where feasible, DESIGN-BUILDER shall install raised water tank (Water Buffalo) and connect to reclaimed water lines where available and as directed by LAWA.

6. AIR QUALITY

- A. The DESIGN-BUILDER shall, to the extent feasible, have construction employees commute during off-peak hours.
- B. The DESIGN-BUILDER shall utilize an on-site rock crushing facility, when feasible, during construction to reuse rock/concrete and minimize off-site truck haul trips.
- C. The design, installation, and operation of any concrete batch plant or rock-crusher at LAX, including project-related LAWA-owned properties, by DESIGN-BUILDER, shall comply with the "Construction and Operation Compliance Manual" dated October 25, 2024 or as subsequently updated, and all applicable requirements of the current SCAQMD Title V Permit for LAX.
- D. The DESIGN-BUILDER shall make access available for on-site lunch trucks during construction, as feasible and consistent with requirements pertaining to airport security, to minimize off-site worker vehicle trips.
- E. The DESIGN-BUILDER shall suspend use of all construction equipment during a second-stage smog alert in the immediate vicinity of LAWA.
- F. Tampering with construction equipment to increase horsepower or to defeat emission control devices is prohibited.
- G. The DESIGN-BUILDER shall prohibit construction diesel vehicles or equipment from idling in excess of the idling restrictions as defined in California Air Resources Board (CARB) Vehicle

Idling Rule (i.e., idling no more than five (5) minutes). DESIGN-BUILDER shall advise drivers and operators of these requirements during subcontractor onboarding and/or orientation, remind them on a daily basis, and post signs in appropriate places indicating the CARB Vehicle Idling Rule. Exemptions may be granted for safety-related and operational reasons, as defined by CARB or as approved by LAWA. DESIGN-BUILDER and their subcontractors shall have policies and procedures in place for compliance with the CARB Idling Rule and a copy of such shall be submitted within thirty (30) days of NTP to LAWA for approval.

- H. The DESIGN-BUILDER shall make every effort to utilize grid-based electric power at any construction site, where feasible. Grid-based power can be from a direct hookup or a tie-in to electricity from power poles. If diesel-fueled generators are necessary, generators with engines greater than 50 horsepower must meet the requirements of Section 6.N below.
- I. The DESIGN-BUILDER shall designate a person or persons to effectively ensure the implementation of all components of the construction-related air quality/pollutions control measures through direct inspections, record reviews, investigations of complaints, and the timely communication to all concerned parties. DESIGN-BUILDER shall provide LAWA with the name and cell phone number of that person(s), and shall provide LAWA with updated information within 5 working days should that person(s) and/or cell number change at any time. That person(s) can be the same as required in Section 16.B below.
- J. DESIGN-BUILDER shall prepare and submit to LAWA for approval, within thirty (30) days from Notice to Proceed, a list of all equipment to be used, including Subcontractors' equipment, necessary to complete the Work. Said list shall include, but not limited to equipment type, manufacturer, equipment model, model year, equipment identifying number (EIN/ PERP, License), fuel source and emission characteristics. The equipment list shall be updated monthly and submitted to LAWA.
- K. All diesel-fueled equipment used for construction shall be outfitted with the best available emission control devices, where technologically feasible, primarily to reduce emissions of diesel particulate matter (PM), including fine PM (PM_{2.5}), and secondarily, to reduce emissions of NO_x. This requirement shall apply to diesel-fueled off-road equipment (such as construction machinery), diesel-fueled on-road vehicles (such as trucks), and stationary diesel-fueled engines (such as electric generators). (It is unlikely that this measure will apply to equipment with Tier 4 engines, as these engines typically already incorporate the best available emission control devices.) The emission control devices utilized in construction equipment shall be verified or certified by CARB or US Environmental Protection Agency for use in on-road or off-road vehicles or engines. For vehicles and/or equipment outfitted with CARB approved BACT devices, the BACT device shall be approved by CARB as specified on the website <http://www.arb.ca.gov/msprog/ordiesel/vdecs.htm>. A copy of each unit's certified BACT documentation, and each unit's CARB or SCAQMD operating permit, shall be provided at the time of mobilization of each applicable unit of equipment. This requirement applies to diesel equipment owned and/or operated by the DESIGN-BUILDER and their subcontractors (including all sub-tiers).
- L. The DESIGN-BUILDER and their subcontractors (including all sub-tiers) shall use renewable diesel fuel in proposed project construction off-road equipment and on-site, on-road trucks, for at least 90 percent of diesel fuel demand.
- M. On-road medium-duty and larger diesel-powered trucks used on LAX construction projects with a gross vehicle weight rating (GVWR) of at least 14,001 pounds shall, at a minimum, comply with USEPA 2010 on-road emissions standards for PM₁₀ and NO_x. DESIGN-BUILDER requirements to utilize such on-road haul trucks or the next cleanest vehicle

available will be subject to the provisions of section 6.O below. For trucks subject to this requirement, DESIGN-BUILDER shall provide documentation, such as a copy of the vehicle registration or other such government document, confirming the model year of the truck prior to its use on the project. The required documentation must be submitted to the LAWA MMRP Monitor assigned to the project, and is subject to review and approval by the Monitor prior to the truck's use at the site (i.e., the truck cannot be used at the site without the Monitor's prior approval). LAWA has up to 21 days to review and respond to such submittals. Submittals with incomplete or inaccurate information will be rejected or returned to DESIGN-BUILDER as "Revise and Resubmit." It is recommended that DESIGN-BUILDER coordinate with LAWA's Mitigation Monitor(s) regarding submittal requirements and process prior to making a first submittal.

- N. All off-road diesel-powered construction equipment greater than fifty (50) horsepower shall meet, at a minimum, USEPA Tier 4 (final) off-road emissions standards. DESIGN-BUILDER requirements to utilize tier 4 (final) equipment or the next cleanest equipment available will be subject to the provisions of section 6.O below. For off-road equipment subject to this requirement, DESIGN-BUILDER shall provide documentation, such as available through the CARB DOORS registration specific to such equipment and CARB Executive Orders specific to engine family numbers, confirming the engine tier level of the equipment prior to it being brought onto LAWA property. The required documentation must be submitted to the LAWA MMRP Monitor assigned to the project, and is subject to review and approval by the Monitor prior to the equipment being brought onto LAWA property (i.e., the project-related equipment cannot be brought onto LAWA property without the Monitor's prior approval). LAWA has up to 21 days to review and respond to such submittals. Submittals with incomplete or inaccurate information will be rejected or returned to the DESIGN-BUILDER as "Revise and Resubmit." It is recommended that the DESIGN-BUILDER coordinate with LAWA's Mitigation Monitor(s) regarding submittal requirements and process prior to making a first submittal.
- O. Exceptions. The on-road truck and off-road construction equipment requirements set forth above in Paragraphs 6.L and 6.M of this section shall apply unless any of the following circumstances exist and the DESIGN-BUILDER or their Subcontractor provides a written finding consistent with project contract requirements and acceptable to LAWA that:
 - 1. DESIGN-BUILDER or their subcontractor does not have the required types of on-road trucks or off-road construction equipment within its current available inventory and intends to meet the applicable requirements of the Paragraphs 6.M and 6.N. as to a particular vehicle or piece of equipment by leasing or short-term rental, and the DESIGN-BUILDER or their Subcontractor has attempted in good faith and due diligence to lease the vehicle or equipment that would comply with these measures, but that vehicle or equipment is not available for lease or short-term rental within one hundred twenty (120) miles of the project site, and the DESIGN-BUILDER has submitted documentation to LAWA that the requirements of this exception provision apply.
 - 2. The DESIGN-BUILDER or their subcontractor has been awarded funding by SCAQMD or another agency that would provide some or all of the cost to retrofit, repower, or purchase a piece of equipment or vehicle, but the funding has not yet been provided due to circumstances beyond the DESIGN-BUILDER or their subcontractor's control, and the DESIGN-BUILDER or their subcontractor has attempted in good faith and due diligence to lease or short-term rent the equipment or vehicle that would comply with Paragraphs 6.M and 6.N , as applicable, but that equipment or vehicle is not available for lease or short-term rental within one hundred twenty (120) miles of the project site, and the DESIGN-BUILDER has submitted documentation to LAWA showing that the requirements of this exception provision apply.

3. DESIGN-BUILDER or their Subcontractor has ordered a piece of equipment or vehicle to be used on the construction project in compliance with Paragraphs 6.M and 6.N , as applicable, at least sixty (60) days before that equipment or vehicle is needed at the project site, but that equipment or vehicle has not yet arrived due to circumstances beyond the DESIGN-BUILDER or their subcontractor's control, and the DESIGN-BUILDER or their Subcontractor's has attempted in good faith and due diligence to lease or short-term rent a piece of equipment or vehicle to meet the applicable requirements of Paragraphs 6.M and 6.N , but that equipment or vehicle is not available for lease or short-term rental within one hundred twenty (120) miles of the project, and the DESIGN-BUILDER has submitted documentation to LAWA showing that the requirements of this exception provision apply.
4. Construction-related diesel equipment or vehicle will be used on the project site for fewer than twenty (20) days per calendar year. DESIGN-BUILDER or their Subcontractor shall not consecutively use different equipment or vehicles that perform the same or a substantially similar function in an attempt to use this exception to circumvent the intent of Paragraphs 6.M and 6.N, as applicable.
5. Documentation of good faith efforts and due diligence regarding the above exceptions shall include written record(s) of inquiries (i.e., phone log[s]) to at least three (3) leasing/rental companies that provide construction-related on-road trucks of the type specified in Paragraph 6.M above (i.e., medium-duty and larger diesel-powered trucks with a gross vehicle weight rating of at least 14,001 pounds) or diesel-powered off-road construction equipment such as the types to be used by the DESIGN-BUILDER or their subcontractor, documenting the availability/unavailability of the required types of trucks/equipment. LAWA will, from time-to-time, conduct independent research and verification of the availability of such vehicles and equipment for lease/rent within a one hundred twenty (120) mile radius of LAX, which may be used in reviewing the acceptability of the DESIGN-BUILDER or their subcontractor's good faith efforts and due diligence.

In any of the situations described above, DESIGN-BUILDER or their subcontractor shall provide the next cleanest piece of equipment or vehicle as provided by the step-down schedules in Table A for Off-Road Equipment and Table B for On-Road Equipment.

Continued on next page

Table A Off-Road Compliance Step Down Schedule*		
<u>Compliance Alternative</u>	<u>Engine Standard</u>	<u>CARB-verified DECS (VDECS)</u>
1	Tier 4 <i>interim</i>	N/A**
2	Tier 3	Level 3
3	Tier 2	Level 3
4	Tier 1	Level 3
5	Tier 2	Level 2
6	Tier 2	Level 1
7	Tier 3	Uncontrolled
8	Tier 2	Uncontrolled
9	Tier 1	Level 2
** Tier 4 (interim or final) or 2007 model year equipment not already supplied with a factory-equipped diesel particulate filter shall be outfitted with Level 3 VDECS.		
Equipment less than Tier 1, Level 2 shall not be permitted.		

Table B On-Road Compliance Step Down Schedule*		
<u>Compliance Alternative</u>	<u>Engine Model Year</u>	<u>CARB-verified DECS (VDECS)</u>
1	2007	N/A**
2	2004	Level 3
3	1998	Level 3
4	2004	Uncontrolled
5	1998	Uncontrolled
** 2007 Model Year equipment not already supplied with a factory-equipped diesel particulate filter shall be outfitted with Level 3 VDECS.		
Equipment with a model year earlier than Model Year 1998 shall not be permitted.		

**How to use Table A and Table B: For example, if Compliance Alternative #1 is required by this policy but DESIGN-BUILDER cannot obtain an off-road vehicle that meets the Tier 4 interim standard (Compliance Alternative #1 in Table A) and meets one of the above exceptions, then DESIGN-BUILDER shall use a vehicle that meets the next compliance alternative (Compliance Alternative #2) which is a Tier 3 engine standard equipped with a Level 3 VDECS. Should DESIGN-BUILDER not be able to supply a vehicle with a Tier 3 engine equipped with a Level 3 VDECS in accordance with Compliance Alternative #2 and has satisfied the requirements of one of the above exceptions as to DESIGN-BUILDER's ability to obtain a vehicle meeting Compliance Alternative #2, DESIGN-BUILDER shall then supply a vehicle meeting the next compliance alternative (Compliance Alternative #3), and so on. If DESIGN-BUILDER is proposing an exemption for on-road equipment, the step-down schedule in Table B should be used. DESIGN-BUILDER must demonstrate that it has satisfied one of the exceptions listed in the selected Compliance Alternative # before it can use a subsequent Compliance Alternative. The goal of this requirement is to ensure that DESIGN-BUILDER has exercised due diligence in supplying the cleanest fleet available.*

- P. Nothing in the above specifications shall require an emissions control device (i.e., VDECS) that does not meet OSHA standards.
- Q. **NON-ROAD MOBILE SOURCE CONTROLS** DESIGN-BUILDER shall prohibit staging or parking of construction vehicles (including workers' vehicles) on streets in residential areas or adjacent to schools, daycare centers, hospitals, or places of worship.
- R. **STATIONARY POINT SOURCE CONTROLS** DESIGN-BUILDER shall use a combination of electricity from power poles and electricity from portable diesel- or gasoline-fueled generators using "cleaner burning diesel" fuel and exhaust emission controls for his electrical energy requirements. DESIGN-BUILDER shall obtain approval of LAWA for the use of internal combustion engine water pumps, power generators, air compressors and other related construction equipment when an option exists to utilize grid power or electric powered equipment. In accordance with SCAQMD Rule 431.2, all diesel construction equipment shall use only Ultra Low Sulfur Diesel fuel (15 ppm or lower).
- S. Coating and paving materials shall be formulations with low volatile organic compound (VOC) levels, consistent with the requirements of SCAQMD Rule 1113.

7. NOISE CONTROL

- A. The DESIGN-BUILDER shall provide a Construction Noise Control Plan (CNCP) in each of their design-package submittals, and shall implement and maintain the plan throughout all stages of the project. The CNCP shall describe how the DESIGN-BUILDER will manage construction related noise to comply with noise provisions of the City of Los Angeles Municipal Code (Chapter XI Article 1 and Section 41.40) and the requirements of this contract. The intent of the CNCP is to control noise impacts to noise-sensitive areas. Noise-sensitive areas are defined as residences, apartments, hotels, schools, day care centers, places of worship, and hospitals.
- B. In particular, the CNCP shall address construction equipment noise at noise-sensitive receptors where construction noise impacts may be significant. Such noise-sensitive receptors include, but may not be limited to, the Residence Inn by Marriott Los Angeles LAX/Century Boulevard, Sheraton Gateway Los Angeles Hotel, H Hotel/Homewood Suites by Hilton Los Angeles International Airport, Hyatt Regency Los Angeles International Airport, and Courtyard Los Angeles LAX/Century Boulevard. (Note: Those are the hotel names/chains as of October 2020. This mitigation requirement still applies to those facilities if the names/chains subsequently change). The noise control plans shall be approved by LAWA prior to

implementation. The noise control plans shall calculate the total maximum noise level (in CNEL) associated with construction of each Project component, as well as cumulative noise impacts that account for Project-related activities that would occur concurrently with construction of other Project components and construction of other nearby LAX projects. If the calculated construction-related noise levels indicate an increase of 5 dBA over the existing exterior noise level at any noise-sensitive receptor, the noise control plan shall specify provisions and/or measures to be implemented during construction that will attenuate construction noise levels to be less than 5 dBA over the existing exterior noise level. The noise control plans shall include a section describing noise monitoring equipment, locations and methods for establishing a representative baseline exterior noise level. Potential noise attenuation measures could include, but are not limited to, noise curtains, noise blankets, temporary sound walls, or their equivalent during construction. The noise control plans shall include a provision that states that, if noise levels exceed the 5 dBA increase, LAWA will require the contractor to implement additional noise attenuation measures until the noise increase is less than 5 dBA. To verify efficiency of the construction noise attenuation measures, noise measurements shall be taken at the closest noise-sensitive receptors to confirm that the attenuated construction noise levels are less than 5 dBA over the existing exterior noise level.

- C. Construction Staging. Construction operations shall be staged as far from noise-sensitive uses as feasible. Loading and unloading of heavy construction materials/equipment shall be located on-site and away from noise sensitive uses to the extent feasible.
- D. Stationary source equipment that is flexible with regard to relocation (such as generators and compressors) shall be located at the greatest distance practical from sensitive land uses, and unnecessary idling (i.e., all nonessential idling of construction equipment shall be restricted to five minutes or less pursuant to Section 2449 *et seq.* of the California Code of Regulations) of equipment shall be prohibited.
- E. Use "quiet-design" air compressors and other stationary noise sources when such technology/equipment is commercially available.
- F. Construction equipment not complying with the requirements of the CNCP shall be replaced with compliant equipment except where specifically approved by LAWA. DESIGN-BUILDER shall remedy environmental malfunctions within 24 hours of discovery of such or the equipment shall be removed from the site.
- G. The timing and/or sequence of the noisiest on-site construction activities shall avoid sensitive times of the day, as feasible (9:00 p.m. to 7:00 a.m. Monday - Friday; 6:00 p.m. to 8:00 a.m. Saturday; and anytime on Sunday and Holidays).
- H. The above requirements shall not relieve DESIGN-BUILDER from the responsibility for complying with local ordinances regulating noise level should they be more stringent.

8. SEWAGE SPILL PREVENTION AND EMERGENCY RESPONSE PLAN

- A. The DESIGN-BUILDER shall create, provide, maintain and implement a Sewage Spill Prevention and Emergency Response Plan. The plan shall address implementation of measures to prevent sewage spills; procedures for spill control and containment, notifications, emergency response, and cleanup; and spill and damage reporting. Plan will also need to comply with Bureau of Engineering Master Specification - Section 01563 Pollution Control - Sewage Spill Prevention And Response Requirements (Specification can be found on BOE website).
- B. The plan shall account for all storm drain systems and water courses within the vicinity of the Work which could be affected by a sewage spill. Catch basins that could receive spilled

sewage shall be identified. Unless otherwise specified in the specifications, these catch basins shall be sealed prior to operating the bypass and pumping system. DESIGN-BUILDER shall remove all material used to seal the catch basins when the bypass and pumping system operations are complete.

- C. The DESIGN-BUILDER shall be fully responsible for containing any sewage spillage, preventing any sewage from reaching a watercourse, recovery, and legal disposal of any spilled sewage, any fines or penalties associated with the sewage spilled imposed upon by LAWA and/or the DESIGN-BUILDER by jurisdictional regulatory agencies, and any other expenses or liabilities related to the sewage spill.
- D. Sanitation. DESIGN-BUILDER shall provide and maintain enclosed toilets, with secondary containment, for the use of employees engaged in the work. These accommodations shall be maintained in a neat and sanitary condition. They shall also comply with all applicable laws, ordinances, and regulations pertaining to public health and sanitation of dwellings and camps.
- E. Wastewater shall not be interrupted. Should DESIGN-BUILDER disrupt existing sewer facilities, sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system following all applicable codes.

9. WATER POLLUTION CONTROL

- A. The DESIGN-BUILDER shall conform to all applicable local, state, and Federal regulations and laws pertaining to water pollution control. DESIGN-BUILDER shall conduct and schedule its operations, and follow and implement best management practices, in such a manner as to prevent water pollution, including that by introducing sediments into the receiving water, as defined by National Pollutant Discharge Elimination System (NPDES) permit requirements.
- B. When required, the DESIGN-BUILDER shall obtain permits for erosion and water pollution control from the appropriate jurisdictional agency before the start of construction.
- C. Construction activities at LAX are subject to the requirements of the LAWA Guidance Manual for Construction Storm Water Pollution Prevention, as can be found at <https://www.lawa.org/-/media/lawa-web/environment/files/final-master-lawa-guidance-manual.ashx>.
- D. Work shall be in compliance with the requirements of the NPDES permit for the City of Los Angeles (NPDES Permit No. CAS004001), including the Los Angeles Standard Urban Stormwater Mitigation Plan (SUSMP) and the City's Low Impact Development (LID) Ordinance. Guidance on NPDES, SUSMP, and LID can be found on the City of Los Angeles' Stormwater website at <http://www.lastormwater.org>.
- E. In addition to complying with the applicable requirements of the NPDES permit requirements, DESIGN-BUILDER shall also conform to the following requirements:
 - 1. Sediments shall not be discharged to a storm drain system or receiving waters.
 - 2. Sediments generated on the work site shall be contained on the work site using appropriate Best Management Practices (BMPs).
 - 3. No construction-related materials, waste, spill, or residue shall be discharged from the Work site to streets, drainage facilities, receiving waters, or adjacent property by wind or runoff unless such discharge is in compliance with regulatory agencies requirements.
 - 4. Non-storm water runoff from equipment, vehicle washing, or any other activity shall be contained within the work site using appropriate BMP.
 - 5. Erosion shall be prevented. Erosion susceptible slopes, shall be covered, planted, or otherwise protected in a way that prevents discharge from the work site.

10. BEST MANAGEMENT PRACTICES

- A. The DESIGN-BUILDER shall create, provide, maintain and implement a SWPPP for the project.
- B. The DESIGN-BUILDER shall provide their SWPPP to LAWA for review and approval at least thirty (30) days prior to the start of construction or soil disturbing activities. The SWPPP shall be prepared in accordance with the requirements of the LAWA Guidance Manual for Construction Storm Water Pollution Prevention, as can be found at <https://www.lawa.org/-/media/lawa-web/environment/files/final-master-lawa-guidance-manual.ashx>.
- C. The DESIGN-BUILDER shall have a Qualified SWPPP Developer (QSD) design BMPs and implement and maintain such BMPs as are relevant to the work, as specified in the NPDES permit requirement.
- D. The DESIGN-BUILDER shall be responsible throughout the duration of the contract for installing, constructing, inspecting, maintaining, removing and disposing of BMPs as needed and/or as directed by LAWA for wind erosion control, tracking control, erosion and tracking control, non-storm water control, and waste management and materials pollution control. Unless otherwise directed by LAWA, DESIGN-BUILDER shall be responsible for BMP implementation and maintenance throughout any temporary suspension of the Work.
- E. DESIGN-BUILDER shall be responsible throughout the duration of the Contract for conducting the inspections specified in the Construction SWPPP, including, but not limited to, weekly inspections, quarterly inspections, and storm-related inspections, and shall prepare the associated inspection forms/reports. Any BMP deficiencies identified in the inspections or brought to the attention of the DESIGN-BUILDER by LAWA must be addressed/corrected within 72 hours.
- F. All projects, regardless of size, shall implement good housekeeping BMPs to reduce the discharge of pollutants from construction sites and/or construction staging and laydown areas to the maximum extent practicable:
 1. Eroded sediments and other pollutants must be retained on site and may not be transported from the Site via sheet flow, swales, area drains, or natural drainage.
 2. Stockpiles of earth and other construction-related materials must be protected from being transported from the Site by water and/or wind.
 3. Fuels, oils, solvents, and other toxic substances originating from DESIGN-BUILDER's operations shall not be allowed to enter the ground water or be placed where they will enter a live stream, channel, drain, or other water conveyance facility. Spills may not be washed into the live streams, channels, drains, or other water conveyance facilities.
 4. Such features as drainage gutters, slope protection blankets, and retention basins shall be constructed concurrently with other work and at the earliest practical time. DESIGN-BUILDER shall exercise care to preserve vegetation beyond the limits of construction.
 5. Excess or waste concrete may not be washed into the public way, or any drainage system, onto soil. Provisions shall be made to retain concrete wastes on-site within appropriate storage/containment facility or system, such as roll-off bins specifically designed for such purpose (i.e., bins for storage of concrete waste wash water shall be designed, maintained, and monitored daily to avoid any leakage) or concrete washout pits that are properly designed, constructed, maintained, and monitored, until it can be appropriately disposed of or recycled.
 6. Trash and construction-related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.

7. Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public ways. Accidental deposits must be swept up immediately and may not be washed down by rain or by any other means.
 8. After the completion of the work, the site shall be cleared of debris and restored to a condition equal to or better than that existing before construction.
 9. If utilized, DESIGN-BUILDER shall install fiber rolls along the toe of all slopes, face of slopes, and at the grade break of exposed slopes. Obstructions, including rocks, clods, and debris greater than one-inch in diameter, shall be removed from the ground before placing fiber rolls. DESIGN-BUILDER shall repair fiber rolls within twenty-four (24) hours of discovering damage. Fiber rolls, if used, shall be natural, fiber-wrapped (burlap/cotton) rolls. Monofilament, plastic-wrapped fiber rolls are not allowed on this project.
- G. The DESIGN-BUILDER shall comply with the SWRCB Order No. 2022-0057-DWQ (Construction Activities Storm Water General Permit) and all its amendments. DESIGN-BUILDER shall determine, in consultation with LAWA, the risk level for the Site in accordance with SWRCB Order No. 2022-0057-DWQ and determine which requirements are applicable.
- H. Compliance with SWRCB Order No. 2022-0057-DWQ, may include, but is not limited to the following:
1. Prepare all permit registration documents.
 2. Have a qualified SWPPP developer, as defined in SWRCB Order No. 2022-0057-DWQ, develop a site-specific SWPPP.
 3. Submit SWPPP to LAWA for review and approval.
 4. Implement the SWPPP in accordance with SWRCB Order No. 2022-0057-DWQ (and all its amendments) requirements, including, but not limited to necessary and appropriate site monitoring by a Qualified SWPPP Practitioner (QSP) as defined in Order No. 2009-009-DWQ, and filing of required reports and notifications via Stormwater Multiple Application and Report Tracking System (SMARTS) (in consultation with LAWA).
 5. Assist in preparation of a Notice of Termination (NOT) upon completion of said construction work, fulfill all post-construction requirements under SWRCB Order No. 2022-0057-DWQ, and coordinate with LAWA the filing of the NOT via SMARTS. Note: For the revegetation of areas graded or disturbed during construction that are not subsequently paved or otherwise permanently stabilized as part of the contract, DESIGN-BUILDER is responsible for the successful establishment of the revegetation (i.e., at least 70 percent plant coverage), as well as any other applicable post-construction requirements, in order to be relieved of the SWPPP responsibilities including, but not limited to, ongoing BMP maintenance, inspections, and reporting.
 6. Failure to comply with SWRCB Order No. 2022-0057-DWQ and all its amendments may subject discharges to penalties imposed by the State. Dischargers may become liable to pay up to ten thousand dollars (\$10,000) a day pursuant to California Water Code section 13385, and another penalty of a minimum of one thousand dollars (\$1,000) pursuant to sections 13399.25-3399.43.
 - I. Should the DESIGN-BUILDER violate any of the provisions of this subsection, or if pollution occurs in the work area for any reason, DESIGN-BUILDER shall immediately notify LAWA. In addition, DESIGN-BUILDER shall, within ten (10) days, submit written confirmation to LAWA describing the incident and corrective actions taken. DESIGN-BUILDER shall also comply with all discharge reporting requirements of SWRCB Order

No. 2022-0057-DWQ. If pollution, for whatever reason, is detected by LAWA before notification by DESIGN-BUILDER, the required written confirmation shall also include any explanation of why DESIGN-BUILDER had not notified LAWA.

11. DEWATERING

- A. DESIGN-BUILDER shall prepare, provide, maintain and implement a dewatering plan as necessary for construction of the work. Dewatering shall be performed in conformance with all applicable local, state and federal laws and permits issued by jurisdictional regulatory agencies. Permits necessary for treatment and disposal of accumulated water shall be obtained by the DESIGN-BUILDER. Accumulated water shall be treated prior to disposal if required by their SWPPP and/or permit.
- B. The DESIGN-BUILDER's dewatering Plan shall identify the proposed location, type and size of dewatering devices and related equipment, including the size and type of materials composing the collection system, retainage system, treatment system (if required), and proposed disposal locations. The Plan shall include working drawings and supporting information detailing its proposed methodology of dewatering, treatment and disposal of accumulated water.
- C. If the proposed disposal location is a sanitary sewer, DESIGN-BUILDER shall submit to LAWA written evidence of permission previously granted from the regulatory agencies. If the proposed disposal location is a storm drain system or receiving body of water, the DESIGN-BUILDER shall submit written evidence of permission granted from appropriate regulatory agencies for usage of the storm drain system.

12. DRAINAGE CONTROL

The DESIGN-BUILDER shall prepare, provide, maintain and implement a Drainage Control Plan to ensure that storm and drainage water does not pond due to the temporary impacts to existing drainage facilities (blockages, removals, etc.). DESIGN-BUILDER shall provide temporary methods that allow for the passage of storm and drainage water in a manner equivalent to the existing drainage system, with provisions for water quality BMPs appropriate to the temporary methods.

13. RECYCLING AND SOLID RESOURCES MANAGEMENT

- A. The DESIGN-BUILDER shall recycle a minimum of eighty-five percent (85%) of waste materials generated during construction and demolition. Waste materials to be recycled may include, but are not limited to, asphalt, concrete, drywall, steel, aluminum, ceramic tile, and architectural details. The required recycling/reduction of construction and demolition waste can be accomplished either directly onsite by DESIGN-BUILDER (i.e., onsite crushing and reuse of concrete waste, as applicable) or by taking project-related waste to a City certified construction and demolition waste processor or combination thereof, as feasible.
- B. DESIGN-BUILDER shall provide a monthly report to LAWA on their recycling and solid resources management, including quantitative data (by weight and/or volume) of the materials recycled, reused and/or disposed of for the project, with subtotals and grand totals provided for each material type (i.e. concrete, steel, etc.).

14. TRIBAL, ARCHAEOLOGICAL, AND PALEONTOLOGICAL RESOURCES

- A. Grading and excavation shall be subject to requirements of the LAX Master Plan Archaeological Treatment Plan (ATP), available at https://www.lawa.org/-/media/lawa-web/lawa-our-lax/studies-and-reports/mitigation-monitoring/archaeological_treatment_plan.ashx.
- B. Grading and excavation shall also be subject to the requirements of the LAX Master Plan

Paleontological Management Treatment Plan, available at: https://www.lawa.org/-/media/lawa-web/lawa-our-lax/studies-and-reports/mitigation-monitoring/archaeological_treatment_plan.ashx

- C. Personnel involved in grading and excavation shall be required to attend a briefing by the Project's Cultural Resource Monitor regarding the identification of cultural resources, including archaeological resources, paleontological resources, and historic resources, and the correct procedures for notifying the relevant individuals should such a discovery occur during Project excavation.
- D. Prior to grading/excavation, DESIGN-BUILDER will consult with LAWA regarding the potential need for monitoring during site excavation activities, based on specific design information and soils information, and the associated probability of encountering cultural, archaeological, or Tribal resources and identify the areas/construction elements that warrant such monitoring.
 - 1. As part of the above consultation process, LAWA will require that the DESIGN-BUILDER provide to LAWA, at least 90 days prior to grading/excavation, construction plans/specifications indicating whether and where grading/excavation will or may occur at depths greater than 5 feet beneath unpaved areas or 10 feet beneath paved areas.
 - 2. In the event that it is determined, through the above consultation process, that project grading/excavation activities will be monitored by a Tribal monitor, DESIGN-BUILDER shall allow the Tribal monitor to access project areas during such grading/excavation activities.
 - 3. The Tribal monitor will work independently from any other cultural resource monitor to monitor ground disturbing activities identified at project initiation to have the potential for encountering archaeological resources in undisturbed soils.

15. HAZARDOUS AND/OR REGULATED MATERIALS

- A. The DESIGN-BUILDER shall provide a Hazardous Materials Management Plan (HMMP) to describe their methods and procedures to safely detect, locate, identify, monitor, test, analyze, quantify, handle, treat, transport and dispose of hazardous and/or regulated materials within buildings, soils, and other areas on the project site in accordance with all federal, state and local rules and regulations. This includes, but is not limited to, asbestos, lead, mercury, polychlorinated biphenyls (PCBs), refrigerants, petroleum hydrocarbons, fuels, volatile organic compounds (VOCs), and other hazardous and/or regulated materials. DESIGN-BUILDER shall submit their HMMP to LAWA for review and approval prior to starting construction or excavation, and shall provide updates as needed throughout construction and closeout.
 - 1. The DESIGN-BUILDER shall identify their Hazardous Materials Manager in their HMMP; a person qualified to identify hazardous and/or regulated materials, initiate response and contingency plans, provide notifications to LAWA and the proper regulatory agencies in the event of encountering such materials, and training personnel onsite as needed.
 - 2. The DESIGN-BUILDER shall identify their subcontractors, test labs and disposal sites for Hazardous and/or regulated materials in their HMMP.
- B. The DESIGN-BUILDER shall immediately notify LAWA of any observances or occurrences of hazardous materials or other materials that pose a safety or regulatory risk.
- C. The DESIGN-BUILDER shall perform sampling and analysis of any suspect-material identified during the design and preconstruction stages of the project to mitigate risk during demolition and construction.

- D. Unless otherwise directed by LAWA, DESIGN-BUILDER shall safely remove from airport property all hazardous materials discovered on the Project Site in accordance with all federal, state and local rules and regulations.
- E. The DESIGN-BUILDER shall not introduce chemicals to any LAWA site without prior approval from LAWA. In case of such approval, DESIGN-BUILDER shall provide complete Material Safety Data Sheets (MSDS) or other data as requested by LAWA.
- F. Given the function and age of the existing facilities on the project-site, it is reasonable to suspect that some amount of hazardous materials and/or regulated substances will be encountered by the DESIGN-BUILDER during performance of the work. Therefore, it is imperative that the DESIGN-BUILDER prepares their HMMP during the early stages of site investigations, and begins implementation of their HMMP long before the GMP/CGMP is established.
- G. Some materials and items found in the buildings and site involved in the work are known to contain or may contain materials known to the State of California to be either hazardous, carcinogenic, or reproductive toxins. Such materials require special handling and disposition if encountered during demolition, remodeling, or other physical alteration, and include, but are not limited to, those with asbestos containing materials (ACM) or asbestos containing building materials (ACBM), lead-based paint (LBP), mercury primarily in lighting equipment, and polychlorinated biphenyls (PCBs).
- H. The DESIGN-BUILDER shall refer to PR-19 for additional requirements for Soils Impacted by Petroleum Hydrocarbons.

16. ENVIRONMENTAL MONITORING AND CONTROL

- A. The DESIGN-BUILDER shall demonstrate their compliance with all environmental requirements on the project by submitting a monthly environmental report throughout all stages of the project. The monthly report shall include narrative and/or bulleted updates, photos, lists, matrices, and other qualitative and quantitative data. LAWA will also randomly monitor DESIGN-BUILDER's compliance with environmental mitigation requirements throughout the term of the contract.
- B. Prior to initiation of construction activities, DESIGN-BUILDER shall designate an individual on the DESIGN-BUILDER's project team, along with an alternate as a backup for when the designated individual is not available, responsible for ensuring implementation of all construction-related environmental requirements set forth herein through direct inspections, record reviews, investigations of complaints, and other means to confirm implementation and compliance. DESIGN-BUILDER shall provide LAWA with the name and contact information, including cell phone number, of the designated individual and of the alternate. The designated individual and alternate shall be on-site full-time workers with the availability, and DESIGN-BUILDER management support, to conduct the necessary compliance activities, in addition to his/her other job responsibilities that would be secondary to compliance monitoring. If the designated individual or alternate changes, DESIGN-BUILDER shall provide the name and contact information of the replacement individual within 5 working days.
- C. In addition to any other penalty that may be imposed by other agencies, LAWA retains the authority to assess penalties for non-compliance. These penalties will be of one thousand dollars (\$1,000) per day and per occurrence for each non-compliance of the specified requirements herein as deemed by LAWA.
- D. In the event such non-compliance is not fully addressed and corrected to the satisfaction of LAWA within 24 hours from the time the non-compliance is first observed or noted by LAWA,

or a corrective action plan acceptable to LAWA is not provided within that 24-hour period, the penalties set forth above in Subsection 16.C shall be increased daily by 100 percent (i.e., \$1,000 on Day One, \$2,000 on Day Two, \$4,000 on Day Three, \$8,000 on Day Four, and so on) until the non-compliance is corrected to the satisfaction of LAWA or an acceptable corrective action plan is provided to LAWA.

- E. All of the DESIGN-BUILDER's records related to the implementation of these construction related measures are subject to a Third-Party Monitor review and LAWA audit at any time, and for the duration of the contract. These records shall be part of the DESIGN-BUILDER's record documents provided to LAWA.
- F. Unless otherwise provided, all requirements of this section shall be considered incidental to other items and no separate measurement or payment will be made.

END OF PR-18 ENVIRONMENTAL

PR-19 REMOVAL AND DISPOSAL OF CONTAMINATED MATERIALS

1. GENERAL

- A. Past and present operations at LAWA involve the use of various chemicals and hazardous materials, including, but not limited to, underground pipelines and fueling systems and aboveground fueling activities, aircraft and equipment maintenance, and the like. The confirmed or potential presence of underlying soils impacted by such chemicals and materials is known to occur at the airport, and there is the potential for encountering such impacted soils during excavation, grading, boring, or other earthwork activities.
- B. This section includes the identification, testing, screening, excavation, segregation, handling, stockpiling, transportation, characterization, and disposal of soil that is suspected or confirmed to be impacted by petroleum hydrocarbons (i.e., fuels), as may be encountered at the LAWA airports during site earthwork or any other construction activities. In the event soils or other materials are encountered and are known or suspected to be contaminated or hazardous for reasons other than being impacted by petroleum hydrocarbons (i.e., asbestos containing materials, solvents, chemically treated wood, etc.), a separate scope of work specific to the particular soils/materials encountered will be defined separately elsewhere in the contract documents.

2. REFERENCES

- A. California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA).
- B. SCAQMD, Rule 1166 - Volatile Organic Compound Emissions from Decontamination of Soil.

3. PROCEDURE FOR THE MANAGEMENT OF PETROLEUM HYDROCARBON IMPACTED SOIL ENCOUNTERED DURING CONSTRUCTION

- A. DESIGN-BUILDER shall provide a HMMP to describe their methods and procedures to safely detect, locate, identify, test, analyze, quantify, characterize, monitor, screen, excavate, handle, segregate, stockpile, treat, transport and dispose of soil that has been suspected or confirmed to be impacted by petroleum hydrocarbons (i.e. fuels). DESIGN-BUILDER shall submit their HMMP to LAWA for review and approval prior to starting construction or excavation, and shall provide updates as needed throughout construction and closeout.
- B. DESIGN-BUILDER shall comply with applicable federal, state, and local regulations in their management of impacted soils. This includes, but is not limited to, SCAQMD; California Environmental Protection Agency (EPA); Department of Toxic Substances Control (DTSC); RWQCB; DOT; and Los Angeles Fire Department (LAFD).
- C. When required by permit and regulation; excavation of soils impacted or potentially impacted by hydrocarbons shall be performed in accordance with requirements of SCAQMD Rule 1166, such as in the case when excavation or grading is undertaken in areas where the use, storage, or transfer (piping) of volatile organic compound (VOC) materials, including fuels, has occurred, where previous investigation has determined that VOCs are present, or where visual or olfactory observation of soils impacted or potentially impacted by hydrocarbons occurs during excavation or grading. DESIGN-BUILDER shall provide a site-specific plan and permit for the excavation, grading, handling, storage, treatment and/or disposal of soil

containing VOCs in accordance with the AQMD Rule 1166.

- D. DESIGN-BUILDER shall provide personnel qualified to identify potentially impacted soil and shall also have trained personnel present on site to initiate spill response and to contact the proper regulatory agencies in the event of encountering contaminated soils. The citation and qualifications of such personnel must be included in the DESIGN-BUILDER's site specific health and safety plan and HMMP.
- E. DESIGN-BUILDER shall immediately notify LAWA of any observances or occurrences of soil contamination. In the case of any fuel spill or discovery of uncontained free product (raw fuel in liquid state) within the excavation, especially when strong odors or fumes are detected from such material, DESIGN-BUILDER shall contact both LAWA and LAFD. For active fuel release, stopping the spill at the source shall be a priority.
- F. DESIGN-BUILDER shall not introduce chemicals to any LAWA airport site without prior approval from LAWA. In case of such approval, DESIGN-BUILDER shall provide complete MSDS or other data as requested by LAWA.
- G. DESIGN-BUILDER shall plan their activities so that parallel activities can continue in other areas of the project site while any contamination is investigated and/or remediated so that any impact to the overall project schedule is minimized.
- H. DESIGN-BUILDER shall quantify all potentially VOC contaminated soil and impacted soil by the cubic yard (CY) for sampling, analysis, documentation, excavation, stockpiling, re-use and removal from airport property, as identified in the contract documents, and per regulatory requirements.
- I. DESIGN-BUILDER shall include in the HMMP, and provide at the end of the project, a "Contaminated Soil and Hazardous Material Management Report" that details the characterization and disposition of all contaminated soil and hazardous material removed from the project site. This report shall include at minimum the following sections:
 - 1. Identification of DESIGN-BUILDERS, Subcontractors, qualified environmental consultants, test labs, disposal sites and associated contract responsibilities;
 - 2. Soil management approach;
 - 3. Soil sampling and analyses;
 - 4. Soil disposition for the several "phase" areas of earthwork;
 - 5. Confirmation sampling at the limits of excavation;
 - 6. Other data as required.

4. **PETROLEUM HYDROCARBON-IMPACTED SOIL TESTING**

- A. Oil company pipelines, above and below ground fuel tanks, and pipelines for the various fuel delivery systems are known to exist on the airport. DESIGN-BUILDER shall contract with an environmental consultant (i.e., a professional consultant/firm qualified and experienced in the assessment, management, and handling of non-designated/non-hazardous contaminated soils/materials as well as hazardous soils/materials) capable of soils testing to assess the nature and geographic extent of such soils occurring within the project area, and formulate a grading approach and schedule that will avoid unnecessary interruptions or delays due to special handling requirements of impacted soils. DESIGN-BUILDER's environmental consultant shall also be available to assess soils known or suspected to be impacted by

hydrocarbons or contaminants that are unexpectedly encountered during site grading and excavation.

- B. DESIGN-BUILDER's environmental consultant shall have experience in complying with all aspects of SCAQMD Rule 1166 including, but not limited to, the ability to expeditiously obtain approval from SCAQMD for a Rule 1166 Various Locations Mitigation Plan or Rule 1166 Site Specific Mitigation Plan. It is DESIGN-BUILDER's responsibility for complying with all requirements of SCAQMD Rule 1166 without interruption or delay in the project schedule.
- C. DESIGN-BUILDER shall exercise care in the event that soils known or suspected to be impacted by hydrocarbons or contaminants are encountered during excavation of soil in all areas of the project.
- D. Identification and Screening. The monitoring for, and identification and screening of, soils for the presence of VOC materials will be based on whether such materials are known or suspected to be present within the specific area of excavation/grading, or whether the area is subject to the requirements of SCAQMD Rule 1166 (i.e., when excavation or grading is undertaken in areas where the use, storage, or transfer (piping) of VOC materials, including fuels, has occurred), or where visual or olfactory observation of soils impacted or potentially impacted by petroleum hydrocarbons or other VOC materials occurs during excavation or grading.
- E. Petroleum hydrocarbon-impacted soils may be identified by characteristic odor (i.e., a moderate to strong hydrocarbon odor, or other strong or unusual odors) and/or dark gray to black or greenish staining of the soil. The measurement of VOC levels near excavated soils using a photoionization detector (PID), measured within three (3) inches of the excavated soils, within three (3) minutes after being excavated, can also determine the presence of impacted soils. If petroleum hydrocarbon-impacted soils are found or suspected to be present, the measured VOC levels provide the basis for screening and preliminary characterization of the excavated soils, as follows:
 - 1. PID Reading of > 50 parts per million (ppm): This excavated material is considered under SCAQMD Rule 1166 to be "Contaminated" and must be treated/disposed of within thirty (30) days of excavation. Contaminated soil is subject to special handling requirements set forth in the following Sections.
 - 2. PID Reading of between 1 ppm and 50 ppm: This excavated material is not VOC Contaminated (Non-Contaminated) pursuant to SCAQMD Rule 1166.
 - 3. PID Reading of less than 1 ppm (and no visual or olfactory sign of being hydrocarbon-impacted): This excavated material is considered to be neither contaminated nor impacted, and is not subject to any special requirements for handling, reuse, or disposal (i.e., Unrestricted).

5. HANDLING OF CONTAMINATED AND NON-CONTAMINATED/IMPACTED SOIL

The following table summarizes the special handling requirements associated with contaminated and non-contaminated/impacted soils.

Soil Category	PID Reading	Handling Requirements
Contaminated	>50 ppm	<ul style="list-style-type: none"> • Manage soil in accordance with the DESIGN-BUILDER's HMMP, SCAQMD Rule 1166 Mitigation Plan, and Project Storm Water Pollution Prevention Plan (SWPPP). • Spray with water or approved vapor suppressant prior to transport. • Segregate and transport to contaminated stockpile area designated by LAWA • Conduct characterization as related to soil disposition – see Section 7 below • Immediately transport to LAWA-approved treatment, storage, and disposal facility (TSDF) – see Section 7 below. • Contaminated soil must be removed from the Site within thirty (30) days of excavation.
Contaminated	>1,000 ppm	<ul style="list-style-type: none"> • Manage soil in accordance with DESIGN-BUILDER's HMMP, SCAQMD Rule 1166 Mitigation Plan, and SWPPP. • Immediately spray soil and work area with water or approved vapor suppressant. • Place soil in SCAQMD-approved containers with vapor-tight lids, OR • Load directly into trucks, spray with vapor suppressant, conduct characterization as related to soil disposition, and transport immediately off-site to approved TSDF - see requirements for disposition below. • Notify SCAQMD within one hour of detection. • Contaminated soil must be placed in AQMD approved sealed containers equipped with vapor tight lids and transported to a LAWA-approved disposal facility within 30 calendar days OR shall be directly loaded into trucks and handled per Rule 1166 requirements and transported immediately offsite to a LAWA-approved disposal facility.
Non-Contaminated Impacted	≥ 1 ppm - <50ppm	<ul style="list-style-type: none"> • Manage soil in accordance with requirements of SWPPP. • Segregate and transport to designated stockpile areas. • Demonstrate that soil is safe to be reused onsite, and/or coordinate with disposal facilities for characterization and disposal.

6. DISPOSITION OF CONTAMINATED SOIL

- A. DESIGN-BUILDER shall conform to all local, state, and federal laws and regulations regarding the removal, handling, and transport of contaminated materials. DESIGN-BUILDER shall provide LAWA documentary evidence (manifests, bill of ladings, weight tickets) of legal disposal of all unsuitable-for-reuse materials. All costs associated with contaminated soil testing, excavation, transportation, remediation/recycling, and disposal shall be included in the respective CGMP or GMP proposal.
- B. DESIGN-BUILDER shall propose a disposal/recycle method and facility/location for disposal of soils. Acceptance of the proposed disposal/recycle method and facility is subject to review and approval of LAWA.
- C. Soil Disposal and Reuse. Soil shall be disposed of, recycled, or reused in accordance with the DESIGN-BUILDER's HMMP, regulatory requirements and as directed by LAWA. Non-Contaminated and VOC contaminated soil will be sampled in accordance with the proposed TSDf or other intended recipient. For example, Soil Safe's Recycling Facility typical sampling requirements as of November 2013 are: "Unless otherwise noted, composite samples should be collected with the following frequency: 1 sample for 100 cubic yards (cy) or less; 3 samples for 500 cy; 5 samples for 1000 cy and 1 additional sample for each additional 500 cy greater than 1000 cy." Such sampling and soil characterization shall occur prior to transport for disposal, recycle or reuse. Disposal facilities, including recycling facilities, establish their own criteria for acceptance of these materials and typically provide them to the DESIGN-BUILDER on request. DESIGN-BUILDER is responsible to determine facility-specific acceptance criteria and the laboratory testing methods necessary to meet those criteria. Procedures include but are not limited to;
 1. sample and analyze samples at a qualified laboratory;
 2. prior to submitting results of analysis to the disposal/recycling facility; DESIGN-BUILDER shall request the permanent or temporary EPA ID number from LAWA for the specific project location;
 - a. LAWA can typically provide a temporary EPA ID number in one business day.
 - b. Temporary EPA ID numbers are valid for 90 days from date of issue to LAWA.
 3. submit analytical results to the disposal/recycle facility to obtain a draft waste profile;
 4. obtain required profiles (from the disposal facility);
 5. obtain manifests/bill of ladings (from the disposal facility);
 6. provide other documents required for transportation and disposal, recycle or reuse of soil for all VOC contaminated and non-contaminated soils.
- D. DESIGN-BUILDER shall submit waste profiles to LAWA for review and approval. Once approved by LAWA, the signed profiles will be provided to the DESIGN-BUILDER. LAWA's review and approval process typically takes seven (7) days, providing that the waste profile form is properly completed;
 1. submit the draft profile, including the complete analytical results, chain of custody documentation and quality control data, and a statement from a qualified individual that they have "reviewed the results and, based on that review, the draft profile is correct and complete";
 2. The LAWA Environmental Coordinator will review the draft profile and forward to the LAWA Generator Representative for generator review and approval; the approved signed

profile will be returned directly to the DESIGN-BUILDER.

3. The DESIGN-BUILDER will submit a request for inspection to LAWA Inspections if a generator signature is required for the shipping documents.
- E. VOC Contaminated Soil – Non-hazardous. VOC contaminated soil (as determined by SCAQMD Rule 1166 screening procedures) that has been characterized as non-hazardous waste (as determined by review of sample analysis for characterization for disposal) will be disposed of by recycling (i.e., thermal desorption) or as directed by LAWA. Such recycling facilities include, but not limited to:

Thermal Remediation Solutions, Waste Management
1211 W. Gladstone Street
Azusa, CA 91702
Soil Safe
12328 Hibiscus Road
Adelanto, CA 92301
- F. DESIGN-BUILDER shall obtain a certificate of recycle for all project soils treated at the facility and provide the certificate(s) to LAWA as a submittal. No payment for the work will occur until LAWA receives these certificates.
- G. VOC Contaminated Soil - Hazardous. VOC contaminated soil (as determined by SCAQMD Rule 1166 screening procedures) that has been characterized as hazardous - RCRA or Non-RCRA Waste (as determined by review of sample analysis for characterization for disposal) will be disposed of at a facility designated by LAWA. Disposal facilities for RCRA and non-RCRA waste include, but not limited to:

US Ecology
PO Box 578
Hwy 95, 12 Miles South of Beatty
Beatty, NV 89003
- H. Non-Contaminated Soil. Non-Contaminated impacted soil (i.e., soil with PID reading of between 1 and 50 ppm) will be sampled and analyzed by the DESIGN-BUILDER as directed by LAWA. Pending analytical results; non-contaminated impacted soil will be disposed of or reused as directed by LAWA.
- I. Transporting Soil. Soils will be transported in accordance with the approved DESIGN-BUILDER HMMP. VOC contaminated soil will be loaded and handled in accordance with AQMD Rule 1166 and other requirements for the transport of regulated waste.
- J. Non-Contaminated non-impacted soil that has been characterized based on sampling and review of analysis as unregulated waste and unrestricted soil may be transported as unregulated soil.

END OF PR-19 REMOVAL AND DISPOSAL OF CONTAMINATED MATERIALS

PR-20 SUSTAINABILITY REQUIREMENTS

1. GENERAL

Compliance with this Section does not exempt DESIGN-BUILDER or its subcontractors from compliance with the EIR/MMRP, other applicable permits, approvals, requirements, rules and regulations of other agencies with jurisdiction over the work of this contract.

2. SUSTAINABLE PROJECT MANAGEMENT

- A. Construction Scheduling and Sequencing. DESIGN-BUILDER will coordinate material deliveries with installation times employing where possible "just in time" deliveries and provide pre-construction plans and schedules that show material deliveries and installations.
- B. Paperless Submittals and Change Orders. To the greatest extent possible and with LAWA's approval, electronic submittals/correspondence, revisions and RFIs will be dealt with electronically via the Prolog Manager® Project Management Software.

3. SUSTAINABLE CONSTRUCTION ACTIVITIES

- A. Erosion and Sedimentation Control Measures. DESIGN-BUILDER shall prepare and implement an Erosion and Sedimentation Control in accordance with the Environmental Mitigation Requirements and Special Construction (PR 18).
- B. Dust Control. DESIGN-BUILDER is to comply with BMP shall be implemented in accordance with "Environmental" PR-18.
- C. SWPPP. DESIGN-BUILDER will develop and implement a SWPPP for the construction site activities in accordance with "Environmental" PR-18.
- D. Recycle and Reuse of Construction Materials. DESIGN-BUILDER is required to adhere to the requirements of Environmental Mitigation and Special Construction Requirements PR 18.
- E. Construction Vehicles. DESIGN-BUILDER shall meet requirements for prohibiting vehicle idling in accordance with the environmental requirements defined in "Environmental" PR-18.
- F. Low Emission Construction Vehicle. DESIGN-BUILDER shall meet the emission requirements for construction vehicles in accordance with "Environmental" PR-18.
- G. Construction Noise Levels. DESIGN-BUILDER shall meet the requirements of "Environmental" PR-18.
- H. Construction Roadways: Prevent and repair roadway damage during construction. DESIGN-BUILDER will ensure that construction related vehicles operated on public roadways will not exceed maximum design load of any road that they will use. DESIGN-BUILDER is also responsible for ensuring that construction vehicles with the tractor treads are not driven on roadways. Should any accidents involving construction vehicles occur, DESIGN-BUILDER must report them immediately to the Police and LAWA. Any incident reports must be submitted to the appropriate law enforcement agency and LAWA.

4. CLEANING IN GENERAL

- A. DESIGN-BUILDER shall at all times keep premises free from accumulations of waste material

or rubbish caused by DESIGN-BUILDER 's employees or work, or employees or work of subcontractors, and shall remove rubbish from and about areas of work and DESIGN-BUILDER 's and subcontractors' tools, scaffolding and surplus materials and shall leave the work "broom clean", or its equivalent, except as hereinafter specified. In case of dispute between DESIGN-BUILDER and other contractors employed on or about the work areas, as to responsibility for removal of rubbish, etc., or in case debris is not promptly removed as herein required, the State may remove rubbish, etc., and back charge the DESIGN-BUILDER.

- B. At all times, project working area and site shall be kept clean and orderly. Dirt, debris, waste, rubbish and disused implements and equipment shall be removed frequently and not allowed to accumulate more than 24 hours. Flammable and toxic materials shall not be stored in structures.

C. PROGRESS CLEANING

1. General:

- a. Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
- b. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
- c. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F.
- d. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- e. Maintain project site free of waste materials and debris

2. Work Areas:

- a. Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the work.
- b. Remove liquid spills promptly.
- c. Where dust would impair proper execution of the work, broom-clean or vacuum the entire work area, as appropriate.

3. Installed Work:

- a. Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

4. Concealed Spaces:

- a. Remove debris from concealed spaces before enclosing the space

5. Exposed Surfaces in Finished Areas:

- a. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of completion.

6. Waste Disposal:

- a. Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
7. Progress Cleaning:
 - a. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at completion.
 - b. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
8. Limiting Exposures:
 - a. Supervise construction operations to assure that no part of the construction completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

D. FINAL CLEANING

1. Within contract limits, clean interior and exterior surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces vacuum carpeted and soft surfaces.
 - a. Clean equipment and fixtures to sanitary condition, clean or replace filters of mechanical equipment.
 - b. Clean roofs, gutters, downspouts and drainage systems.
 - c. Glass: Clean all glass, interior and exterior, affected by work of this project; including removal of foreign material from glass.
2. Clean site: Sweep paved areas, rake clean other surfaces.
3. Remove waste and surplus materials, rubbish and construction facilities from project and from site.
4. Dust, dirt, stains, hand marks, paint spots, and like defects shall be completely removed from surfaces. Metal surfaces shall be cleaned, using only non-corrosive and non-abrasive materials.
5. Final Inspection: Deficient cleaning operations, as determined by the State, shall be immediately corrected as directed.

E. DISPOSAL

1. Under no circumstances shall rubbish or waste material be disposed of in site fills or backfills. Debris, rubbish, and waste or surplus material shall be removed from the State property daily and legally disposed of.

END OF PR-20 SUSTAINABILITY REQUIREMENTS

PR-21 BUILDING INFORMATION MODEL (BIM) AND VDC COORDINATION**1. GENERAL**

- A. Design-Builder shall employ BIM and VDC tools to facilitate the design, construction, coordination, scheduling, estimating, phasing, and close out of the Work. The BIM and VDC will be developed and refined based on LAWA's BIM Execution Plan (BXP) template in a coordinated effort between LAWA and the Design-Builder. The final BXP shall be formally submitted to LAWA for review and approval. The BIM Process shall be an integral part of project delivery and shall be used for:
1. Enabling all stakeholders to view and track the project throughout design, construction and closeout.
 2. Enabling a coordinated Design-Build delivery of construction documents and fabrication/shop drawings. The Design-Builder, its Design Professionals and Consultants, its Subcontractors and their Subcontractors shall assist, integrate and use the BIM model for the creation of construction documents and shop drawings as described in VOL 2- LAWA BIM Requirements, located in LAWA's Design and Construction Handbook. (<https://www.lawa.org/en/lawa-businesses/lawa-documents-and-guidelines/lawa-design-and-construction-handbook>)
- B. BIM Manager: DESIGN-BUILDER shall appoint a BIM manager to develop and oversee the BIM Execution Plan (BXP) as defined in the LAWA BIM Standards and Requirements (see hyperlink above). Additional qualified staff and support shall be made available to ensure adequate progress in the implementation and integration of the LAWA BIM Standard throughout the Design-Build team. Refer to the LAWA BIM Standards and Requirements in the DCH for a complete description of the BIM Manager's roles and responsibilities.

2. BUILDING INFORMATION MODEL (BIM) REQUIREMENTS

- A. The DESIGN- BUILDER's BIM Model shall be developed, maintained and delivered according to the LAWA BIM Standards and Requirements (See the hyperlink above for the complete LAWA BIM Standards and Requirements). The following is a partial list of topics covered:
1. General Requirements
 2. BIM Uses
 3. BIM Execution Plan (BXP)
 4. Procedures and Methods
 5. Coordinate System/Shared Coordinates
 6. Model File Naming
 7. Level of Detail
 8. Level of Development
 9. Design Review
 10. Interim Model Reviews
 11. QC/QA Requirements.
 12. Commissioning Requirements
 13. Spatial Coordination and Clash Detection

14. 4D/5D Model Simulation. However, 4D or 5D model updates are not required during the construction phase
15. Construction Simulation
16. Reconciled Record Model Requirements. Facility Management
17. GIS Integration

Modify the BXP to eliminate As-Built Model and Reconciled Record Model (RRM) deliverables. No 4D or 5D model updates during the construction phase

3. RELATED PROJECT REQUIREMENTS

A. Refer to the following Project Requirements for additional BIM related requirements:

1. PR-7 Utilities
2. PR-9 Submittal Procedures
3. PR-16 Surveying
4. PR-25 Project Record Documents

END OF PR-21 BUILDING INFORMATION MODEL (BIM) AND VDC COORDINATION

PR-22 GUARANTEED MAXIMUM PRICE (GMP) PROPOSALS

1. GENERAL

LAWA envisions this project will involve multiple Component Guaranteed Maximum Price (CGMP) Proposals for select project components, prior to establishing an overall Guaranteed Maximum Price (GMP) for the entire Project.

Each CGMP and/or GMP (collectively (C)GMP) Proposal shall clearly and conspicuously identify any proposed deviation from the Contract, in writing, and any such deviation must be specifically accepted by LAW A, in writing. In the event of a conflict between any term of the (C)GMP Proposal that was not clearly and conspicuously identified and approved by LAW A, the terms of the Contract and its attachments shall control.

2. (C)GMP DEVELOPMENT

- A. Building upon the deliverables described in PR-01, DESIGN-BUILDER shall provide a complete Proposal Binder for each CGMP and GMP work package.
- B. LAW A and DESIGN-BUILDER may choose to negotiate CGMP work packages for each Project Component (or some combination thereof) at a minimum 60% Design Package, unless otherwise directed by LAW A.
- C. DESIGN-BUILDER shall not withdraw any (C)GMP Proposal for ninety (90) days following submission to LAW A.
- D. DESIGN-BUILDER shall develop (C)GMP Proposals throughout Phase 1 of the Contract in accordance with PR-01, and shall review progress with LAW A on an ongoing basis.
- E. No billable work on any (C)GMP work package is authorized until and unless LAW A issues a Notice to Proceed (NTP) for the (C)GMP work package, specifically authorizing the billable work to proceed.

3. SUBMITTAL REQUIREMENTS

- A. The (C)GMP Proposal shall include a **Cover Letter (Tab 1)**.
- B. The (C)GMP Proposal shall include a **Table of Contents (Tab 2)**.
- C. The (C)GMP Proposal shall include a detailed written **Scope of Work (Tab 3)**. This shall include a clear & detailed narrative, and a corresponding list of scope components. This shall also clearly identify and include the associated drawings, specifications, calculations & reports, etc. that formed the basis for the scope of work.
- D. The (C)GMP Proposal shall include a clear & detailed breakdown of the **Guaranteed Maximum Price (Tab 4)**. This includes, but is not limited to;
 - Detailed Cost-Breakdowns by Project Component (WBS #, etc.)
 - Detailed Cost-Breakdowns by Scope Component (Unit Prices, Quantities, etc.)
 - Detailed Cost-Breakdowns by Trade / Subcontractor
 - Detailed Breakdowns of Proposed Prime Costs (Staffing, General Conditions, Self-Performed Work, etc.)

- Detailed Breakdowns of Proposed Allowances & Contingencies
 - Detailed Breakdowns of Proposed Soft Costs (Design, Permitting, etc.)
 - Detailed Breakdowns of Proposed Markups & Fees (Profit, Bonds, Taxes, Insurance, etc.)
 - Proposed Schedule of Values (SOV) for the basis of (C)GMP Progress Payments
- E. The (C)GMP Proposal shall include a clear & detailed **Work Plan & Schedule (Tab 5)**. This includes, but is not limited to;
- Detailed Critical Path Schedule and Construction Phasing Plans (See PR-04)
 - Summary Schedule of Key Activities & Milestones (i.e. Design, Permitting, Mobilization, Construction, Commissioning & Activation, Substantial Completion, Closeout, etc.)
 - Identification of any Proposed Liquidated Damages (LD) terms
- F. The (C)GMP Proposal shall include a clear & detailed explanation of **Clarifications and Assumptions (Tab 6)**. This includes, but is not limited to;
- Detailed Narrative of any Proposed Deviations from the Contract
 - Detailed Narrative of any Proposed Deviations from the Design & Construction Handbook (DCH)
 - Detailed Proposals for Additive & Deductive Alternates (where applicable)
 - Detailed List of Specific Exclusions (where applicable)
 - Other Clarifications & Assumptions (where applicable)
- G. The (C)GMP Proposal shall include a **Procurement & Packaging Plan (Tab 7)**. This includes, but is not limited to;
- List and description of bid packages
 - Bidding and award schedule.
 - List of pre-qualified bidders organized by package
 - Draft bid tabulation summary
 - Proposed portions of work to be self-performed
- H. The (C)GMP Proposal shall include a **Inclusivity Plan (Tab 8)**, that clearly demonstrates how the DESIGN-BUILDER will fulfill the Inclusivity Requirements of the Contract (ITP-1.3, ITP-11.3, Exhibit B, GC-9, Exhibit F, etc.)
- I. The (C)GMP Proposal shall include a **Permitting Plan (Tab 9)**, that clearly demonstrates how the DESIGN-BUILDER will obtain approvals & permits from all Authorities Having Jurisdiction (CALTRANS, DHS, FAA, LABOE, LADBS, LADOT, LADPW, etc.)
- J. The (C)GMP Proposal shall include a **CGMP Management Plan (Tab 10)**, that clearly demonstrates how the DESIGN-BUILDER will manage all aspects of the work package (design, permitting, mobilization, construction, risks, phasing & logistics, AOR & Commissioning, etc.)

- K. Revised (C)GMP Proposals shall include a **Comment Log (Tab 11)**, including a written response to each LAWA review comment on the previous CGMP Proposal submittal, clearly identifying where & how each comment was addressed in the revised Proposal.
- L. The (C)GMP Proposal and all supporting documents shall identify and describe all items, assumptions, costs, contingencies, schedules and other matters necessary and relevant for proper execution and completion of the Work and for establishment of the (C)GMP. The (C)GMP Proposal and the supporting documents are complementary and, in the event of an irreconcilable conflict between or among them, the interpretation that provides for the higher quality of material and workmanship shall prevail over all other interpretations.

4. REPRESENTATIONS

- A. In submitting the (C)GMP Proposal, DESIGN-BUILDER represents that it will provide every item, system or element of Work that is identified, shown or specified in the (C)GMP Proposal or the supporting documents, along with all necessary or ancillary materials and equipment for their complete operating installation, unless specifically excepted by LAWA. Upon LAWA's acceptance of the (C)GMP Proposal, DESIGN-BUILDER shall not be entitled to any increase in the (C)GMP due to the continued refinement of the Design Documents or Construction Documents, nor the absence or addition of any detail or specification that may be required in order to complete the Project as described in and reasonably inferable from the (C)GMP Proposal or the supporting documents used to establish the (C)GMP.
- B. LAWA may accept or reject the (C)GMP Proposal, or attempt to negotiate its terms with DESIGN-BUILDER. Upon acceptance by LAWA of the (C)GMP Proposal in writing, both parties shall execute the (C)GMP Proposal. The terms of the (C)GMP Proposal, including the (C)GMP and the supporting documents, will therefore become part of the Contract between the LAWA and DESIGN-BUILDER. If LAWA rejects the (C)GMP Proposal or the parties are unable or unwilling to agree on a (C)GMP, LAWA may stop some or all of the associated work, and/or terminate the Contract entirely, in accordance with the General Conditions.
- C. Following LAWA's acceptance of the (C)GMP Proposal, DESIGN-BUILDER shall continue to monitor the development of the Design Documents and Construction Documents so that, when complete, the Construction Documents adequately incorporate and resolve all qualifications, assumptions, clarifications, and other issues identified in the (C)GMP Proposal.
- D. The Parties may agree to convert budgets within the (C)GMP to lump sum amounts at any time after DESIGN-BUILDER has received bids or proposals from trade contractors or subcontractors for the performance of elements of the Work. In proposing lump sum amounts, DESIGN-BUILDER shall identify buyout savings, unused allowance and/or contingency amounts, and other trade package contracts that have not been finalized. In preparing a lump sum conversion proposal, the DESIGN-BUILDER shall provide the following information:
 - 1. The stage of completion of the Project;
 - 2. The trade packages that have been completely bought out;
 - 3. The trade packages remaining that have not been bought out;
 - 4. A complete line item breakdown of the calculations used to establish a lump sum amount based on the (C)GMP Schedule of Values;
 - 5. An accounting of all savings amounts that are to be returned to LAWA as part of the lump sum calculation; and
 - 6. Any other Project information requested by LAWA.

- E. DESIGN-BUILDER shall document the actual Cost of the Work at buyout as compared to the (C)GMP Proposal and shall report this information to LAWA with DESIGN-BUILDER's recommendation for selection of a bid or proposal for each subcontracting package.

5. (C)GMP PREPARATION GUIDELINES

A. Pre-Submittal Requirements:

1. Scope Definition: Prior to (C)GMP submittal, DESIGN-BUILDER shall thoroughly review the (C)GMP package with LAWA and determine if the scope is sufficiently defined, and identify those areas requiring additional scope definition.
2. Schedule: Prior to (C)GMP submittal, DESIGN-BUILDER shall review with LAWA their proposed dates for the Notice To Proceed (NTP), Substantial Completion, and key phasing & operational milestones (i.e. roadway closures, etc.).
3. Budget: Prior to (C)GMP submittal, DESIGN-BUILDER shall review with LAWA their proposed cost-breakdowns, additive & deductive alternates, and cost-saving opportunities to be included in the (C)GMP Proposal.
4. Pre-submittal Conference: DESIGN-BUILDER shall host a meeting with LAWA prior to submitting the (C)GMP to LAWA to review the format, content, and other relevant issues.

END OF PR-22 GUARANTEED MAXIMUM PRICE (GMP) PROPOSAL

PR-23 NOT USED

END OF PR-23 NOT USED

PR-24 PHOTOGRAPHS AND VIDEO DOCUMENTATION**1 GENERAL****A. Summary**

1. This section includes administrative and procedural requirements for the following:
 - a. Preconstruction photographs.
 - b. Periodic construction photographs.
 - c. Final completion construction photographs.
 - d. Preconstruction video recordings.
 - e. Periodic construction video recordings.
 - f. Construction Site Webcams

B. Submittals

1. Qualification Data: Submit qualifications for professional photographer, citing experience with construction photography.
2. Photographer Qualifications: An individual who has been regularly engaged as a professional photographer of construction projects for not less than three years.
3. Submit Photographs and Video as defined in this PR. DESIGN-BUILDER shall submit two (2) DVD's containing the photographs. DVD shall be clearly labeled as to date of photographs, locations and project.

C. Coordination

1. Auxiliary Services: Coordinate with photographer and provide auxiliary services requested, including access to project site and use of temporary facilities, including temporary lighting required to produce clear well-lit photographs.

D. Usage Rights

1. Obtain and transfer copyright usage rights from photographer to LAWA for unlimited reproduction of photographic documentation.

2 PRODUCTS**A. Photographic Media**

1. Digital Images: Provide images in JPG format, produced by a digital camera with minimum sensor size of eight (8) mega pixels, and at an image resolution of not less than 1600 by 1200 pixels and 400 dpi.
 - a. Digital Camera: Minimum sensor resolution of eight (8) mega pixels.
 - b. Format: Minimum 1600 by 1200 pixels, 400 dpi minimum, in unaltered original files, with same aspect ratio as the sensor, un-cropped, date- and time- stamped, in folder named by date of photograph, accompanied by key plan file.
2. Photographic Documentation
 - a. Format: Electronic files of photographs provided on a clearly labeled CD. CD's sequentially numbered and dated upon the label.

- b. Identification: Provide an applied label with the following information:
 - 1) Name of Project.
 - 2) Name and contact information for photographer.
 - 3) Name of DESIGN-BUILDER.
- c. On the electronic file, provide the following information within the filename:
 - 1) Date photograph was taken.
 - 2) Description of photograph or area of photograph, defined to the extent it is clearly understandable.
 - 3) Unique sequential identifier keyed to accompanying key plan.
- 3. Video: High resolution video camera compatible for multiple formats, including PC based software

3 EXECUTION

- A. On each image (video, photograph), provide an applied label with the following information:
 - 1. Name of project.
 - 2. Name of DESIGN-BUILDER
 - 3. Date image was made.
 - 4. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - 5. Weather conditions at time of recording.
 - 6. Transcript: Prepared on 8-1/2-by-11-inch paper, punched and bound in heavy-duty, 3-ring, vinyl-covered binders. Mark appropriate identification on front and spine of each binder. Include a cover sheet with same label information as corresponding video Include name of project and date of video on each page.
 - 7. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - 8. Unique sequential identifier keyed to accompanying key plan.
- B. Construction Photographs
 - 1. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the work. Photographs with blurry or out-of focus areas will not be accepted.
 - 2. Maintain key plan with each set of construction photographs that identifies each photographic location.
 - 3. Key Plan: Submit key plan of project site and buildings with notation of vantage points marked for use in defining location and direction of each photograph. Indicate elevation or story of construction.
 - 4. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
 - 5. Photographic Prints: Submit up to two hundred (200) eight inch by ten inch (8" x 10") prints

of the project, developed on a digital copy machine in color, for use in displaying within LAWA's office, at the discretion of LAWA.

6. **Preconstruction Photographs:** Before starting construction, take photographs of project site and surrounding properties, including existing items to remain, items to be salvaged, and items to be demolished. The entire site should be documented, including adjacent areas to the construction. Include haul routes, laydown areas, and other areas that could be affected by the work.
 - a. Flag construction limits before taking construction photographs.
 - b. Take photographs to show existing conditions adjacent to property before starting the work.
 - c. Take photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction. Specific attention should be directed, but not limited to, the exterior of the FAA ATCT, their perimeter fencing and access gates, parking spaces and existing landscape improvements.
 - d. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
 - e. Assume that, at a minimum, three hundred (300) preconstruction photographs are to be taken. The actual number shall be that which defines all work from at least two (2) different directions, as necessary to have a photographic log that can be referenced.
 - f. Categorize photographs by area for ease of reference. Use terminology such as "CUP area, World Way North, Center Way South", etc. to define the location. Prepare a table of contents that defines photographs by areas taken.
7. **Periodic Construction Photographs:** Provide twenty (20) to forty (40) photographs monthly, coinciding with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken. Photographs should only document areas that have been subject to construction change since the last application for payment.
8. **LAWA Directed Construction Photographs:** From time to time, LAWA or their designee will instruct photographer regarding general directions of vantage points. Select actual vantage points and take photographs to show the status of construction and progress since last photographs were taken. Notify LAWA on site personnel of availability of photographer such that comment can be provided.
9. **Emergency Situation/Accident Photographs:** Accidents and/or emergency situations shall be documented and shared with the State and investigative agencies.
10. **Final Completion Construction Photographs:** Take suitable number of color photographs after date of Substantial Completion for submission as project record documents. LAWA or their designee will provide input to photographer of any desired vantage points. Assume one hundred fifty (150) final photographs will be required.
 - a. Do not include date stamp on the face of the photograph.
 - b. Where construction is completed by area, take photographs of completed area and submit at time of substantial completion.
11. **Additional Photographs:** Circumstances that could require additional photographs include, but are not limited to, the following:
 - a. Special events planned at project site.

- b. Immediate follow-up when on-site events result in construction damage or losses.
- c. Photographs to be taken at fabrication locations away from project site.
- d. Substantial Completion of a major phase or component of the work.
- e. Extra record photographs at time of final acceptance.
- f. LAWA's request for special publicity photographs.

4 PRECONSTRUCTION VIDEO

- A. Preconstruction Video: Before starting construction, record video of project site and surrounding properties from different vantage points, as directed by LAWA's representative.
 - 1. Flag construction limits before recording construction video.
 - 2. Show existing conditions within 100 feet of project site before starting the work.
 - 3. Show existing buildings either on or adjoining project site to accurately record physical conditions at the start of construction.
 - 4. Show protection efforts by DESIGN-BUILDER.
- B. Narration: Describe scenes on video by audio narration by microphone while video is recorded. Include description of items being viewed, recent events, and planned activities. At each change in location, describe vantage point, location, direction (by compass point), and elevation or story of construction.
 - 1. Confirm date and time at beginning and end of recording.
 - 2. Begin video with name of project, DESIGN-BUILDER's name, videographer's name, and project location.

5 CONSTRUCTION VIDEO

- A. Photographer: Engage a qualified photographer with construction project experience to record construction video in a digital format.
- B. Recording: During key on-site activities, take video of areas of site under construction that documents the interrelationships between the site and adjacent facilities. Video must cover areas affected by construction. Mount camera on tripod before starting recording, unless otherwise necessary to show area of construction. Display continuous running time and date. At start of each videotape, record weather conditions from local newspaper or television and the actual temperature reading at Project site. Assume that certain video will be required as part of monthly photo documentation, limited to areas of activity at that time.
- C. Narration: Describe scenes on videotape by audio narration by microphone while videotape is recorded. Include description of items being viewed, recent events, and planned activities. At each change in location, describe vantage point, location, direction (by compass point), and elevation or story of construction.
 - 1. Confirm date and time at beginning and end of recording.
 - 2. Begin each videotape with name of project, DESIGN-BUILDER's name, videographer's name, and Project location.
- D. Transcript: Provide a typed transcript of the narration to allow viewers to locate specific segments of the video. Indicate running time captured from video with the corresponding

narration segment.

- E. Preconstruction Video: Before starting construction, record digital video of project site and surrounding properties from different vantage points, as directed by LAWA's Representative.
 - 1. Flag construction limits before recording construction videotapes.
 - 2. Show existing conditions within one hundred (100) feet of the project site before starting the work.
 - 3. Show existing buildings either on or adjoining project site to accurately record physical conditions at the start of construction.
 - 4. Show protection efforts by DESIGN-BUILDER.

6 CONSTRUCTION SITE WEBCAMS AND TIME-LAPSE PHOTOS

- A. Install and connect minimum six (6) digital video cameras at specific locations and vantage points designated by LAWA. Webcam hardware and software shall incorporate the following features:
 - 1. Cameras shall be fully controllable with preset positions and pan, tilt, and zoom (PTZ) capability.
 - 2. System shall be capable of automatic time and date stamping and archive storage.
 - 3. Equipment shall be durable, from reputable manufacturers, and suitable for onsite use.
- B. Webcams shall be operational prior to mobilization and shall operate continuously through project completion. Use webcam images to produce a time-lapse video of the entire construction project taken from a constant vantage point.
- C. The DESIGN-BUILDER shall be responsible for monitoring and maintenance of webcam equipment and system to assure:
 - 1. Continuous transmission and capture of digital images.
 - 2. Images are suitable for public viewing of the construction site as well as for photographic documentation of the work.
- D. Time-Lapse Construction Photographs: Take color digital photographs at predetermined vantage points and frequencies, and in sufficient quantities, to show the status and progress of construction from the beginning of construction activities through project completion. Closely coordinate the planning and execution of time-lapse photography with LAWA. No later than two (2) weeks after the beginning of construction activities, submit sample time-lapse photographs to the LAWA for review and approval.

END OF PR-24 PHOTOGRAPHS AND VIDEO DOCUMENTATION

PR-25 PROJECT RECORD DOCUMENTS**1. GENERAL**

This project requirement provides clear direction and detailed procedural steps to ensure proper coordination, organization and transfer of all project record documents. Procedural requirements provided herein are intended to supplement and apply in conjunction with PR-27 Project Closeout.

2. REQUIREMENTS**A. Visual Standard**

1. The DESIGN-BUILDER shall present all printed documents as clear, legible, printed black on white paper with a minimum font and letter size of Arial 11.
2. Paper size is letter (8 ½ x 11") and tabloid (11" x 17").
3. The use of highlighted background is discouraged.

B. Record Drawings and BIM Model

1. LAWA will review the BIM Model throughout the design and construction phases of the project. LAWA will also review reconciled design models and specifications for completeness and correctness and return comments to the DESIGN-BUILDER for required corrections. Refer to the PR-21 Building Information Model (BIM) and VDC Coordination.
2. As-Built or Red Line Drawings: "As-built" information and survey-data (PR-16) shall be incorporated into the reconciled design models and approved plans; changes in the field shall be marked on the red line drawings in accordance with the LAWA approved BIM Execution Plan.

C. Initial Submittal: At least thirty (30) days prior to submitting a request for substantial completion of a project component or the entire project, DESIGN-BUILDER shall submit two (2) paper copies of the As-Built or red line drawings and one (1) PDF electronic files of marked-up plans (in contrasting color) from the As-built construction model and shop drawings files. DESIGN-BUILDER shall prepare the Reconciled Design Model and drawings as prescribed in PR-21.**D. Record Digital Data Files:** Prior to submitting a request for Substantial Completion of a project component or the entire project, DESIGN-BUILDER shall review the "As-Built" drawings and BIM Model with LAWA. When authorized, DESIGN-BUILDER shall prepare a full set of corrected digital data files of the construction drawings as follows:

1. Format to be same digital data software program, version, and operating system as the in accordance with PR-21.
2. Annotated, indexed PDF electronic files with comment function enabled.
3. Record drawings shall include plans, sections and elevations and shall include plans, profiles and sections of all utilities, regardless of whether this data was included in the original construction documents.
4. Record drawings shall reflect the field-verified survey data of all construction and installations.

E. Final Submittal: Upon approval of the initial submittal, but not less than fifteen days after substantial completion of a project component or the entire project, DESIGN-BUILDER shall

submit one (1) redline original paper copy set, two (2) clean/revised updated copies and two (1) electronic PDF (marked-up in contrasting color) revised/final copy of each As-Built submittal. Drawings shall be full sized. DESIGN-BUILDER shall also submit one set of record digital data files and BIM model (PR-21).

1. Identify and date each record drawing, including the designation "PROJECT RECORD DRAWING" in a prominent location.
 2. Organize record prints and newly prepared record drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on the covers.
 3. Provide PDF copies of all record drawings, specifications, and supporting documentation required to make a complete technical record of the project. Include design calculations, worksheets, schedules and other documentation used in the project design.
- F. All electronic files shall include metadata describing the content in a format compatible with LAWA's document management system. For metadata requirements for record drawings refer to PR-21.

Record Data for Specifications, Documents, Manuals and Warranties

Field Name	Field Name Description / Use
Folder Name	Name of the folder where the document resides; used for importing into DMS
Name	User name for the document
Document File Name*	File name for the document
Discipline	Primary discipline for the document (i.e. civil, structure, geotechnical, mechanical, electrical, plumbing, etc.)
Project Title*	Name of the project that created the document
Location*	Location of the project (facility name)
Address / Coordinates	Facility address and/or GPS coordinates
Document Type*	Type of document (i.e. drawing, specification, manual, etc.)
Organization	The division / department / customer that the SYSTEM, SUBSYSTEM, AND EQUIPMENT is installed for
Designed By	Company that designed the SYSTEM, SUBSYSTEM, AND EQUIPMENT that the document is for
Completion Date	Date that the project was completed or operational date of SYSTEM, SUBSYSTEM, AND EQUIPMENT
Issue Number	Revision / issue number of the document
Document Source	Source / publisher of the document (i.e. vendor, consultant, etc.)

Field Name	Field Name Description / Use
Subject	Reference project and specific purpose of document
Status	Status of the document (draft, final, etc.)
Designer	Name of the designer for the SYSTEM, SUBSYSTEM, AND EQUIPMENT that the document relates to
Keyword Search	Searchable field of words that can be used to search for the document
Comments	Free form field to add any comments about the document
Barcode	For use with a referenced database or for document management
Project File	Project file name from approved file management system
Checked By	Name of person that checked the validity of the document
Record Archive	Is this document archived? (yes / no)

G. Formatting standards may be obtained from LAWA.

1. Record Specifications

- a. Mark specifications in contrasting color to indicate the actual product installation, where installation varies from that indicated in specifications.
- b. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
- c. Mark copy with the proprietary name and model number of products, materials and systems and equipment furnishes, including substitutions and product options selected.
- d. Record the name of manufacturer, supplier, installer and other information necessary to provide a record of selections made.
- e. Submit one (1) paper copy and a set of annotated, indexed PDF electronic files of project specifications, including addenda and contract modifications.
- f. All electronic files shall include metadata describing the content in a format compatible with LAWA's documents management system. Record specifications shall include the metadata information required by LAWA.

2. Recording and Maintenance

- a. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and modifications to project record documents as they occur. LAWA shall review documents in concert with the monthly application for payment.
- b. Maintenance of Record Documents and Samples: Store record documents and samples in the field office apart from the contract documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from

deterioration and loss. Provide access to project record documents for LAWA's reference during normal working hours.

H. Record Product Data according to the Project Requirements – Building Information Operations and Maintenance Manual Information

1. Technical Manuals

a. This section includes administrative and procedural requirements for preparing technical manuals, including the following:

- 1) Documentation directory;
- 2) Emergency manuals;
- 3) Operation manuals for systems and equipment;
- 4) Product maintenance manuals; and
- 5) Maintenance manuals for systems and equipment.

b. Submit technical manuals as required in individual technical specification sections and in the following format:

- 1) PDF electronic file. Assemble each manual into a composite electronically-indexed file. Submit on digital media acceptable to LAWA.
- 2) Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically-linked directory.
- 3) Enable inserted reviewer comments on draft submittals.
- 4) Where scanning of paper documents is required, configure scanned file for minimum readable file size.
- 5) Four (4) paper copies. Include a complete directory. Enclose title pages and directories in clear plastic sleeves. Bind in heavy-duty, commercial-quality, durable three ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8½ by 11 inch paper with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversized sheets.
- 6) If two (2) or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary.
- 7) Identify each binder on front and spine with title, project title, subject matter of contents, and indicate specification section number on bottom of spine. Indicate volume number for multiple volume sets.
- 8) Dividers are to be heavy paper with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components included in the section on each divider, cross-referenced to specification section number and title of project manual.
- 9) Provide protective sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
- 10) If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents

and drawing locations.

- c. Timeliness of draft technical manual submittals is detailed in the other subsections. Before final payment, the DESIGN-BUILDER shall prepare and deliver to LAWA, four (4) each printed and two (2) each electronic copies on compact discs (CDs) or DVDs or other digital formats agreed to by LAWA of the final technical manuals. The content of the manuals is detailed in the subsections below.
 - d. The manuals shall be approved and stamped by the respective subcontractors.
 - e. Submit draft copy of each manual at least thirty (30) days before commencing demonstration and training. LAWA will comment on whether general scope and content of manual are acceptable. Correct or modify each manual to comply with LAWA comments.
 - f. Include a section in the directory for each of the following:
 - 1) List of documents,
 - 2) Alphabetical lists of systems and equipment, and
 - 3) Table of Contents – include for emergency, operation, and maintenance manuals.
 - g. Where manuals contain manufacturer's standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the work. If data includes more than one item in tabular format, identify each item using appropriate references from the contract documents.
 - h. Prepare a separate manual that provides an organized reference to all technical manuals. This is called the documentation directory.
 - i. In the documentation directory and in each technical manual, identify each system, subsystem, and equipment with the same designation used in the contract documents.
 - j. Enable bookmarking of individual documents based upon file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system, subsystem, and equipment into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel upon opening file.
2. Spare Parts and Tools Lists
- a. Submit a recommended spare parts list to LAWA in accordance with the DESIGN-BUILDER's commissioning plan and closeout plan and schedule as approved by LAWA and at least sixty (60) days prior to the request for substantial completion of a project component or the entire project. This is to be a list from the manufacturer of the recommended spare parts adequate to ensure two continuous years of normal operation after expiration of the system, subsystem, and equipment warranty.
 - b. The recommended spare parts list shall include, but not be limited to, items requiring replacement under the following conditions:
 - 1) Wear, corrosion, or erosion during normal operation;
 - 2) Failure which causes a shutdown of systems, subsystems, and equipment;
 - 3) Damage or breakage during routine maintenance or inspections of systems,

- subsystems, and equipment;
- 4) Custom or specially fabricated parts; and
- 5) Long lead items.
- c. Approval of the individual system, subsystem, and equipment submittal does not constitute authorization to procure the recommended spare parts.
- d. The spare parts supplier must be the manufacturer or a factory authorized representative of the manufacturer. The manufacturer will be responsible for any default of the representative that is not corrected by the representative in a timely and efficient manner. This responsibility includes replacing incorrect or defective parts, trouble shooting, and correcting problems that are traceable to the manufacturer's parts. The supplier shall provide, along with the spare parts list, a formal letter of certification from the manufacturer that the supplier is an authorized representative of the manufacturer.
- e. The supplier shall be a stocking facility of the manufacturer of the proposed parts, or the manufacturer must maintain a stocking facility of these parts on the West Coast, or the supplier can guarantee delivery of spare parts within seventy two (72) hours.
- f. The spare parts list shall be in addition to any other lists required under any other sections of these specifications. This list shall be delivered in electronic format and include but is not limited to the following:
 - 1) Current prices including delivery to the Jobsite;
 - 2) Original Equipment Manufacturer (OEM) part numbers, which identify interchangeability;
 - 3) Make and type of system, subsystem, and equipment as well as Model number;
 - 4) Size;
 - 5) Supplier's address and telephone number;
 - 6) Address and phone number of local representative;
 - 7) Address and phone number of servicing location;
 - 8) Certificate of certification from the manufacturer;
 - 9) Materials;
 - 10) Special tools, lubricants and/or fuels;
 - 11) Estimated delivery lead times;
 - 12) Warranty: State terms of warranty of spare parts offered;
 - 13) Cross-sectional, exploded view or assembly-type drawing with part numbers; and
 - 14) Manufacturer's price list catalog.
- g. Upon approval of the spare parts list, and no less than thirty (30) days prior to substantial completion of a project component or the entire project, deliver tools, spare parts, extra materials, and similar items to location designated by LAWA.
- h. The DESIGN-BUILDER shall be responsible for proper storage and protection of the spare parts until delivered to LAWA.
- i. Spare parts should be supplied in the manufacturer's original packaging and shall be

new and unused. A statement shall be included to clearly indicate that the spare parts are new and unused.

3. Emergency Instructions

- a. Content: Organize manual into separate section for each of the following:
 - 1) Type of emergency
 - 2) Emergency instructions and procedures (Job Plans)
- b. Type of emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, and equipment:
 - 1) Fire;
 - 2) Flood;
 - 3) Earthquake;
 - 4) Gas leak;
 - 5) Water leak;
 - 6) Power failure;
 - 7) Water outage;
 - 8) Systems, subsystems, and equipment failure; and
 - 9) Chemical release or spill.
- c. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of operating personnel for notification of installer, supplier and manufacturer to maintain warranties.
- d. Emergency Procedures: Include the following, as applicable:
 - 1) Instructions on stopping;
 - 2) Shutdown instructions for each type of emergency;
 - 3) Operating instructions for conditions outside normal operating limits;
 - 4) Required sequences for electric or electronic systems; and
 - 5) Special operating instructions and procedures during emergency.

4. Operational Instructions

- a. Content: In addition to requirements of this Section, include operation data required in individual specification sections and the following information:
 - 1) Systems, subsystems, and equipment descriptions: use designations for systems, subsystems, and equipment indicated on contract documents;
 - 2) Performance and design criteria if DESIGN-BUILDER is designated design responsibility;
 - 3) Operating standards;
 - 4) Operating procedures;
 - 5) Operating logs;
 - 6) Wiring diagrams;

- 7) Control diagrams;
 - 8) Piped system diagrams;
 - 9) Precautions against improper use; and
 - 10) License requirements including inspection and renewal dates.
- b. Descriptions include the following:
- 1) Product name and model number: use designations for products indicated on contract documents;
 - 2) Manufacturer's name;
 - 3) Systems, subsystems, and equipment identification with serial number of each component;
 - 4) Systems, subsystems, and equipment function;
 - 5) Operating characteristics;
 - 6) Limiting conditions;
 - 7) Performance curves;
 - 8) Engineering data and tests;
 - 9) Manufacturer's recommended tolerances and clearances;
 - 10) Complete internal and connection wiring diagrams: circuit diagrams and schematics shall be down to component level;
 - 11) Complete programming procedures and ladder logic documentation for all computer controlled, programmable logic controllers and automated systems and equipment;
 - 12) Approved isometric drawings of piping systems; and
 - 13) Complete nomenclature and number of replacement parts.
- c. Operating Procedures include the following, as applicable:
- 1) Startup procedures;
 - 2) Systems, subsystems, and equipment break-in procedures;
 - 3) Routine and normal operating instructions;
 - 4) Instructions on stopping;
 - 5) Normal shutdown instructions;
 - 6) Seasonal and weekend operating instructions;
 - 7) Instructions regarding load changes;
 - 8) Recommended "turn-around" cycles;
 - 9) Required sequences for electric or electronic systems;
 - 10) All special operating instructions and procedures; and
 - 11) Inspection procedures.
- d. Systems, subsystems, and equipment includes exploded views and schematics of

- each assembly.
- e. Systems, subsystems, and equipment controls: Describe the sequence of operation and diagram controls as installed.
- f. Piped Systems: Diagram piping as installed and identify color-coding where required for identification.
- 5. Maintenance Instructions
 - a. Product Maintenance Manuals: Include each product, material, and finish
 - 1) Include the following as applicable:
 - a. Product name and model number;
 - b. Manufacturer's name;
 - c. Color, pattern, and texture;
 - d. Material and chemical composition; and
 - e. Reordering information for specially manufactured products.
 - 2) Include manufacturer's written recommendations as applicable and the following:
 - a. Inspection procedures;
 - b. Types of cleaning agents to be used and methods of cleaning;
 - c. List of cleaning agents and methods of cleaning detrimental to product;
 - d. Schedule for routine cleaning and maintenance; and
 - ~~f. e.~~ Repair instructions – include local sources of materials and related services.
 - b. Systems, subsystems, and Equipment Maintenance Manuals: For each system, subsystem and equipment
 - 1) Include manufacturer's maintenance documentation as applicable including the following for each system, subsystem, and equipment:
 - a. Standard maintenance instructions and bulletins;
 - b. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly;
 - c. Identification and nomenclature of parts and components;
 - d. Include service, calibration, and lubrication requirements and standard time allotments;
 - e. Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies; and
 - f. Include manufacturer forms for recording maintenance.
 - 2) List the following information and any items that detail essential maintenance procedures:
 - a. Test and inspection instructions;
 - b. Trouble-shooting guide;
 - c. Precautions against improper maintenance;

- d. Disassembly: component removal, repair, and replacement; and reassembly instructions; and
- e. Aligning, adjusting, and checking instructions.
- 3) The maintenance manual letters are to be on the front cover of the maintenance manuals.
- 4) When a DESIGN-BUILDER performs maintenance work prior to LAWA acceptance of the facility, the information required is to be submitted in a format approved by LAWA on monthly basis to the project closeout.

I. Warranty Submittals

- 1. Submit written warranties to LAWA as required in the closeout procedures, and in accordance with the DESIGN-BUILDER's LAWA approved closeout plan and schedule as approved by LAWA and at least thirty (30) days prior to the request for substantial completion of a project component or the entire project. If the Certificate of Substantial Completion designates commencement date for warranties other than date of substantial completion for work, or designated portion of work, submit written warranties upon request of LAWA.
- 2. When a designated portion of work is completed and occupied or used by City, by separate agreement with DESIGN-BUILDER during construction period, submit properly executed warranties to LAWA as required by the closeout procedures.
- 3. When contract documents require DESIGN-BUILDER and subcontractor, supplier or manufacturer to execute special warranty, prepare written document that contains appropriate terms and identification, ready for execution by required parties. Submit draft to LAWA, for approval prior to final execution.
- 4. Refer to other sections for specific content requirements and particular requirements for submitting special warranties.
- 5. Form of Submittal: At final completion compile two copies of each required warranty properly executed by DESIGN-BUILDER, or by subcontractor, supplier, or manufacturer. Organize warranty documents into orderly sequence based on table of contents of project Manual.
- 6. Bind warranties in heavy-duty, commercial-quality, durable 3-ring, vinyl-covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8½ by 11 inch paper.
 - a. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark tab to identify product or installation. Provide typed description of product or installation, including name of product, and name, address, and telephone number of installer.
 - b. Identify each binder on front and spine with typed or printed title "WARRANTIES," project title or name, and name of DESIGN-BUILDER.
 - c. When warranted construction requires operation and maintenance manuals, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.
 - d. Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide a table of contents at the beginning of the document.

- 1) Provide duplicate notarized copies of warranties in operation and maintenance manuals.
- 2) Execute and assemble documents from subcontractors, suppliers, and manufacturers.
- 3) Manufacturer's disclaimers and limitations on product warranties do not relieve DESIGN-BUILDER of warranty on the work that incorporates the products.
- 4) When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such failure or must be removed and replaced to provide access for correction of warranted construction.
- 5) When Work covered by warranty has failed and has been corrected, reinstate warranty by written endorsement. Reinstated warranty shall be equal to original warranty with equitable adjustment for depreciation.
- 6) Upon determination that work covered by warranty has failed, replace or repair Work to an acceptable condition complying with requirements of the contract documents.

END OF PR-25 PROJECT RECORD DOCUMENTS

PR- 26 COMMISSIONING AND TRAINING

1. GENERAL

- A. The following requirements apply to the work or portion of the work performed on airport property. Work that is performed outside the jurisdiction of LAWA shall be performed in accordance with the requirements of the AHJ. All requirements for startup, testing and training shall be reviewed and complied with in accordance with the AHJ and shall be coordinated with LAWA.
- B. These requirements apply and are to be supplemented with LADBS building requirements.
- C. The DESIGN-BUILDER shall assure LAWA and provide documentation that all component, subsystem and system designs, installations and implementations perform to meet or exceed the requirements of the design and applicable standards.
- D. Startup, Testing and Training Summary
 - 1. The DESIGN-BUILDER shall design and provide complete and operational roadway network systems, mechanical, plumbing, electrical, and communications systems.
 - 2. The DESIGN-BUILDER shall systematically document that specified components and systems have been installed and started up properly and then functionally tested to verify proper operation through all sequences of operation and conditions.
 - 3. The DESIGN-BUILDER shall provide training of LAWA's operations personnel and include all training manuals, instructions and sessions and complete and final project closeout documents. Refer to the project closeout PR-27 for requirements.
 - 4. The DESIGN-BUILDER shall produce a startup and testing plan that will be implemented during the construction and is a prerequisite to fulfilling the project's closeout procedures. The plan shall include the detailed descriptions of the tests and demonstrations, all test forms, training process and schedule for performing startup and testing and training.
- E. Startup and testing shall:
 - 1. Verify that applicable equipment and systems are constructed and installed according to the contract documents, utility requirements, manufacturer's recommendations and industry accepted minimum standards and that they receive adequate operational checkout and functional testing including restart, emergency or abnormal events by the DESIGN-BUILDER and its subcontractor.
 - 2. Verify and document proper performance and interface functionality of systems, subsystems, and equipment.

2. STARTUP AND TESTING ACTIVITIES

- A. The DESIGN-BUILDER is responsible for the installation, startup and testing, and functional performance of the project in accordance with LAWA's requirements and related codes, standards, and contract documents. The DESIGN-BUILDER shall certify that the work is built, and is functionally performing in accordance with the requirement of the standards and contract documents.
- B. The DESIGN-BUILDER and its subcontractor responsible for system, subsystem and equipment installation shall assign representatives with expertise and authority to act on their

behalf throughout the project's construction and closeout, and they shall participate in and perform startup and testing related activities including, but not limited to meetings, scheduling, O&M and training preparation, final review and acceptance meetings.

- C. The DESIGN-BUILDER will develop a startup and testing plan which outlines the activities that shall be included in the project schedule, cost loaded and approved by LAWA. The following narrative provides a brief overview of the typical startup and testing tasks during construction.
1. Startup and testing team meetings will be required throughout the project's design, construction and closeout, scheduled and documented by the DESIGN-BUILDER with necessary parties attending to plan, scope, coordinate, schedule future activities and resolve problems.
 2. Equipment documentation is submitted by the DESIGN-BUILDER, during the submittal process described elsewhere in this PR and in the scope of work. The DESIGN-BUILDER ensures that LAWA receives copies of all pertinent submittals both electronically and in paper per the submittal project requirements.
 3. The startup or pre-functional checklists shall be generated and approved the DESIGN-BUILDER before being submitted for review and approval by LAWA. The checklists shall be completed by the DESIGN-BUILDER, before and during the startup process.
 4. Pre-functional checklists, startup shall be completed before functional performance testing begins.
 5. The DESIGN-BUILDER ensures that the subcontractor's pre-functional checklists are executed and documented and that startup and initial checkout are performed. This includes witnessing all startup of selected equipment. Any testing failure is to be corrected at no additional cost to LAWA, and a re-test is to be performed, observed, and documented.
 6. The Functional Performance Testing process is managed by the DESIGN-BUILDER in coordination with LAWA. The DESIGN-BUILDER's subcontractor performing the installations shall submit functional performance test plans for all systems and equipment being installed to the DESIGN-BUILDER. The plans shall include all necessary test forms to demonstrate that the installation meets the requirements of the contract documents including all control functions, sequence of operations and interfaces with other systems. Interface Control Diagrams for system to system interfaces shall also be included in the test plans.
 7. The startup and testing process is executed by the DESIGN-BUILDER and its subcontractor, who shall provide all support equipment and materials to execute and complete the startup and testing process.
 8. The DESIGN-BUILDER reviews the Operational and Maintenance (O&M) Manuals with documentation for conformance to the requirements of the project closeout PR-27. The DESIGN-BUILDER submits O&M manuals for review and approval by the design professionals in conjunction with LAWA personnel.
 9. Startup and testing shall be completed before substantial completion and in accordance with the startup and testing plan.
 10. The DESIGN-BUILDER shall develop a training plan, perform reviews, pre-approve content, coordinate, and implement the training provided by their subcontractor. Training agendas and syllabi are developed by the subcontractor and reviewed by the DESIGN-BUILDER, and submitted for review and approval.

3. **STARTUP AND TESTING PLAN**

A. The DESIGN-BUILDER shall develop a startup and testing plan that describes the overall startup and testing process including roles and responsibilities for all parties for all phases of the project and throughout the acceptance and the warranty period.

1. Design/Preconstruction Stage

a. The goals of the startup and testing tasks during the preconstruction of the project include but are not limited to:

- 1) Revision/completion of the design which reflect the actual final utility system configurations and intended operation, including normal, abnormal, by-pass, shutdown, road closures and restart for all systems, subsystems, and equipment.
- 2) Final contract documents periodic review shall be conducted with LAWA for constructability, operability and maintainability assessment.
- 3) Development of the startup and testing outline and plan by the DESIGN-BUILDER per the procedures identified elsewhere in this PR and in the scope of work.

2. Construction Stage

a. The goals of the startup and testing tasks during construction of the project include but are not limited to the following:

- 1) Updating the design as required reflecting any changes made during construction.
- 2) Review, comment and approve DESIGN-BUILDER submittals.
- 3) Scheduling, planning and final preparation for verification testing during closeout and acceptance period.
- 4) Development of the startup and testing plans by the DESIGN-BUILDER's subcontractor.
- 5) Verifying that all systems to be commissioned are constructed and installed per the contract documents and the utility requirements. If discrepancies are found, document on an issues log and identify mitigation measures for LAWA review.
- 6) Modify, review and approve startup and testing, training and closeout plans and schedules as required.

3. Acceptance Stage

a. Acceptance phase activities shall be defined in the project's schedule, and coordinated with and clearly defined in the DESIGN-BUILDER's project closeout plan.

b. The goals of the startup and testing tasks during the acceptance phase of the project include but are not limited to the following:

- 1) Verifying that all systems, subsystems, and equipment to be commissioned are constructed, installed and operate to meet the contract documents and utility's operation performance requirements.
- 2) Providing LAWA operation and maintenance staff, and other stakeholders useful documentation.

- 3) Training LAWA operations and maintenance staff, utilities' staff and other stakeholders on the design intent and operation of equipment and systems.
 - 4) Documenting the startup and testing process for future reference and use by LAWA O&M Staff, utilities and other stakeholders. The startup and testing report shall include but not limited to:
 - a) Introduction
 - b) Executive Summary
 - c) Startup and Testing Plans
 - d) Project Requirements / Basis of Design
 - e) Startup and Testing Specification
 - f) O&M Training Records
 - g) Functional Performance Test Reports
 - h) Issues Log
 - i) Startup and Testing Coordination Meeting Notes
 - j) DESIGN-BUILDER's and its subcontractors' test reports
 - k) Prefunctional Checklists
 - l) Blank Functional Test Procedures for retesting by LAWA or utility owners
4. Warranty Period
- a. The goals of the startup and testing tasks during the warranty period of the project include but not limited to the following:
 - 1) Revision/completion of the design requirements to reflect actual final system configurations and intended operation.
 - 2) Review of functional performance of systems tested to determine their level of performance ten (10) months after final acceptance, against the criteria and performance parameters established by LAWA and the utility owners and documented during Functional Performance testing.

4. REQUIRED MEETINGS

- A. Startup and Testing Kickoff Meeting: The DESIGN-BUILDER's coordinator will coordinate with LAWA to schedule, plan and conduct a Kickoff meeting for the startup and testing teams. The intent of this meeting is to introduce the key players of the startup and testing team and develop a go-forward process.
- B. Startup and Testing Meetings and Coordination:
 1. The DESIGN-BUILDER shall attend the startup and testing team coordination meetings throughout the project's construction period until completion of project closeout. The startup and testing team coordination meetings shall be planned, conducted and documented by the DESIGN-BUILDER as construction progresses. These meetings shall include but are not limited to coordination, scheduling, progress, deficiency and conflict resolution, and planning issues. These meetings will be held at least monthly, until the start of the acceptance phase when they may be held as frequently as once a week.

2. The DESIGN-BUILDER shall attend startup and testing planning and coordination work sessions during design. The startup and testing planning and coordination meetings are intended to review the startup and testing plan and resolve issues of equipment and systems identified as requiring startup and testing during design. These meetings may include but are not limited to:
 - a. Water and power distribution
 - b. Natural Gas distribution
 - c. Sewer collection and transmission
 - d. Roadway and ITS network system (lighting, wayfinding, signage, traffic signal, etc.)
 - e. Special Systems, such as alarm systems, telecommunication, fiber optics and horizontal cabling
 - f. Temporary systems
3. Pretesting Meetings: The DESIGN-BUILDER shall attend biweekly pretest meetings of the startup and testing team to review startup procedures, testing procedures, testing personnel and instrumentation requirements, and manufacturers' authorized service representative services for each system, subsystem, equipment, and component to be tested. Pretest meetings shall start at least four months prior to project completion.
4. Testing Coordination: The DESIGN-BUILDER shall coordinate sequence of testing activities weekly to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
5. Startup and testing meeting minutes and reports shall be distributed to LAWA within five (5) days of meeting.

5. SYSTEMS AND EQUIPMENT TO BE STARTED AND TESTED

- A. The systems and equipment to be started and tested shall be identified by the DESIGN-BUILDER and verified by all stakeholders, with the assistance of LAWA and LAWA's consultants during the design of the project. Systems that will require startup and testing may include but are not limited to roadway and its network, Pedestrian bridges, water, power, sewer, telecommunications and natural gas.
 1. The material and equipment matrix shall be formatted as a computerized spreadsheet with capability for printing of various data columns (ranges) to meet documentation requirements a various stages of construction, and for different purposes as required by the various technical specifications of the contract documents. The matrix shall be submitted as part of the startup and testing plan's development for review as part of the startup and testing plan's submission requirements stated elsewhere in this PR and in the scope of work, as well as during pre-startup and testing and startup and testing meetings. The electronic database program shall be used for all startup and testing activities.
 2. The matrix shall identify all operable devices, subsystems, and equipment to be provided and are to be grouped by the system they primarily support. When sorted by column for system identification, the resulting printout should identify all system components, regardless of whether they are of water, power, natural gas, sewerage, low voltage systems or other in nature. The matrix shall include the following data, as a minimum, for

each device, and shall allow for additional columns for subsequent data requirements.

- a. Brief equipment identification text
 - b. Equipment or device id number
 - c. Associated network system for roadway, if any
 - d. Governing Specification Section
 - e. Appropriate submittal reference number(s)
 - f. Installing location, by room number or column coordinates, as indicated on the Contract Documents.
3. In addition to including the material and equipment matrix as part of the startup and testing plan and any subsequent updates to the matrix that require LAWA review for approval, the final material and equipment matrix for each device or systems is to be provided as an attachment to the DESIGN-BUILDER's request/notice for check out or startup of equipment or systems.

6. TEST EQUIPMENT

- A. All standard testing equipment requiring initial checkout, startup and functional performance testing shall be provided by the DESIGN-BUILDER and its subcontractor for the equipment being tested. This includes, but is not limited to, two-way radios, meters and data recorders.
1. Special equipment, tools, and instruments required for testing equipment according to these contract documents shall be provided by the DESIGN-BUILDER and with the exception of TAB equipment, turned over to LAWA at project closeout.
 2. All testing equipment shall be of sufficient quality and accuracy to test and/or measure system performance within the tolerances specified in the contract documents. If not otherwise noted, the following minimum requirements apply: Pressure sensors shall have an accuracy of +/- 2.0% of the value range being measured (not full range of meter) and have been calibrated within the last year. All equipment shall be calibrated according to the manufacturer's recommended intervals and when dropped or damaged. Calibration tags shall be affixed or certificates readily available.

7. PROJECT SCHEDULE

The DESIGN-BUILDER shall incorporate all startup and testing coordination and execution activities into the project's schedule and review all monthly updates with LAWA prior to submitting for approval.

8. PRIOR TO STARTUP

- A. Prior to equipment/system start-up the following conditions will be required:
1. Provide LAWA for review and approval a comprehensive start up plan from the DESIGN-BUILDER and subcontractor using manufacturer's approved start up methods and pre-start-up checklist if applicable.
 2. No equipment will be started until all applicable requirements of the contract documents have been completed for the installation and safe operations of the equipment being

started.

3. Written certification that the manufacturers' representative has verified that the installation and operation of the system or component is in accordance with their published recommendations (if required by contract document).
4. Provide no less than a three (3) day notification in writing to LAWA that startup is pending. Startup procedures shall be witnessed by the Project's Engineer of Record, and may be witnessed by LAWA, LAWA's consultants, and the utility owners.
5. All required field testing has been completed and testing forms approved by LAWA.

9. STARTUP, SYSTEM READINESS CHECKLISTS AND INITIAL CHECKOUT

- A. The DESIGN-BUILDER or its subcontractor shall not energize or activate any system in final use until the following conditions have been met:
 1. The DESIGN-BUILDER has verified that all wiring and support components for equipment are complete and have been tested in accordance with the technical specifications and/or the manufacturer's written recommendations.
 2. The DESIGN-BUILDER has verified and audited all control sensors types and locations, all piping specialties including balance, control, and isolation valves, all ductwork specialty items including turning devices, balance, fire, smoke, and control dampers, and access doors.
 3. The DESIGN-BUILDER has verified that each component device has been checked for proper lubrication, vibration isolation, drive rotation, belt tension, control sequence, or other conditions that may cause damage.
 4. The DESIGN-BUILDER has verified that all tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer and are in compliance with applicable specifications.
 5. The DESIGN-BUILDER has provided LAWA with a written three (3) day notice of intent to start-up the system for operational check-out. The completed startup and testing system readiness checklist, shall accompany the "Equipment or System Startup Request for Inspection Form" to be used for this notification.
 6. The DESIGN-BUILDER shall execute start-up under supervision of responsible manufacturer's or utility's representative in accordance with manufacturer's or utility's instructions and specification requirements if applicable.
 7. The DESIGN-BUILDER shall coordinate and schedule system(s) start-up in a timely manner so they can operate each system for a period of time sufficient to evaluate and adjust performance as necessary, prior to demonstrating the system to LAWA. All systems shall be operational, and shall have been successfully inspected by LAWA prior to the DESIGN-BUILDER requesting substantial completion inspections for the project and in accordance with the closeout procedures as required in the project requirements for project closeout.

10. FUNCTIONAL PERFORMANCE TESTING

- A. The DESIGN-BUILDER will develop and issue functional performance test procedures for each piece of equipment or system to be started and tested as required by the technical

specifications or utility owner. The DESIGN-BUILDER shall perform the functional performance test procedures observed by LAWA and the DESIGN-BUILDER's startup and testing coordinator.

- B. The DESIGN-BUILDER shall provide personnel and equipment to perform the Functional Performance Test Procedures. This includes any specialty subcontractors (controls CM, manufacturers reps, vendors, consultants, etc.) as required by LAWA and the DESIGN-BUILDER's startup and testing coordinator.
- C. The following requirements must be met before the functional performance test process will begin:
 - 1. All materials and equipment to be commissioned have had start-up procedures completed.
 - 2. System readiness checklists and test reports are completed, signed and submitted to the A/E and LAWA.
- D. Notify all personnel on the project site prior to any start-up or testing which may create a hazardous or dangerous condition. Coordinate with other trades.
- E. Initiate, develop, and document functional performance test procedures. Include functional performance test procedures data sheets for each system or equipment. Determine actual system performance and compliance with the design. Personnel experienced in the technical aspects of each system to be started and tested shall be engaged.
- F. Test procedures shall fully describe system configuration and steps required for each test and be appropriately documented so that another party can repeat the tests with virtually identical results.
- G. Functional test procedures must confirm the performance of systems. Comply with the requirements of the contract documents. The functional test shall meet the design intent and applicable code under which the work was permitted. When a system is accepted, LAWA and the appropriate utility owner must be assured that the system is complete, works as intended, is correctly documented and that the required training in operation and maintenance of the system is accomplished per the contract's requirements.
- H. Any mechanical equipment requires integral safety devices to stop/prevent equipment operation unless minimum safety standards or conditions are met. This shall include adequate oil pressure, proof-of-flow, non-freezing conditions, and maximum head pressure. Functional performance test procedures shall demonstrate the actual performance of safety shutoffs in real or closely-simulated conditions of failure.

11. DEFERRED TESTING

Deferred testing may be required to address seasonal conditions that may prohibit a required test, or to accommodate changes in the project schedule. All such changes shall be coordinated with the construction schedule monthly updates and submitted for LAWA's review and approval.

12. SUBMITTALS

- A. Startup and Testing Coordinator Qualifications Submittal: The DESIGN-BUILDER shall submit each startup and testing coordinator resume and sample documents in a timely fashion to LAWA for approval; which shall include the following:

1. Education and technical training.
 2. Present employment:
 3. Company name and address
 4. Present title and job description
 5. History of employment (include dates and positions held)
 6. Relevant work experience:
 7. Job name
 8. Position held
 9. Work history (include dates and positions held)
 10. Example of prior building startup and testing project performed by the proposed CxL:
 11. Submitted project shall be similar in startup and testing scope and complexity.
 12. Include test procedures developed by proposed CxL
- B. Test Checklists and Report Forms: The startup and testing coordinator shall submit sample checklists and forms to DESIGN-BUILDER's QC manager and subcontractor for review and comment. Submit each checklist and report form for review and approval by the A/E in conjunction with LAWA.
- C. The DESIGN-BUILDER shall provide the submittal schedule to LAWA per the requirements of the submittals PR. Prior to submission to LAWA, the DESIGN-BUILDER shall indicate on the submittal schedule which submittals are "Startup and Testing Related" for review and approval.
- D. The DESIGN-BUILDER shall submit all startup and testing outlines and plans to the A/E and LAWA for review and approval per the plan submission requirements identified elsewhere in this PR and the scope of work.
- E. The DESIGN-BUILDER shall provide one (1) copy of each startup and testing related submittal package and O&M Manual to LAWA at the same time the submittal package is issued to the A/E for review. See the project submittals PR-09 and the project closeout PR-27 for requirements.

13. REPORTING AND DOCUMENTATION

- A. Certificate of Readiness: Certificate of Readiness shall be signed by the DESIGN-BUILDER's, subcontractor(s) performing the installation, vendor(s), and the startup and testing coordinator certifying that systems, subsystems, equipment, materials and associated controls are ready for testing. Completed test checklists signed by the responsible parties shall accompany this certificate.
- B. Test and Inspection Reports: Startup and testing coordinator shall record test data, observations, and measurements on test checklists. Photographs, forms, and other means appropriate for the application shall be included with data.
- C. The startup and testing coordinator shall compile test and inspection reports and test and inspection certificates and submit to LAWA for review and approval. This includes all certifications, permits cards and other such forms that have been signed by the utility owner certifying or acknowledging successful completion of startup and testing.

- D. **Corrective Action Documents:** Startup and testing coordinator shall document corrective action taken for systems and equipment that fail tests. Include required modifications to systems and equipment and revisions to test procedures, if any. Retest systems and equipment requiring corrective action and document retest results.
- E. **Issues Log and Report:** Startup and testing coordinator shall prepare and maintain an electronic (Microsoft excel compatible) issues log that describes design, installation, and performance issues that are at variance with the utility owner requirements and contract documents. Identify and track issues as they are encountered, documenting the status of unresolved and resolved issues.
 - 1. **Creating an Issues Log Entry:**
 - a. Identify and document the CGMP or task order.
 - b. Identify the issue with unique numeric or alphanumeric identifier by which the issue may be tracked.
 - c. Assign a descriptive title, date and time of the issue, and person documenting issue for tracking.
 - d. Identify test number of test being performed at the time of the observation, if applicable, for cross-reference.
 - e. Identify system, subsystem, and equipment, and location to which the issue applies.
 - f. Include any information that may be helpful in diagnosing or evaluating the issue, and note recommended corrective action, identifying Cx team member responsible for corrective action and expected date of correction.
 - 2. **Documenting Issue Resolution:**
 - a. Log date correction is completed or the issue is resolved, identifying the person documenting the resolution.
 - b. Describe corrective action or resolution taken. Include description of diagnostic steps taken to determine root cause of the issue, if any.
 - c. Identify changes to the CGMP or Contract Documents that may require action.
 - d. State that correction was completed and system, subsystem and equipment are ready for retest, if applicable.
 - e. Identify person(s) who corrected or resolved the issue.
 - 3. **Issues Log Report:** On a periodic basis, but not less than for each startup and testing team meeting, startup and testing coordinator shall submit a written narrative for LAWA review of outstanding issues and a status update of the issues log. As a minimum, the startup and testing coordinator shall include the following information in the issues log and expand it in the narrative:
 - a. Issue number and title.
 - b. Date of the identification of the issue.
 - c. Name of the startup and testing team member assigned responsibility for resolution.
 - d. Expected date of correction.
- F. **Startup and Testing Report:** Startup and testing coordinator shall submit to LAWA results of the startup and testing process including unresolved issues and performance of systems,

subsystems, and equipment to for LAWA review. The startup and testing report shall indicate whether systems, subsystems, and equipment have been completed and are performing according to the utility owner requirements and contract documents. The startup and testing report shall include, but is not limited to, the following:

1. Lists and explanations of substitutions; compromises; variances in to the CGMP or utility owner requirements; record of conditions; and, if appropriate, recommendations for resolution.
 2. Startup and testing coordinator startup and testing plan.
 3. Corrective modification documentation.
 4. Issues log.
 5. Completed test checklist(s).
 6. Listing of off-season test(s) not performed and a schedule for their completion (if applicable).
- G. Product Failure (Due to Manufacturer Defect): If 10% (or three, whichever is greater) of identical pieces of equipment or material fail to perform to the utility owner requirements or contract documents due to a manufacturing defect, not allowing it to meet its submitted performance specification, all identical units may be considered unacceptable by LAWA. In such case, the DESIGN-BUILDER shall provide the LAWA with the following:
1. Within one (1) week of notification from LAWA, the DESIGN-BUILDER or manufacturer's representative shall examine all other identical units making a record of the findings. The findings shall be provided to LAWA within two (2) weeks of the original notice.
 2. Within two (2) weeks of the original notification, the DESIGN-BUILDER or manufacturer shall provide a signed and dated, written explanation of the problem, cause of failures, etc., and all proposed solutions. The proposed solutions shall not significantly exceed the specification requirements of the original installation.
 3. LAWA will determine whether a replacement of all identical units or a repair is acceptable.
 4. Two examples, where applicable, of the proposed solution shall be installed by the DESIGN-BUILDER, and LAWA, shall be allowed to test the installation for up to one week, upon which LAWA, will decide whether to accept the solution.
 5. Upon acceptance, the DESIGN-BUILDER and/or manufacturer shall replace or repair all identical items, at their expense. The replacement/repair work shall proceed with reasonable speed beginning within one week from when parts can be obtained.

14. DEMONSTRATION AND DESIGN-BUILDER PROVIDED TRAINING

- A. This section includes administrative and procedural requirements for providing demonstrations and training to LAWA, utility owners and tenant personnel for those items requiring training in accordance with the technical specifications, including the following:
1. Demonstration of operation of systems, subsystems, and equipment.
 2. Development of training programs that will identify skills and knowledge necessary to safely and efficiently operate, adjust, and maintain the project.
 3. Training in operation, adjustment, and maintenance of products, equipment, and systems.

- B. The DESIGN-BUILDER shall provide and include in its Startup and Testing Plan training coordination, scheduling of subcontractor, and ensure that training is completed. Develop an instruction program that includes individual training modules for each system, subsystem, and equipment as provided herein.
- C. All training shall be coordinated through LAWA. Repeat training sessions shall be provided for operation and maintenance shift workers.
- D. Training may not occur before performance testing is complete except at the discretion of LAWA where required by the facility operators to assist the DESIGN-BUILDER in the performance testing.
- E. Training Preparation Conference: Before operation and maintenance training, the startup and testing coordinator shall convene training preparation conferences to include LAWA's operation and maintenance personnel, DESIGN-BUILDER, and subcontractor. In addition to requirements specified, perform the following:
 - 1. Review the Design
 - 2. Review installed systems, subsystems, and equipment.
 - 3. Review instructor qualifications.
 - 4. Review instructional methods and procedures.
 - 5. Review training module outlines and contents.
 - 6. Review course materials (including operation and maintenance manuals).
 - 7. Inspect and discuss locations and other facilities required for instruction.
 - 8. Review and finalize training schedule and verify availability of educational materials, instructors, A/V equipment, and facilities needed to avoid delays.
 - 9. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.
- F. All demonstration, training, and instructional sessions will be monitored and approved by LAWA. Any session or portion thereof deemed unsatisfactory, based on evaluation of the training shall be repeated by the manufacturer or manufacturer's representative at no additional cost to LAWA.
- G. When deemed appropriate by LAWA, field instruction to LAWA and/or tenant personnel designated to receive training may be acceptable as a training session. The instruction shall be provided by a field service technician qualified to perform corrective or preventive maintenance, troubleshooting, or related field services.
- H. Training shall be conducted so that home study will not be required. The training shall include courses, which combine classroom and field hands-on training that is structured and scheduled to facilitate trainee comprehension of the subject material. Courses shall be continuous, and the field training shall immediately follow the classroom instruction.
- I. Video Recording of the training sessions shall be provided by the DESIGN-BUILDER and added to the O&M manuals. Video shall meet or exceed the industry standard of quality. In addition, factory training high definition videos/DVD identifying key troubleshooting, repair, service and/or replacement techniques shall be provided by the DESIGN-BUILDER and reviewed with LAWA.
- J. LAWA reserves the right to videotape any and all training materials and presentations, except for proprietary material, and retain all rights for usage of such recorded material to train.

- K. Refer to the contract documents for specific requirements for demonstration, training, and instruction of operation adjustment, and maintenance of products, equipment, and systems.

15. DEVELOPMENT AND TRAINING PROGRAM

- A. With the exception of safety and overview training, training shall be divided into separate categories for operations training and maintenance training with maintenance training further broken down to specific crafts.
- B. No actual operations training of a piece of equipment will be permitted until the equipment is properly installed and is operational.
- C. Operations training shall be a prerequisite to the beneficial use of the facility or any portion thereof and shall be completed a minimum of one week prior to substantial completion being requested by the DESIGN-BUILDER.
- D. Maintenance training shall occur after and within thirty (30) days of the substantial completion and in accordance with the DESIGN-BUILDER's approved startup and testing plan, closeout plan and schedule.

16. TRAINING AND PROGRAM SUBMITTALS

- A. The DESIGN-BUILDER shall provide the training submittals in the following order for review and approval by the A/E and LAWA.
 - 1. First draft in accordance with the DESIGN-BUILDER's startup and testing plan and closeout plan and schedule as approved by the A/E and LAWA and at least sixty (60) days prior to proposed instruction date.
 - 2. Final draft in accordance with the DESIGN-BUILDER's startup and testing plan and closeout plan and schedule as approved by the A/E and LAWA and at least thirty (30) days prior to proposed instruction date.
- B. The "First Draft" of the training material shall, as a minimum, contain the following:
 - 1. Instructional text that details the specific topics of training for the system. These topics are detailed below. All text must be complete. Incomplete sections, paragraphs, etc., shall not be acceptable.
 - 2. Power Point, Media Player, and any other type of visual training aid that will be used in conjunction with the training plan.
 - 3. Reference materials as detailed in the lesson plan (e.g. handout, manufacturer catalogues, brochures, and pamphlets). All material shall be reviewed by LAWA to determine applicability and functionality. Reference materials that do not pass this review shall be modified and resubmitted within two weeks for approval.
 - 4. No actual classroom or field training shall be scheduled unless this material is approved.
 - 5. The DESIGN-BUILDER shall not proceed to the "Final Draft" stage of training material until LAWA has approved the "First Draft".
 - 6. With the final draft of the training material, the DESIGN-BUILDER shall submit a training agenda that provides the following information:
 - 7. Company name, address, and telephone number(s) for the vendor.

8. Name and telephone number(s) of the vendor training representative.
 9. Duration of class (total hours).
 10. Breakdown of class and duration in hours of each training activity.
 11. Target audience (e.g. operators, maintenance personnel, etc.).
 12. Audiovisual requirements.
- C. After the DESIGN-BUILDER has received approval of the "Final Draft" of the training material and the training agenda from LAWA, only then can the actual training be scheduled. DESIGN-BUILDER shall submit his proposed training schedule to LAWA for approval. The proposed training schedule shall be submitted in accordance with the DESIGN-BUILDER's startup and testing plan, closeout plan and schedule as approved by LAWA and at a minimum of sixty (60) days prior to the start of the training. If the proposed training schedule is approved, then it becomes the final training schedule.
- D. Any compensation that is paid to LAWA personnel as a result of cancellation of classes that begin more than thirty (30) minutes after the scheduled start time shall be reimbursed to LAWA by the DESIGN-BUILDER. An exception is when a class is canceled or delayed due to actions by LAWA. LAWA will monitor the starting times of scheduled classes.
- E. The scheduling, content and duration of training programs has to be coordinated with the DESIGN-BUILDER's approved startup and testing plan and the DESIGN-BUILDER's closeout plan and subject to approval.
- F. The review of the training material does not constitute its approval unless specifically stated so. The training material submittal shall contain, but not be limited to, the following:
1. Sufficient background information on each instructor for various sessions shall be provided to allow evaluation of the proposed instructor's qualifications and his capability of training the specific discipline.
 2. At the completion of the training, the DESIGN-BUILDER shall forward to LAWA one complete electronic set of training materials and support material for each defined training category.

17. DEMONSTRATION

- A. In accordance with the DESIGN-BUILDER's startup and testing plan, closeout plan and schedule as approved by LAWA and at least four (4) weeks prior to date of substantial completion, submit for LAWA's approval, a proposed outline of demonstration program including a schedule of proposed dates, times, length. Demonstration shall include, but not limited to, the following procedures:
1. Start-up
 2. Shutdown
 3. Emergency operations
 4. Noise and vibration adjustments
 5. Safety procedures
 6. Economy and efficiency adjustments
 7. Effective energy utilization

- B. Demonstrate products, systems, and equipment to LAWA-specified personnel two (2) weeks prior to substantial completion.
- C. For each demonstration submit list of participants in attendance.
- D. Provide two copies of high definition and professionally edited video on DVD of each demonstration and instructions session.
- E. For equipment or systems requiring seasonal operation, perform demonstration for other season within six (6) months.
- F. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with personnel in detail to explain all aspects of operation and maintenance.
- G. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at equipment location.
- H. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

18. OPERATIONAL TRAINING

- A. Manufacturer supplied (vendor) equipment training for all major equipment and subsystems shall be provided for the end users.
- B. The vendor training shall be provided by qualified instructors of the equipment manufacturers, i.e.: equipment field startup technician or their representative, as approved by the A/E and LAWA and may include both on and off-site training venues. Generally, manufacturer sales representatives will not be acceptable.
- C. Classroom training shall be structured to develop a basic understanding of the design, function, and capabilities of the equipment and the interrelationship with the process. In addition, routine operational and preventive maintenance, safety considerations, responses to abnormalities and startup, shutdown, and troubleshooting will be covered. Field training shall be scheduled to commence immediately following the classroom training and shall stress hands-on, performance-based application of the classroom training.
- D. Equipment shall be started and relevant systems and components shall be demonstrated.
- E. Training schedule: The DESIGN-BUILDER shall provide an operation and maintenance training schedule to be conducted immediately following vendor equipment startup of the equipment.
- F. The scheduling, content and duration of training programs has to be coordinated with the DESIGN-BUILDER's startup and testing plan and the DESIGN-BUILDER's closeout plan and subject to approval.

19. MAINTENANCE TRAINING

- A. The maintenance training shall include the function, adjustment, repair, and replacement of all components related to the trainee's trade. Safety aspects shall also be stressed.
- B. The training shall include, but not be limited to, the following:
 - 1. Preventive and corrective maintenance procedures, including replacement of parts; lubrication quantities, types, frequencies, and application points; and an estimate of time

to perform such procedures.

2. Special tools, techniques, or procedures required for either preventive or corrective maintenance of equipment, or its auxiliary or support systems.
 3. Procedures to perform adjustments required for alignment, wear, and calibration for all preventive and corrective maintenance, and an estimate of time required performing such procedures.
 4. Assembly and disassembly procedures, including parts lists required for appropriate preventive and/or corrective maintenance.
 5. Maintenance, overhauls, troubleshooting of equipment, and auxiliary or support systems.
 6. Models, "exploded" views, and/or audiovisual materials shall be used for this training. These materials shall be turned over to LAWA upon completion of training.
- C. Hands-on field training shall be provided, subject to the approval.
- D. The scheduling, content and duration of training programs has to be coordinated with the DESIGN-BUILDER's startup and testing plan and the DESIGN-BUILDER's closeout Plan and subject to LAWA's approval.

END OF PR-26 COMMISSIONING AND TRAINING

PR- 27 PROJECT CLOSEOUT**1. GENERAL**

To allow for a timely closeout process and ensure compliance with the administrative and contract closure requirements described in this project requirement, the DESIGN-BUILDER shall produce and submit a closeout plan for LAWA's review and approval at least sixty (60) days prior to the request for substantial completion. The plan shall incorporate the minimum requirements specified herein.

2. PRE-SUBSTANTIAL COMPLETION WORK

- A. In order to facilitate the preparation, scheduling and planning of all activities associated with project closeout, all submittals and activities specified below shall be completed prior to the DESIGN-BUILDER submitting a notice of substantial completion.
- B. All Work, including component work of the contract shall be substantially completed in conformance with the contract documents and inspected and verified by the DESIGN-BUILDER's QC Manager.
- C. Operating equipment, roadway systems and subsystems must have been taken through start-up and sequence of operations procedures per the CxP as required in the commissioning project requirements.
- D. The DESIGN-BUILDER shall submit maintenance and operations manuals for preliminary review by LAWA a minimum of thirty (30) days prior to submitting notice of substantial completion.
- E. Testing of electrical, alarm and communications systems must be complete.
- F. Certification of life safety systems and equipment must be complete.
- G. DESIGN-BUILDER shall submit a required two-week advance notice of request for inspection for substantial completion.
- H. All operating systems must have been maintained by DESIGN-BUILDER in continuous operation for a minimum of two weeks in accordance with the CxP and as required in the commissioning project requirements.
- I. The DESIGN-BUILDER shall ensure all training of LAWA operations and maintenance personnel has been completed in accordance with the project requirements for demonstration and training prior to turning over any portion of the work under any condition. (See PR-26 "Project Commissioning and Training").
 - 1. Operations training shall be a prerequisite to the beneficial use of the facility or any portion thereof and shall be completed a minimum of one week prior to the beneficial use or substantial completion.
 - 2. Maintenance training shall occur thirty (30) days prior to beneficial use or substantial completion and in accordance with the DESIGN-BUILDER's approved CxP, closeout plan and schedule.

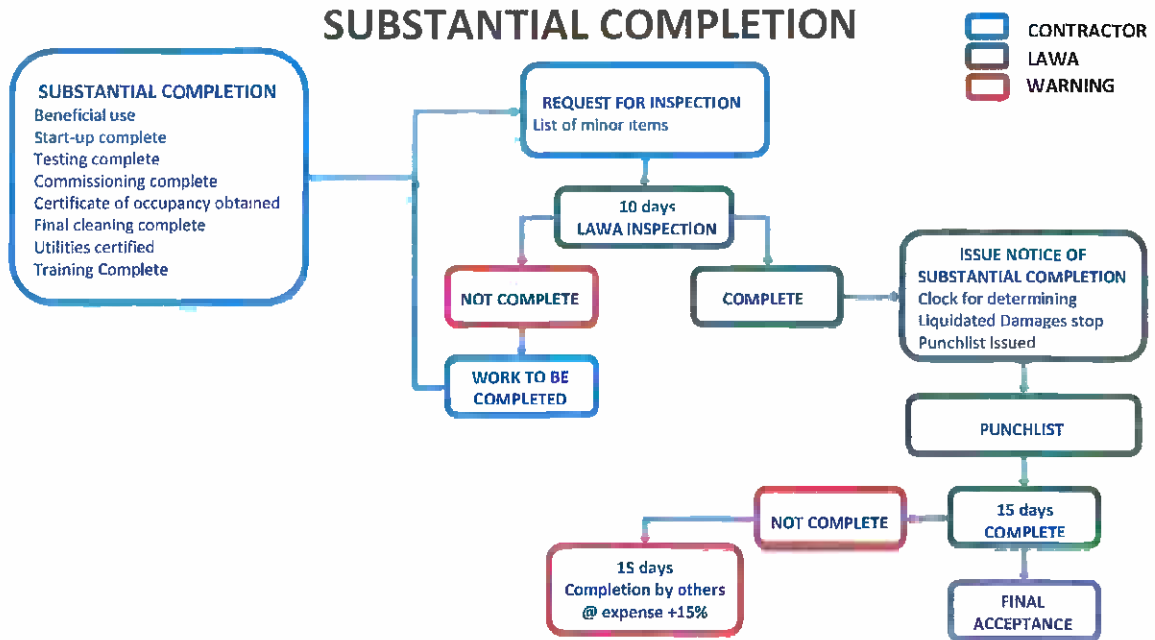
3. SUBSTANTIAL COMPLETION

- A. When the DESIGN-BUILDER considers that the work is substantially complete and has completed all quality control tests and inspections, the DESIGN-BUILDER shall notify LAWA that the work is completed in accordance with the contract documents and quality requirements and is ready for inspection utilizing a notice of substantial completion.
- B. The DESIGN-BUILDER shall include with its notice of substantial completion a list of minor items (DESIGN-BUILDER's punch list) to be completed or corrected that would not affect beneficial use. This list shall be generated by the DESIGN-BUILDER and shall ensure completion of the work necessary to accomplish substantial completion prior to scheduling the substantial completion inspection for their design professionals and LAWA. The DESIGN-BUILDER's QC Manager or designated representatives shall independently verify and confirm that the work is installed per the project's quality requirements and that it is ready for the substantial completion inspection. Refer to the PR-13/14 "Quality Assurance" for requirements.
- C. The DESIGN-BUILDER shall submit the listing of minor items to be completed or corrected in an electronic format approved by LAWA. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by DESIGN-BUILDER that are outside limits of construction.
 1. In addition to the information required to identify location of punch list items, responsible parties, and proposed action, include following information in the punch list software and at the top of each printable page:
 - a. Project name
 - b. Date
 - c. Name of Designer, Architect, or Engineer
 - d. Name of DESIGN-BUILDER's responsible party for the work
 - e. Page number
 4. DESIGN-BUILDER shall complete final cleaning per the project requirements.
 - a. Materials: Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
 - b. Use cleaning products that that comply with the California Code of Regulations maximum allowable VOC levels.
 - c. Final Cleaning
 - 1) General: DESIGN-BUILDER is required to provide general cleaning during construction and provide final cleaning as follows in this section conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations. Those include but are not limited to AQMD and SWRCB and other areas as required. Also refer PR-18 "Environmental".
 - 2) Cleaning: The DESIGN-BUILDER shall employ experienced Workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in a commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

- 3) The DESIGN-BUILDER shall complete the following cleaning operations before requesting inspection for certification of substantial completion for either the entire Project or a component of the Project.
- a) Removal of Protection: Remove temporary protection and facilities installed during construction to protect previously completed installations during the remainder of the construction period.
 - b) Clean project site, yard, and grounds, in areas disturbed by construction activities, including hardscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - c) Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - d) Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - e) Remove tools, construction equipment, machinery, and surplus material from project site.
 - f) Clean exposed exterior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - g) Remove debris and surface dirt from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - h) Sweep concrete floors broom clean.
 - i) Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - j) Remove labels that are not permanent.
 - k) Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - l) Remove paint over "UL" and similar labels, including mechanical and electrical nameplates. Replace label if damaged from cleaning.
 - m) Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - n) Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - o) Clean ducts, blowers, and coils.
 - p) Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
 - q) Leave project clean and ready for use.

4. SUBSTANTIAL COMPLETION INSPECTION

- A. Upon receipt of DESIGN-BUILDER's notice of substantial completion, LAWA will either proceed with the inspection or advise the DESIGN-BUILDER of unfulfilled requirements. The substantial completion inspection will only be performed for the Project or a component thereof.
- B. When the project is deemed ready for the substantial completion inspection, LAWA will inspect the completed work and generate a punch list of incomplete items and items requiring correction.
- C. If the LAWA inspection yields only minor items requiring completion or correction, LAWA will prepare a notification that the DESIGN-BUILDER has achieved substantial completion or will notify the DESIGN-BUILDER of items (punch list), identified by LAWA that must be completed or corrected before notice of substantial completion will be issued.
- D. Should additional re-inspections be required, LAWA will make one (1) repeat inspection for which the DESIGN-BUILDER shall reimburse LAWA for its time spent in conducting additional re-inspections at rate of 2.5 times rate of Direct Personnel Expense (DPE). DPE is defined as direct salaries of LAWA's personnel engaged on project and portion of costs of mandatory and customary contributions and benefits related thereto, including employment taxes and other statutory employee benefits, insurance, sick leave, holidays, vacations, pensions, and similar contributions and benefits.
- E. The DESIGN-BUILDER shall immediately begin correction and completion of the items contained on LAWA punch list and when completed. When completed, the DESIGN-BUILDER shall request that LAWA verify the completion of those items so as to not impact the construction schedule. This process shall be repeated until LAWA determines that the work is complete in accordance with the contract documents.
- F. If LAWA's verification either reveals that items have been completed or that only a limited number of items remain to be completed, LAWA may issue a certificate of substantial completion for the work. However, if LAWA's verification reveals that a substantial number of items remain to be completed or corrected the DESIGN-BUILDER will be directed to complete those items at no schedule or cost impact to LAWA and will be subject to liquidated damages until substantial completion is verified and approved.
- G. A certificate of substantial completion shall not be issued until LAWA receives evidence of satisfactory completion of commissioning requirements specified in the PR-26 "Commissioning and Training".
- H. The "Substantial Completion" flow chart shown below applies to partial work or components of work completed and available for beneficial use by LAWA or work of the entire project.



5. PARTIAL OCCUPANCY AND USE

- A. LAWA shall have the right to take early beneficial possession of and to use any completed or partially completed phase or portion of the work, even if substantial completion of the work has not occurred and even if the work has not been finally accepted. Such beneficial possession and early occupancy shall not constitute substantial completion of such portions of the work nor affect LAWA's right to assess liquidated damages as provided in the contract documents.
- B. If LAWA elects to take possession of and to use any completed or partially completed portions of the Work prior to substantial completion, an inspection shall be made by the DESIGN-BUILDER and LAWA. Based upon such inspection, LAWA will attempt to list all incomplete work items observed and shall provide the DESIGN-BUILDER with such list. However, the absence of an item from the list shall not relieve the DESIGN-BUILDER of responsibility to perform all of the Work. Any and all areas occupied will be subject to a final inspection when the DESIGN-BUILDER complies with the final inspection requirements.
- C. At the time of such inspection, the parties shall also negotiate the responsibilities of LAWA and the DESIGN-BUILDER for security, operations, maintenance, heating and cooling, utilities, property insurance premiums, and damage to the work. These negotiations are subject to the final approval of LAWA.
- D. In the event the DESIGN-BUILDER believes there will be an additional cost associated with completion of the Work while LAWA occupies the work in whole or in part under this section, the DESIGN-BUILDER shall advise LAWA by Contactor Potential Change Notice (CPCN) followed by a Contractor Change Request (CCR) of all such costs at or before the time of such inspection. If the DESIGN-BUILDER fails or refuses to furnish such cost information or fails or refuses to comply with the CCR procedure, the DESIGN-BUILDER shall be deemed to have waived any and all rights to assert any claim therefore at any time thereafter.

- E. If LAWA's need to occupy the work prior to such time as the work is complete is caused by the DESIGN-BUILDER's failure to complete the work within the stipulated period of performance, the DESIGN-BUILDER shall bear any and all additional costs associated with completing the work.

6. FINAL COMPLETION

- A. Upon issuance of a certificate of substantial completion for the entire project, the DESIGN-BUILDER shall complete any minor punch list items remaining after the issuance of the certificate of substantial completion at which time the DESIGN-BUILDER shall notify LAWA for final inspection of the work.
- B. The DESIGN-BUILDER will notify LAWA to perform complete facilities and project site final meter readings for utilities, a measured record of stored fuel and any other similar data required.
- C. The DESIGN-BUILDER shall submit all record documents associated with the project in accordance with the PR-24 "Photographs and Videos".
- D. DESIGN-BUILDER shall submit final maintenance and operations manuals, final project photographs, damage or settlement surveys (as required), property survey and similar final record information.
- E. The DESIGN-BUILDER shall submit specific approved warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
- F. The DESIGN-BUILDER shall submit releases required from any LAWA jurisdiction having authority or utility owner over unrestricted use of the work including access to services, utilities, operating permits, occupancy permits, etc. as may apply.
- G. The DESIGN-BUILDER shall submit as-built drawings, BIM model and specifications for LAWA review. (See PR-21 "BIM and Virtual Reality Coordination").
- H. The DESIGN-BUILDER shall submit final "Approved" submittals and shop drawings of record documents.
- I. The DESIGN-BUILDER shall deliver tools, spare parts, extra stock and similar items as required by the contract documents to LAWA.
- J. The DESIGN-BUILDER shall deliver miscellaneous equipment, cabinets, panels, keys, etc. to LAWA.
- K. The DESIGN-BUILDER shall request changeover of any remaining insurance coverage to LAWA as required for continuing coverage of the work for the project.
- L. The DESIGN-BUILDER shall deliver inventory of all items purchased by LAWA under the project.
- M. The DESIGN-BUILDER shall provide additional cleaning associated with the performance of punch list work, warranty work, demobilization and any other activity performed by the DESIGN-BUILDER after final cleaning.
- N. DESIGN-BUILDER discontinues and/or relocates temporary facilities (except any construction offices as agreed upon by LAWA) and final construction trailer meter readings.
- O. The DESIGN-BUILDER shall replace burned-out bulbs and LED modules, and those noticeably dimmed by hours of use, and defective and noisy starters in lighting fixtures to

comply with requirements for new fixtures.

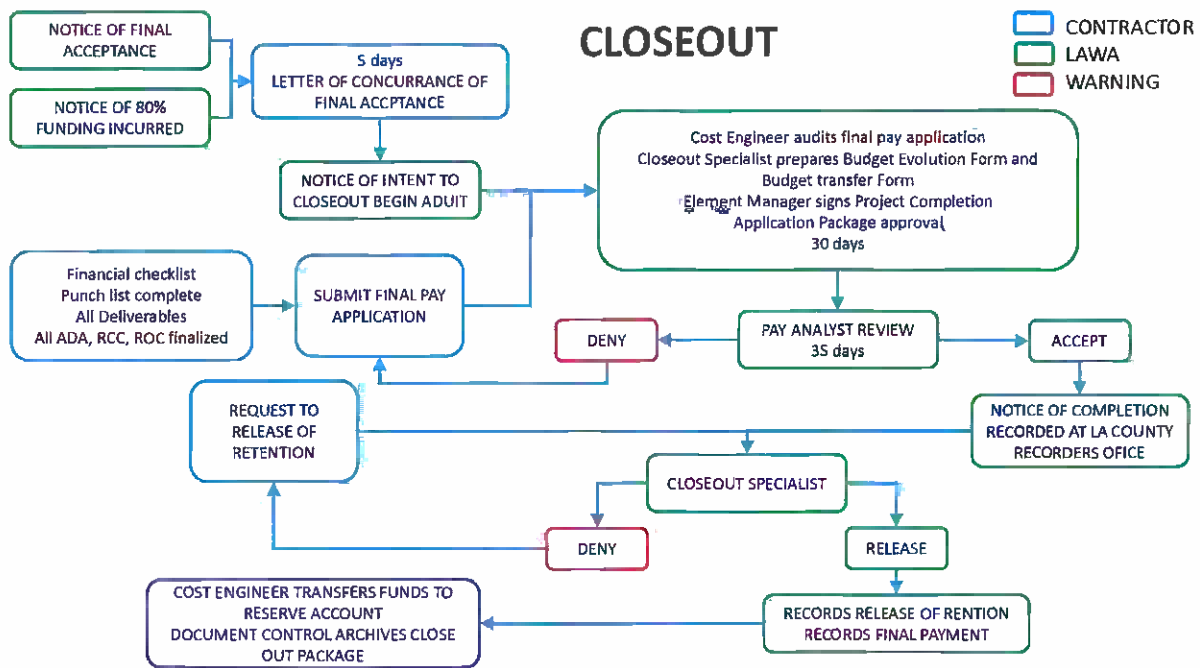
- P. The DESIGN-BUILDER shall replace parts subject to unusual operating conditions.
- Q. The DESIGN-BUILDER shall replace burned-out bulbs and LED modules, and those noticeably dimmed by hours of use, and defective and noisy starters in lighting fixtures to comply with requirements for new fixtures.
- R. The DESIGN-BUILDER shall replace parts subject to unusual operating conditions.
- S. The DESIGN-BUILDER shall comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on LAWA's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from project site and dispose of lawfully.
- T. The DESIGN-BUILDER shall confirm by snaking or piping camera that the new and existing underground sanitary and storm drain pipes are clean of construction debris under the building and on site until a connection of a significantly larger pipe.

7. FINAL ACCEPTANCE

- A. Upon notification from the DESIGN-BUILDER that final completion of component work or work for the entire project has been accomplished, LAWA shall complete a verification of each item contained on LAWA's punch list.
- B. Upon verification by LAWA of satisfactory completion of all outstanding punch list items, LAWA will issue a letter of final acceptance of component work or work for the entire project.
- C. LAWA will file the notice of final completion and acceptance of public works project with the County Recorder's Office when all work of the contract is complete.

8. RELEASE OF DESIGN-BUILDER RETENTION

- A. The DESIGN-BUILDER shall submit a final application for payment according to the contract's payment procedures.
- B. The DESIGN-BUILDER shall provide final release on contract.
- C. The DESIGN-BUILDER shall submit a certified copy of LAWA's substantial completion inspection list of items to be completed or corrected (punch list), endorsed and dated by LAWA. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
- D. The DESIGN-BUILDER shall submit evidence of final, continuing insurance coverage complying with insurance requirements.
- E. The DESIGN-BUILDER shall submit pest-control final inspection report and warranty.
- F. The DESIGN-BUILDER shall submit the application for retention release including consent of surety to release retention.
- G. The "CLOSEOUT" flow chart shown below applies to final acceptance of the entire project.



END PR-27 PROJECT CLOSEOUT

EXHIBIT G – R1:

Special Conditions

DESIGN BUILD SPECIAL CONDITIONS

TABLE OF CONTENTS

Section No.	Specification Title
SC-1	Changes to the General Conditions
	GC-2 Order of Precedence and Contract Interpretation
	GC-3 Contract Definitions
	GC-4 Abbreviations and Acronyms
	GC-9 Subcontracts
	GC-10 Design-Builders Representations, Services, and Responsibilities
	GC-36 Suspension of Work
	GC-43 Delays
	GC-46 Liquidated Damages
	GC-52 Payment Procedures
	GC-73 Insurance
SC-2	The Two-Phase Design-Build Contract
SC-3	Percentage of Work Performed by the Contractor
SC-4	Valid California Contractors Licenses
SC-5	Project Labor Agreement (PLA)
SC-6	Federal Requirements
SC-7	Risk Management
SC-8	Construction Moratoriums

END OF DESIGN BUILD SPECIAL CONDITIONS TABLE OF CONTENTS

CONTRACT SPECIAL CONDITIONS

SC- 1 CHANGES TO THE GENERAL CONDITIONS

MODIFY GC-2, ORDER OF PRECEDENCE AND CONTRACT INTERPRETATION

Revise Section A to read as follows:

A. Conflicts in the application or interpretation of any parts of the Contract Documents that cannot be resolved shall be interpreted in accordance with the following order of precedence (the first listed being the highest precedence):

1. Applicable Laws and Regulations
2. Permits
3. Executed Contract Amendments (including attached and incorporated Exhibits, except for those Exhibits listed below) and Executed Change Orders (To the extent of any conflict between Executed Contract Amendments and Executed Change Orders, Executed Change Orders shall have precedence and be controlling)
4. Executed Contract Agreement and attached and incorporated Exhibits, except for those Exhibits listed below
5. Special Conditions
6. General Conditions
7. Project Requirements
8. Technical Specifications
9. Project Plans/Drawings (detailed plans having greater precedence)
10. ATMP Landside Improvements Project Final Request For Proposal (RFP) including Electronic Data Room Volume 2 documents, and Addenda.

For clarification, executed changes to the above-listed components of the Contract Documents do not result in a re-ordering of the order of precedence. This is the case even when the above-listed components are attached or incorporated by reference to an Executed Contract Amendment. For example, if the Parties amend the Special Conditions as a part of an Executed Contract Amendment, the Special Conditions do not move up in the order of precedence to third because they are a part of an Executed Contract Amendment, rather the Special Conditions would remain fifth in the order of precedence.

MODIFY GC-3, CONTRACTING DEFINITIONS

In Section C, Definitions, remove the following:

COMPONENT GUARANTEED MAXIMUM PRICE - Any component of a GMP issued during the development of the GMP in the Progressive Design-Build or CMAR contract. All final cGMP's will be incorporated into the final GMP. (YC's definition)

GUARANTEED MAXIMUM PRICE - A guaranteed maximum price (also known as not-to-exceed price or NTE) contract is a cost-type contract (also known as an open-book contract) where the Design-Builder is compensated for actual costs incurred plus a fixed fee subject to a ceiling price. (YC's definition)

MODIFY GC-3, CONTRACTING DEFINITIONS

In Section C, Definitions, add the following:

AMENDMENT: means a written agreement, signed by LAWA and DESIGN-BUILDER, which documents changes to the Contract Documents, which may or may not have cost implications. Amendments must be executed by both parties to be incorporated as a Contract Document.

AREA SHUTDOWN REQUEST (ASR) – Coordination of LAX terminal, landside, and airside vehicle, pedestrian, and tenant impacts with LAWA and LAWA tenants.

ATMP TASKS - Work identified in PR-01 Scope of Work.

CONTRACT PRICING – The total amount of compensation stated in the Contract that is payable to the Design-Builder per the Contract Documents for the complete performance of the Work in accordance with the Contract Documents, which is based on Design-Builder's Proposal, Design-Build GMP and/or cGMP(s) as adjusted for: (1) Change Orders; and/or (2) Contract Amendments.

LAWA IMPACT REQUEST (LIR) – Coordination of Maintenance of Traffic with LAWA and Authorities Having Jurisdiction.

MAINTENANCE OF TRAFFIC – means the comprehensive effort to maintain traffic.

REFERENCE DOCUMENTS - Documents provided with and so designated in the RFP, which are provided for disclosure purposes only and without any warranty as to their accuracy, completeness or fitness for any particular purpose.

SUBCONTRACTS BUYOUT FUND (SBF) – Has the meaning set forth in GC-9.P.

UTILITY SHUTDOWN REQUEST (USR) – Coordination of LAX and VNY terminal, landside, and airside utility shutdowns and impacts with LAWA, LAWA tenants, and respective impacted Utility companies and/or jurisdictions.

WEEKLY WORK PLANS – Detailed work plan, segmented weekly that includes Design, Submittals, Procurement of Materials/Equipment, Construction and Commissioning of a Project.

MODIFY GC-3, CONTRACTING DEFINITIONS

In Section C, Definitions, add the following to the definition of Work:

Work includes, but is not limited to, the Pre-Construction Phase Services, Design Services, the GMP proposal, the Construction Phase Services, and any Additional Services and other services required. The term "reasonably inferable" takes into consideration the understanding of the parties that all design details will be resolved to the satisfaction of LAWA and not every detail will be shown on the Drawings and included in the Specifications.

MODIFY GC-4, ABBREVIATIONS AND ACRONYMS

Add the following:

- AHJ Authority(ies) Having Jurisdiction
- APM Automated People Mover
- ASR Area Shutdown Request
- ATMP Airfield and Terminal Modernization Project

- ARCC Airport Response Coordination Center
- CALM Coordination and Logistics Management Program
- CALTRANS California Department of Transportation
- CD 11 Council District 11
- ConRAC Consolidated Rent-A-Car Facility
- CTA Central Terminal Area
- ITF Intermodal Transportation Facility
- LABSS Los Angeles Bureau of Street Services
- LABSL Los Angeles Bureau of Street Lighting
- LABOS Los Angeles Bureau of Sanitation
- LABOE Los Angeles Bureau of Engineering
- LAMP Landside Access Modernization Program
- LIR LAWA Impact Request
- MOT Maintenance of Traffic
- RUE Roadways, Utilities, and Enabling Projects
- SBF Subcontractor Buyout Fund
- SUSMP/LID BMP Standard Urban Stormwater Mitigation Plan/Low Impact Development Best Management Practices
- TBIT Tom Bradley International Terminal
- USR Utility Shutdown Request

MODIFY GC- 6, NO ALTERATION OF CONTRACT TERMS

Design-Builder has no authority to alter, modify, amend, or change the terms of this Contract or any agreement entered into with LAWA or any agreement for any work to be performed on or relating to this Project, except by an executed Change Order or Contract Amendment executed in compliance with the Contract and subject to the limits on Change Orders expressed in the Contract.

MODIFY GC-9, SUBCONTRACTS

In Section F, modify the following:

REMOVE; “To the extent the Design-Builder chooses to utilize mandatory inclusivity levels, the inclusivity levels for each CGMP must meet the inclusivity levels of participation given by LAWA to the Design-Builder for this Contract, unless otherwise specified by LAWA.”

And

REPLACE; with, “Design-Builder shall utilize the DBE levels of participation established by LAWA on each CGMP, unless otherwise specified by LAWA.”

MODIFY GC-10, DESIGN-BUILDER’S REPRESENTATIONS, SERVICES AND RESPONSIBILITIES

In Section A.10.a, modify the following:

REMOVE; "a. The Design-Builder shall employ a competent Superintendent satisfactory to LAWA who shall be in attendance at the Project site at all times during the performance of the Construction Work. The Superintendent shall represent the Design-Builder and communications given to, and received from, the Superintendent shall be binding on Design-Builder. Failure to maintain a Superintendent on the Project site at all times Work is in progress shall be considered a material breach of this Contract, entitling LAWA to terminate the Contract or, alternatively, issue a stop work order until the Superintendent is on the Project site. If, by virtue of issuance of said stop work order, Design-Builder fails to complete the Contract on time, Design-Builder will be assessed Liquidated Damages in accordance with the Contract."

And

REPLACE; with, "a. The Design-Builder shall employ a competent Superintendent satisfactory to LAWA who shall be in attendance at the Project site at all times during the performance of the Construction Work. The Superintendent shall represent the Design-Builder and communications given to, and received from, the Superintendent shall be binding on Design-Builder. Failure to maintain a Superintendent on the Project Site at all times Work is being performed at the Project Site, including but not limited to, construction, inspection, commissioning, and closeout Work or whenever it is necessary to take measures to protect the Work, persons, or property shall be considered a material breach of this Contract."

MODIFY GC-36, SUSPENSION OF WORK;

REMOVE; "D. If the Design-Builder intends to assert a claim for compensation or time extension under this Article, it must, and notwithstanding any time limitations specified elsewhere in the Contract Documents, within seven (7) days after receipt of notice to resume work, submit to LAWA a Contractor's Change Request setting forth the schedule impact and monetary impact of the suspension in sufficient detail to permit thorough analysis. Adjustment of work Completion Time, if appropriate, will be made pursuant to the provisions of the Contract Documents. Adjustment of the not to exceed contract amount, if any, will be within the Board's sole discretion and shall not in any event, exceed the cost of the extra work resulting from such suspension. Such cost, if any, shall be determined in accordance with the Contract Documents. Pursuant to California Civil Code section 1511, the Parties agree that any failure to submit a timely and properly documented Contractor Change Request shall constitute a waiver by Design-Builder of any claim for additional compensation, time or impact costs from LAWA.."

And

REPLACE with; "D. If the Design-Builder intends to assert a claim for compensation or time extension under this Article, it must, and notwithstanding any time limitations specified elsewhere in the Contract Documents, within fourteen (14) days after receipt of notice to resume work, submit to LAWA a Contractor's Change Request setting forth the schedule impact and monetary impact of the suspension in sufficient detail to permit thorough analysis. Adjustment of work Completion Time, if appropriate, will be made pursuant to the provisions of the Contract Documents. Adjustment of the not to exceed contract amount, if any, will be within the Board's sole discretion and shall not in any event, exceed the cost of the extra work resulting from such suspension. Such cost, if any, shall be determined in accordance with the Contract Documents. Pursuant to California Civil Code section 1511, the Parties agree that any failure to submit a timely and properly documented Contractor Change Request shall constitute a waiver by Design-Builder of any claim for additional compensation, time or impact costs from LAWA."

MODIFY GC-43, DELAYS

REMOVE; "B. An excusable delay is a delay to the critical path of the project and meets all of the following requirements:

1. It was beyond the control of Design-Builder;
2. It could not have been foreseen or avoided by Design-Builder;
3. It could not have been mitigated by Design-Builder;
4. It was not caused in whole or in part by Design-Builder, its subcontractors of any tier or agents;
5. Design-Builder has provided written notices to LAWA of the delay act or event within seven (7) days of its occurrence and thereafter satisfies all requirements in the Contract Documents for making a request for extension to the Project Schedules and Contract milestones."

And

REPLACE with; "B. An excusable delay is a delay to the critical path of the project and meets all of the following requirements:

1. It was not a delay whose risk Design-Builder has expressly assumed;
2. It was beyond the control of Design-Builder;
3. It could not have been avoided by Design-Builder;
4. It could not have been mitigated by Design-Builder;
5. It was not caused in whole or in part by Design-Builder, its subcontractors of any tier or their agents;
6. Design-Builder has provided written notices to LAWA of the delay act or event within fourteen (14) days of its occurrence and thereafter satisfies all requirements in the Contract Documents for making a request for extension to the Project Schedules and Contract milestones."

MODIFY GC-46, LIQUIDATED DAMAGES

Add the following:

Failure of the Design-Builder to complete the Work within the time allowed will result in damages being sustained by LAWA. For each consecutive day in excess of the time specified for the completion of the Milestones of Work provided in the chart below, as adjusted in accordance with the General Conditions, Extensions of Time, the Design-Builder shall pay to LAWA, or have withheld from monies due to Design-Builder. The amount of Liquidated Damages shall be as per the table of Liquidated Damages below.

LAWA expressly denies that any progress payment made after the scheduled deliverable date or duration constitutes a waiver of Liquidated Damages. All Liquidated Damages shall be charged at the value indicated for the amount of time or any part thereof that the Work is late.

Airfield and Terminal Modernization Project (ATMP) Roadway Improvements		
Milestone	Description	Liquidated Damages Amount

Schedule Deliverable 1 60 Calendar Days After Phase 1 NTP and each Phase 2 CGMP NTP	Failure to submit Contract Compliant Phase 1 or Phase 2 Baseline Schedule to LAWA	\$5,000/day
Schedule Deliverable 1a	Failure to Resubmit Contract Compliant Phase 1 or Phase 2 Baseline Schedule to LAWA within 15 Calendar days after LAWA review and comment	\$5,000/day
Schedule Deliverable 2 1st of each month	Failure to submit Contract Compliant Monthly Schedule Updates to LAWA	\$5,000/day
CGMP1 – Planned NTP July 15, 2025		
Milestone	Description	Liquidated Damages Amount
Schedule Deliverable 3. 199 Calendar Days After NTP on First Amendment to Contract DA-5609	Complete Duct Bank for OH to UG Comms at Vicksburg Interface with Segments A and D	\$10,000/day
Schedule Deliverable 4. 287 Calendar Days After NTP on First Amendment to Contract DA-5609	Eastbound Century Widening Open to Traffic	\$25,000/day
Schedule Deliverable 5. 347 Calendar Days After NTP on First Amendment to Contract DA-5609	Segment J Open to Traffic in Temporary Configuration	\$25,000/day
Schedule Deliverable 6. 235 Calendar Days After NTP on First Amendment to Contract DA-5609	Complete AT&T Duck Bank Installation Along Sepulveda	\$10,000/day

Schedule Deliverable 7. 381 Calendar Days After NTP on First Amendment to Contract DA-5609	Shift WB Century to Arrivals onto Temporary X-Over	\$ 10,000/day
Schedule Deliverable 8. 779 Calendar Days After NTP on First Amendment to Contract DA-5609	Segment A - 2 Lanes and Segment C Open to Traffic in Temporary Configuration	\$0/day (First 30 Days), \$75,000/day (31-60 Days), \$150,000/day (Over 60 Days)
Schedule Deliverable 9. 932 Calendar Days After NTP on First Amendment to Contract DA-5609	Pre-Olympic Operational Areas/Segments Segment A – 3 Lanes, Segment I, Pedestrian Bridge at Sepulveda Blvd. (No- Elevators), 96 Street and Pedestrian Bridge at 96 Street	\$0/day (First 30 Days), \$75,000/day (31-60 Days), \$150,000/day (Over 60 Days)
Schedule Deliverable 10. 992 Calendar Days After NTP on First Amendment to Contract DA-5609	Pre-Olympic Operational Areas Pedestrian Bridge at Sepulveda Blvd. (With Elevators)	\$25,000/day

All Liquidated Damages are independent and will not be assessed in the cumulative, except for milestone Liquidated Damages 1, 1a, 3, 6, and 10, which can be cumulative to other Liquidated Damages withholdings.

LAWA and Design-Builder agree that the Design-Builder's ability to complete the Milestones specified in this Section relies, in part, on the following schedule assumptions: (a) Design-Builder securing separate approvals from LAWA and other AHJs for temporary traffic lane closures; (b) Design-Builder being granted partial relief from the construction moratorium requirements provided in Section SC-8(C)(3), and (c) completion of utility work by utility companies by certain time frames to be agreed upon by LAWA and Design-Builder. The Design-Builder agrees to work collaboratively with LAWA and AHJs to secure the required approvals and with LAWA and utility companies to complete utility work, which Design-Builder's efforts may include, but not be limited to, making adjustments to its construction approach, construction schedule, maintenance of traffic design and implementation, and other measures to timely complete the Milestones in this Section. The Design-Builder shall make every reasonable effort to achieve the Milestones specified in this Section in a timely manner. In the event that one or more of the schedule assumptions (a) – (c) are not met and cannot be mitigated through alternative schedule modifications, LAWA will grant schedule relief. The Design-Builder must demonstrate any schedule impacts through methods such as a Time Impact Analysis, subject to LAWA's review and approval. Design-Builder has a contractual duty to work with LAWA to take reasonable remedial action, in the most economical manner, to mitigate any and all other delays to the Milestones, so as to timely achieve the Milestones.

For Unauthorized Lane Closures the following shall apply:

Unauthorized Lane Closures Liquidated Damages	
	Liquidated Damages Amount by Closure Duration

Description of Closure by Location	First 1/2 hour	Second 1/2 hour	Second hour and beyond
	per 10 minutes	per 10 minutes	per 10 minutes
Century Blvd Each Direction			
One Lane	\$500.00	\$1,000.00	\$2,000.00
Two Lanes	\$1,000.00	\$1,500.00	\$3,000.00
Full Closure	\$3,000.00	\$4,000.00	\$6,000.00
Sepulveda Blvd Each Direction			
One Lane	\$500.00	\$1,000.00	\$2,000.00
Two Lanes	\$1,000.00	\$1,500.00	\$3,000.00
Full Closure	\$3,000.00	\$4,000.00	\$6,000.00
Other Streets Each Direction			
One Lane	\$100.00	\$250.00	\$500.00
Two Lanes	\$200.00	\$500.00	\$1,000.00
Full Closure	\$400.00	\$1,000.00	\$2,000.00
<p>For each 10-minute interval or fraction thereof past the time specified in the approved LIR/ASR, the amount for Liquidated Damages per interval shown in the table above is deducted. Liquidated Damages are limited to 5 percent of the total bid per occurrence. Liquidated Damages are not assessed if the Engineer orders the closure to remain in place beyond the scheduled pickup time.</p>			

MODIFY GC-52, PAYMENT PROCEDURES

Replace Section I with the following:

I. Allowances

The Design/Builder will be paid for Allowance items on either a cost reimbursable, lump sum, or unit price basis. The Design/Builder's costs for the GMP shall include all overhead, bonds, and insurance and shall be paid out as the work is completed. The Design/Builder shall include all supervision and coordination of subcontractors' work in the pricing of allowance work, however no additional compensation for overhead, bonds, or insurance will be allowed in the pricing of Allowances. Work designated to be paid for out of an Allowance shall not be considered a change for the purposes of granting Work Completion Time extensions unless such allowance work delays the Critical Path of the Project beyond the ability of the Design/Builder to take reasonable remedial action to mitigate any such delay(s) to the Critical Path of the Project. Any and all unused portions of the stipulated Allowances amounts and associated mark-ups for overhead, bonds, and insurance will not be paid to the Design/Builder and shall be deducted from the GMP value at the completion of the Project via a deductive GMP

revision/change order. The Design/Builder shall not be entitled to any form of compensation whatsoever for unauthorized and/or unused Allowances.

Replace Section J. 2 with the following:

All contingency fund charges must have LAWA's advance written approval before being transferred to a line item in the Schedule of Values. All remaining funds in the Design-Builder's Contingency upon project completion shall remain with LAWA, including any associated fees and/or mark-ups for bonds, insurance, overhead, profit, etc. The Design-Builder shall not be entitled to any form of compensations whatsoever for unauthorized and/or unused contingency. In the event of the Design-Builder contingency fund is exhausted, at which point costs that exceed the (C)GMP/GMP that do not constitute a change order, Design-Builder will be responsible for the exceeded cost.

MODIFY GC-73, INSURANCE

In Section D,

REMOVE; "D. Subcontractors. Design-Builder shall include all of its subcontractors as insured's under its policies or shall furnish separate certificates and endorsements for each subcontractor (excluding professional services). All coverage's for subcontractors shall be subject to all of the requirements stated herein unless otherwise agreed to in writing by Executive Director and approved as to form by the Office of the City Attorney.

REPLACE; with, D. Subcontractors. Design-Builder shall include all of its subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor (excluding professional services, automobile liability, and those subcontractors traditionally excluded by Contractor Controlled Insurance Program (CCIP)). All applicable coverages for subcontractors shall be subject to all of the requirements stated herein unless otherwise agreed to in writing by Executive Director and approved as to form by the Office of the City Attorney.

MODIFY GC-73, INSURANCE

Add Section O,

Design-Builder will provide Contractor Controlled Insurance Program ("CCIP") for Phase 2 Construction to include General Liability, Workers Compensation, and Excess Liability.

SC- 2 THE TWO-PHASE DESIGN-BUILD CONTRACT

The Design-Builder will perform design/pre-construction and construction services for this Project under Two-Phase Design-Build delivery method. The Two Phases consist of:

- A. Phase 1 – The Design/Pre-Construction Phase: Which will commence shortly after the award by the BOAC upon issuance of a Phase 1 – Notice To Proceed (NTP) by LAWA, and
- B. Phase 2 – Work to be Performed after GMP/CGMP: The issuance Notices To Proceed for Phase 2 is constrained by the requirement to establish a Guaranteed Maximum Price (GMP) or one or more Component Guaranteed Maximum Prices (CGMPs) for the Project by the specified Milestone dates or durations or unless otherwise directed by LAWA. Phase 2 will commence only upon the issuance of a Phase 2 – NTP by LAWA.

LAWA reserves the right not to award any portion of the Phase 2 Work to the Design-Builder and pursue other procurement alternatives. If LAWA pursues such a course of action and terminates the Contract, the Design-Builder shall execute an assignment to LAWA of all Design-Builder's contracts with Design Professionals for any remaining Design Work to be performed on Phases 1 and 2.

Under no circumstances will the authorization of Early Work Packages by LAWA constitute a waiver of its right to not award a Phase 2 GMP/CGMP portion of the Work to the Design-Builder.

Notwithstanding, should LAWA and the Design-Builder not successfully establish a Phase 2 GMP or CGMP(s), then the contracted General Conditions and Project Requirements as they relate to Substantial Completion, Final Completion, Project Closeout, Commissioning and Operational Readiness shall apply to completion and close out of any Early Work Package Work. Costs associated to demobilization and closeout will be resolved and settled as described in the Contract Agreement.

SC- 3 PERCENTAGE OF WORK PERFORMED BY THE CONTRACTOR

- A. The Design-Builder shall perform Contract Work amounting to a minimum of thirty percent (30%) of the Total Contract Value. General Conditions, Field Services, bond, supervision, profit, and similar items will not be included in calculating the Design-Builder's percentage of work performed. Construction Work Packages not self-performed by the Design-Builder shall be procured based upon competitive bids as required by the Contract's General Conditions on Subcontracts. The Design-Builder is responsible for meeting or exceeding the Inclusivity requirements detailed in the RFP and the contract documents.
- B. The Design-Builder may negotiate the cost of self-perform packages with LAWA directly, or may choose to be a bidder on any Work Packages in competition with the potential subcontractors who are bidding. In order to ensure fairness in such competition, LAWA will administer that procurement for the Design-Builder. Any competition the Design-Builder wins will count against the overall self-perform percentage.
- C. The subcontracting of any portion of the Work shall not relieve the Design-Builder of its responsibilities under the Contract. Where it is necessary for the Design-Builder to self-perform Work due to a failure of the subcontractor to perform its work, Design-Builder must perform the work remaining for the value remaining in that subcontract. Said work will not be counted in calculating the Design-Builder's percentage of work performed, provided that LAWA has agreed to the necessity of the Work take-over.

SC- 4 VALID CALIFORNIA CONTRACTORS LICENSES

- A. The Contractor shall possess valid California Class A Contractors License in good standing with the California State Contractors Licensing Board at the time of the Bid and shall remain valid through Final Acceptance of the Work by LAWA.
- B. Each subcontractor selected for the Work shall possess valid California Licenses in good standing with the California State Contractors Licensing Board, appropriate for the portion of the Work that will be accomplished by each subcontractor.
- C. Contractors are required by law (Business and Professions Code §7030 and §7030.5) to be licensed and regulated by DESIGN-BUILDER's State License Board which has jurisdiction to

investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within 10 years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, CA 95826.

SC- 5 PROJECT LABOR AGREEMENT

All work under this contract is subject to the Los Angeles Department of Airports Construction Project Labor Agreement (PLA), as may be amended from time to time. The current version of the PLA is made up of Attachment 1 Letter of Understanding dated January 16, 2025 as well as the documents located at LAWA Official Site | Project Labor Agreement. The Contractor shall comply with the terms of the PLA, however, the PLA shall not be construed as superseding California Labor Code Requirements nor any applicable Federal, State and Local laws. The Contractor shall comply with the terms of the PLA, however, the PLA shall not be construed as superseding California Labor Code Requirements nor any applicable Federal, State and Local laws.

SC-6 FEDERAL REQUIREMENTS

This Contract is eligible for Federal funds and the Contract's Federal Requirements are attached hereto and made part of the Contract Documents by this reference.

SC-7 RISK MANAGEMENT

Risk Management Plan (RMP) shall be developed as a separate section of the Project Management Plan. RMP, together with referenced exhibits and attachments, shall fully and systematically define the processes by which risks are identified, allocated, and analyzed; and the mitigation strategies developed and tracked. The RMP shall identify the persons responsible for managing various areas of risk, defines the risk management process, and describes the tools used to track the identified risks systematically. The Risk Management methodology shall be developed based on ISO 31000:2018.

The component objectives of the RMP shall include the following:

- A. Implement a) a clear and efficient risk management process that facilitates the unbiased identification of possible risks early in the Project, b) strategies to eliminate, avoid, or mitigate those risks, and c) proactive tracking protocols to capture risk actions through to ultimate retirement.
- B. Develop a comprehensive risk register to a) capture potential risk events, b) apportion probabilities of occurrence and likely range of impact in terms of both time and money, c) assign staff responsible for each risk, and d) maintain updates to provide measurement of the performance of the risk strategies implemented to address/mitigate the risks.
- C. Provide a reasonable probabilistic Project cost estimate and schedule that incorporates the impacts of major risks items identified on each Project, and updated appropriately as risk windows transpire and are retired.
- D. Provide a guide to Project stakeholders and team members in making informed decisions regarding effective actions to minimize risk impacts to the Project.

To facilitate the monitoring and updating of the possible Project risks, the Project's risk register shall be routinely reviewed and updated through the duration of the contract. Risk reporting shall be performed at the same frequency, and in similar detail to the reporting of other Project

data necessary for the effective management of the Project. Reporting can focus on the strategy for mitigation of the risk item, the resolution — if applicable, the date of resolution, the due date to resolve or mitigate the risk, the primary and secondary contact, and the responsible party are also all identified by each risk item.

SC-8 CONSTRUCTION MORATORIUMS

A. Background. LAX is one of the busiest airports in the world and is presently developing numerous projects that are intended to enhance its airport facilities and operations for the 2026 FIFA World Cup ("World Cup") and 2028 Summer Olympics and Paralympics ("Summer Olympics") in Los Angeles. As such, the operating environment at LAX includes many factors that affect construction of Projects, including without limitation, nearly continuous air and vehicle traffic from departures and arrivals, related vehicular congestion, new and ongoing construction projects, ongoing maintenance and repair, and security commensurate with the foregoing, among other things. Design-Builder is presumed to know these and all other potential impacts from airport operations on the construction of the Project.

B. Construction Moratoriums. In addition, all Contractors, Design-Builders, Subcontractors, and others under contract with LAWA to construct projects, regardless of the form of contract, shall schedule, comply with, and enforce all moratorium for the cessation of construction Work ("Construction Moratorium"). Except as more specifically provided for the 2028 Summer Olympics Moratorium Dates, the Construction Moratorium prohibits on-site Work of construction that either requires or may cause (a) temporary lane closures or queuing on streets (day or night); (b) utility interruptions; or (c) construction water on streets, directly or through Subcontractors. The Construction Moratorium does not preclude design, procurement, scheduling, or other non-construction activities.

C. Moratorium Dates. The currently known Construction Moratorium periods are the (1) LAWA Holiday Construction Moratoriums, (2) City of Los Angeles (COLA) Holiday Street Construction Moratorium, (3) World Cup Moratorium, and (4) Summer Olympics Moratorium. LAWA will make publicly available the Construction Moratorium dates and provide notice to Design-Builder annually of any changes to the Construction Moratorium dates. While LAWA will provide notice, it is Design-Builder's duty and responsibility to inquire about Construction Moratorium dates, and Design-Builder shall bear the risk of increased costs and delay if it fails to do so.

1. LAWA Holiday Construction Moratoriums

- Thursday before Thanksgiving through the Tuesday after Thanksgiving
- December 18th through January 2nd

2. City of Los Angeles (COLA) Holiday Street Construction Moratoriums

- Tuesday before Thanksgiving through the Monday after Thanksgiving
- All Weekends (Friday through Sunday) in December.
- December 15th through December 26th

3. 2026 World Cup Moratorium

LAWA shall provide the specific Moratorium Dates pursuant to Subsection F below. Design-Builder shall anticipate that the Moratorium dates will begin two weeks prior to the first scheduled World Cup game in Los Angeles and extend one week after the last World Cup Game in Los

Angeles. The Moratorium may begin earlier and end later than above due to preparation, arrivals and departures.

4. 2028 Summer Olympics Moratorium Dates

LAWA shall provide the specific Moratorium Dates pursuant to Subsection F below and Design Builder shall avoid any construction activities that may impact Olympic routes or services for the period of the Olympic Games and Paralympic Games. Design-Builder shall anticipate that the Moratorium dates for the 2028 Olympic and Paralympic Games will begin on July 1, 2028 and extend to September 3, 2028 (one week after the Closing Ceremony of the Paralympic Games). The Moratorium may begin earlier and end later than above due to preparation, arrivals and departures.

D. No LAWA Liability. All Contractors, Design-Builders, Subcontractors, and others under contract with LAWA to design and/or construct projects, shall plan, schedule, comply with, and enforce the Construction Moratorium and, specifically, shall schedule their Work, Subcontractors, and labor in accordance with the Construction Moratorium. Given the advance notice provided herein and except as provided below, Design-Builder shall have no basis for a claim of superior knowledge, owner impacts, or otherwise for delays, disruptions, or damages for impacts arising from, or related to, the Construction Moratoriums, and delays resulting from and related to the Construction Moratorium shall be considered non-excusable. LAWA shall not be liable for increased costs, delays, disruptions, loss of efficiency, loss of productivity, hindrances, individual impacts, cumulative impacts, ripple effects, or any other form of damages of any nature should Contractors, Design-Builders, Subcontractors, or others under contract with LAWA fail or omit to plan, schedule, comply with, and enforce the Construction Moratorium for the cessation of construction Work. LAWA also shall be entitled to recover all costs it may incur to enforce the Construction Moratorium for the cessation of construction Work which, if violated, also shall be grounds for termination for default.

E. Updates. The respective World Cup and Summer Olympics Construction Moratorium duration dates may be reduced, expanded, or otherwise changed in order to accommodate preparation, arrival travel and wrap-up and departure travel demands. In the event of a change, the World Cup and Summer Olympics Construction Moratoriums will be updated with no less than ninety (90) day written notice without any change to the provisions of this Special Condition.

F. Deviations. Any request for a deviation from any of the Construction Moratoriums shall be made in writing and made to LAWA at least sixty (60) days prior to the start date of any of the moratoriums. Design-Builder shall in its request provide a detailed explanation of the reason that Work cannot be performed before or after the Construction Moratorium at issue, the Worksites Design-Builder plans to use, and a plan that demonstrates how the Design-Builder would reduce and mitigate construction impacts during the Construction Moratorium. LAWA may request additional information to consider the deviation, which Design-Builder shall timely supply. LAWA may grant or deny a deviation from the Construction Moratorium in writing, in its sole and absolute discretion. LAWA may condition any requested deviation that it grants on limitations as to the specific Work that may be performed, the locations at which it is performed, the conditions under which it is performed, and the dates and times that it may be carried out.

G. Applicability. If this Special Condition is added as a change to the Contract, the Design-Builder shall request a change and include all the information required by the Contract Documents to establish its entitlement to extra compensation and/or additional time for performance of the Work, including Work by Subcontractors. If Design-Builder fails to request a change in the time and manner required by the Contract, the Design-Builder shall be deemed to have waived any

right to extra compensation, additional time, or other relief, and to have failed to exhaust its administrative remedies under the Contract.

Attachment 1

LOS ANGELES INTERNATIONAL AIRPORT
CONSTRUCTION PROJECT LABOR AGREEMENT
LETTER OF UNDERSTANDING

To All Contractors and Signatory Unions:


Regarding the Expansion of Zip Codes that Define Local Residents:

In order to expand inclusivity and the geographic recruitment reach for the HireLAX Apprenticeship Program, and to ensure the economic benefits of the Project Labor Agreement continue to increase the number of skilled local construction workers and have a positive impact on the economically disadvantaged communities in proximity to LAX, the Parties understanding of the definition of Local Resident is the following:

The definition of Local Resident in Article III, Section 6, which was amended as part of the ten-year extension of the Project Labor Agreement in 2020, is expanded to include zip codes 90220, 90221, 90222, 90745, 90746, 90747, 90249, 90260. As a result, the Craft Employee Request Form (revised PLA Addendum 8) has been updated with these zip codes. This new definition of Local Resident and the updated Craft Employee Request Form is effective for PLA-covered projects with a bid advertisement date or request for proposals posting date of July 30, 2024, or after.

Updated List of Grievance Arbitrators:

In order to have a viable list of arbitrators under the PLA's Article VII grievance procedure, the Parties will use the following arbitrator list: Thomas Pagan, Najeeb Khoury, Andrea Dooley, Edna Francis, David Weinberg, Fred Horowitz, and Sara Adler. The list of arbitrators will be used for all PLA-covered projects and supersedes any prior Article VII arbitrator lists.



Daniel Sloan
President
Parsons Constructors Inc.
LAWA Agreement Coordinator

Date

4/16/25



Ernesto Medrano
Executive Secretary
Los Angeles and Orange Counties Building
and Construction Trades Council

Date

4/16/2025

END OF SPECIAL CONDITIONS

EXHIBIT I:

cGMP Work Package 1

March 25, 2025

Los Angeles World Airports
7303 World Way West
2nd Floor
Los Angeles, CA 90045

Attn: Jean Yuan, PE
Airport Engineer

Subject: cGMP 1 Proposal
Tab 1

Dear Ms. Yuan:

Pursuant to approximately twenty-one (21) months of project development, Skanska-Flatiron A Joint Venture (SFJV) is pleased to submit the ATMP Roadway Improvements Project's first Component Guaranteed Maximum Price (cGMP) proposal. SFJV's cGMP1 proposal represents the culmination of the collaborative goals our teams established in June 2024 for an early works scope based on concept development, engineering, scheduling, procurement and packaging, and inclusivity.

We look forward to the opportunity to review the cGMP1 cost proposal, scope of work, schedule, and inclusivity plan with LAWA, and the continued successful development of the project.

If you require any additional information, please contact the undersigned at (951)295-9650 or via email to mike.spain@skanska.com.

Respectfully,
Skanska-Flatiron, A Joint Venture



Mike Spain
Vice-President of Operations
Project Manager
(951)295-9650

Table of Contents

<u>COVER LETTER.....</u>	<u>TAB 1</u>
<u>TABLE OF CONTENTS</u>	<u>TAB 2</u>
<u>SCOPE OF WORK.....</u>	<u>TAB 3</u>
<u>GUARANTEED MAXIMUM PRICE</u>	<u>TAB 4</u>
<u>WORK PLAN & SCHEDULE</u>	<u>TAB 5</u>
<u>CLARIFICATIONS AND ASSUMPTIONS</u>	<u>TAB 6</u>
<u>PROCUREMENT & PACKAGING PLAN</u>	<u>TAB 7</u>
<u>INCLUSIVITY PLAN</u>	<u>TAB 8</u>
<u>PERMITTING PLAN</u>	<u>TAB 9</u>
<u>CGMP MANAGEMENT PLAN</u>	<u>TAB 10</u>



ATMP ROADWAYS IMPROVEMENTS PROJECT cGMP1

Tab 3 Scope of Work

March 25, 2025

Prepared by:
Skanska-Flatiron A Joint Venture

SKANSKA | FLATIRON

1.0 NARRATIVE AND SCOPE COMPONENTS

The cGMP1 proposal consists of scope components to facilitate bridge construction, as well as bridge substructure components. The following components generally comprise the cGMP1 scope:

- Demolition/Removals of existing features required to construct the work in AC-01 and AC-02, including existing pylons, LAX gateway letters, and 9/11 Memorial.
- Demolition/removal of existing buildings at the LACC and Wally Park properties
- Reinforced Concrete Box Culvert Line A including headwalls and junction structures.
- Various temporary and permanent storm drain piping, manholes, transition structures, and catch basins/inlets.
- Temporary and permanent asphalt pavement and associated grading, including striping and signing.
- Modification of signage and/or traffic signals at the following intersections:
 - Sepulveda Blvd. and Century Blvd.
 - Century Blvd. and Vicksburg Ave.
 - Century Blvd. and Jetway Blvd.
- Temporary ATSAC cable relocation at 96th St at:
 - Sepulveda Blvd. and 96th St.
 - Century Blvd. between Sepulveda Blvd. and Vicksburg Ave.
- Maintenance of Traffic including work zone establishment and temporary roadway lighting
- Utility relocations and removals including:
 - Removal of existing LADOT conduit and cabling
 - Removal of existing LADWP-Electrical conduits
 - Installation of new underground ductbank systems for AT&T, Spectrum, Crown Castle
 - Removal of existing LAWA electrical facilities
 - LADWP-Water relocations and removals
 - LAWA waterline relocations to facilitate new Line A box culvert

- Retaining Walls:

Wall Identification	Design Unit	
A-1	DU02A	60%
A-2A	DU02A	60%
A-2B	DU02A	60%
C-1	DU01	60%
C-2	DU01	60%
D-3	DU02A	60%
D-4	DU02A	60%
D-5	DU02	Progress Print 20240920
D-6	DU02	Progress Print 20240920
E-2	DU01	60%
F-1	DU02A	60%
F-2	DU02A	60%
G-1	DU01	60%
G-2	DU01	60%
J-2	AC01	90%

- Bridge Abutments:

Abutment ID Identification	Design Unit	
Bridge A Abutment 1	DU02A	60%
Bridge A Abutment 9F	DU02A	60%
Bridge A Abutment 10C	DU02A	60%
Bridge D1 Abutment 7	DU02A	60%
Bridge D2 Abutment 1	SD	30%
Bridge G Abutment 1	DU01	60%

- Large Diameter CIDH Piles and Columns:

Design Unit	Bridge	Description
DU02A 60%	A	Bridge A Bent 2
		Bridge A Bent 3
		Bridge A Bent 4
		Bridge A Bent 5
		Bridge A Bent 6
		Bridge A Bent 7
		Bridge A Bent 8
		Bridge A Bent 9
		Bridge A Bent 10 (Straddle Bent)
		Bridge A Bent 11

DU02A 60% (cont.)	A (cont.)	Bridge A Bent 12
		Bridge A Bent 13
		Bridge A Bent 14
		Bridge A Bent 15
		Bridge A Bent 16
		Bridge A Bent 17
		Bridge A Bent 18
		Bridge A Bent 19
		Bridge A Bent 20
		Bridge A Bent 21
		Bridge A Bent 22
		Bridge A Bent 23
		Bridge A Bent 24
		Bridge A Bent 25
DU02A 60%	D1	Bridge D1 Bent 2
		Bridge D1 Bent 3
		Bridge D1 Bent 4
		Bridge D1 Bent 5
		Bridge D1 Bent 6
SD 30%	D2	Bridge D2 Bent 2
		Bridge D2 Bent 3
		Bridge D2 Bent 4
		Bridge D2 Bent 5
		Bridge D2 Bent 6
		Bridge D2 Bent 7
		Bridge D2 Bent 8
		Bridge D2 Bent 9
		Bridge D2 Bent 10
SD 30%	K1	Bridge K1 Bent 12
		Bridge K1 Bent 13
		Bridge K1 Bent 14
DU01 60%	G	Bridge G Bent 2
		Bridge G Bent 3
		Bridge G Bent 4
DU04 60%	I	Bridge I Bent 2
		Bridge I Bent 3
DU04 60%	K	Bridge K Bent 2
		Bridge K Bent 3
DU04 60%	L	Bridge L Bent 6
		Bridge L Bent 7
		Bridge L Bent 8
		Bridge L Bent 9
		Bridge L Bent 72 WA
		Bridge L Bent 72 W
		Bridge L Bent 73 W
		Bridge L Bent 74 W
		Bridge L Bent 75 W

DU04 60%	M	Bridge M Bent 1
		Bridge M Bent 2
DU04 60%	P	Bridge P Bent 2
		Bridge P Bent 3
PB01 60%	Sepulveda Pedestrian Bridge	Sepulveda POC Bent AE
		Sepulveda POC Bent BE
		Sepulveda POC Bent CE
		Sepulveda POC Bent AW
		Sepulveda POC Bent BW
		Sepulveda POC Bent CW
PB01 60%	96 th St Pedestrian Bridge	96 POC Bent 1
		96 POC Bent 2
		96 POC Bent 3
		96 POC Bent 4
		96 POC Bent 5
		96 POC Bent 6
		96 POC Bent 7
		96 POC Bent 8
		96 POC Bent 9

- Reinforcing steel for large diameter CIDH piles, bridge abutments including small diameter CIDH piles, and columns.
- Potholing of large diameter CIDH piles

Refer to the drawing table in Section 3 for utility relocations being performed by 3rd parties.

2.0 PERFORMANCE REQUIREMENTS

As indicated in Contract DA-5609 dated April 26, 2023 and as modified by:

- Tab 6 Clarifications & Assumptions dated March 25, 2025.
- cGMP1 General Requirements Basis Of Negotiations Rev. 3 dated March 25, 2025.

3.0 DRAWINGS

The following drawings are included in cGMP1 proposal. AHJ standard drawings included in drawing packages are not listed:

AC01 INDEX TO SHEETS				
SHT. NO.	SHT DESC.	SHEET TITLE	SUBMITTAL BASIS	REFERENCE DATE
GENERAL				
1	AC01-GI0-001	TITLE SHEET	90% SUBMITTAL	12/4/2024
2	AC01-GI0-002	INDEX TO SHEETS	90% SUBMITTAL	12/4/2024
3	AC01-GI0-003	CONSTRUCTION NOTES	90% SUBMITTAL	12/4/2024
4	AC01-GI0-004	CONSTRUCTION NOTES	90% SUBMITTAL	12/4/2024

5	AC01-GI0-005	GENERAL NOTES	90% SUBMITTAL	12/4/2024
6	AC01-GI0-008	ABBREVIATIONS AND SYMBOLS	90% SUBMITTAL	12/4/2024
7	AC01-GI0-009	ABBREVIATIONS AND SYMBOLS	90% SUBMITTAL	12/4/2024
8	AC01-GI0-010	ABBREVIATIONS AND SYMBOLS	90% SUBMITTAL	12/4/2024
9	AC01-GI0-011	ABBREVIATIONS AND SYMBOLS	90% SUBMITTAL	12/4/2024
10	AC01-VB1-002	CONTROL LINE PLAN	90% SUBMITTAL	12/4/2024
11	AC01-VB1-001	PROPOSED ALIGNMENT PLAN	90% SUBMITTAL	12/4/2024
DEMOLITION				
12	AC01-CD1-000	DEMOLITION KEY MAP	90% SUBMITTAL	12/4/2024
13	AC01-CD1-006	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
14	AC01-CD1-007	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
15	AC01-CD1-010	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
16	AC01-CD1-011	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
17	AC01-CD1-012	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
18	AC01-CD1-017	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
19	AC01-CD1-018	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
20	AC01-CD1-019	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
21	AC01-CD1-020	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
22	AC01-CD1-021	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
23	AC01-CD1-022	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
24	AC01-CD1-024	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
25	AC01-CD1-025	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
26	AC01-CD1-030	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
27	AC01-CD1-031	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
28	AC01-CD1-032	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
29	AC01-CD1-034	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
30	AC01-CD1-039	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
31	AC01-CD1-046	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
32	AC01-CD1-047	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
33	AC01-CD1-052	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
34	AC01-CD1-053	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
35	AC01-CD1-055	DEMOLITION PLAN	90% SUBMITTAL	12/4/2024
ROADWAY				
36	AC01-CP1-000	ROADWAY KEYMAP	90% SUBMITTAL	12/4/2024
37	AC01-CP1-010	ROADWAY PLAN	90% SUBMITTAL	12/4/2024
38	AC01-CP1-011	ROADWAY PLAN	90% SUBMITTAL	12/4/2024
39	AC01-CP1-018	ROADWAY PLAN	90% SUBMITTAL	12/4/2024
40	AC01-CP1-019	ROADWAY PLAN	90% SUBMITTAL	12/4/2024
41	AC01-CP1-020	ROADWAY PLAN	90% SUBMITTAL	12/4/2024
42	AC01-CP1-021	ROADWAY PLAN	90% SUBMITTAL	12/4/2024
43	AC01-CP1-022	ROADWAY PLAN	90% SUBMITTAL	12/4/2024
44	AC01-CP1-024	ROADWAY PLAN	90% SUBMITTAL	12/4/2024
45	AC01-CP1-025	ROADWAY PLAN	90% SUBMITTAL	12/4/2024
46	AC01-CP1-031	ROADWAY PLAN	90% SUBMITTAL	12/4/2024
47	AC01-CP1-032	ROADWAY PLAN	90% SUBMITTAL	12/4/2024
48	AC01-CP1-034	ROADWAY PLAN	90% SUBMITTAL	12/4/2024
49	AC01-CP2-001	ROADWAY PROFILE TEMP1	90% SUBMITTAL	12/4/2024
50	AC01-CP2-002	ROADWAY PROFILE TEMP3	90% SUBMITTAL	12/4/2024
51	AC01-CP2-003	ROADWAY PROFILE TEMP3	90% SUBMITTAL	12/4/2024
52	AC01-CP2-004	ROADWAY PROFILE TEMP6	90% SUBMITTAL	12/4/2024

53	AC01-CP3-001	TYPICAL SECTIONS	90% SUBMITTAL	12/4/2024
54	AC01-CP5-901	CONCRETE SLOPED BARRIER END SECTION DETAIL	90% SUBMITTAL	12/4/2024
55	AC01-CP5-902	TRANSITION CONCRETE BARRIER (TYPE 842) TO CONCRETE BARRIER (TYP 80MC)	90% SUBMITTAL	12/4/2024
56	AC01-CP5-903	CALTRANS 2023 STANDARD PLAN A76A	90% SUBMITTAL	12/4/2024
57	AC01-CP5-906	CALTRANS 2023 STANDARD PLAN A87B	90% SUBMITTAL	12/4/2024
GRADING				
58	AC01-CG1-000	GRADING KEYMAP	90% SUBMITTAL	12/4/2024
59	AC01-CG1-010	GRADING PLAN	90% SUBMITTAL	12/4/2024
60	AC01-CG1-011	GRADING PLAN	90% SUBMITTAL	12/4/2024
61	AC01-CG1-018	GRADING PLAN	90% SUBMITTAL	12/4/2024
62	AC01-CG1-019	GRADING PLAN	90% SUBMITTAL	12/4/2024
63	AC01-CG1-020	GRADING PLAN	90% SUBMITTAL	12/4/2024
64	AC01-CG1-021	GRADING PLAN	90% SUBMITTAL	12/4/2024
65	AC01-CG1-022	GRADING PLAN	90% SUBMITTAL	12/4/2024
66	AC01-CG1-024	GRADING PLAN	90% SUBMITTAL	12/4/2024
67	AC01-CG1-025	GRADING PLAN	90% SUBMITTAL	12/4/2024
68	AC01-CG1-030	GRADING PLAN	90% SUBMITTAL	12/4/2024
69	AC01-CG1-031	GRADING PLAN	90% SUBMITTAL	12/4/2024
70	AC01-CG1-032	GRADING PLAN	90% SUBMITTAL	12/4/2024
71	AC01-CG1-034	GRADING PLAN	90% SUBMITTAL	12/4/2024
RETAINING WALLS				
72	AC01-CK1-000	RETAINING WALL KEYMAP AND INDEX	90% SUBMITTAL	12/4/2024
73	AC01-CK0-001	RETAINING WALL STRUCTURAL NOTES, ABBREVIATIONS AND LEGEND	90% SUBMITTAL	12/4/2024
74	AC01-CK1-011	RETAINING WALL J-2 LAYOUT PLAN	90% SUBMITTAL	12/4/2024
75	AC01-CK1-012	RETAINING WALL J-2 FOUNDATION PLAN NO. 1	90% SUBMITTAL	12/4/2024
76	AC01-CK1-013	RETAINING WALL J-2 FOUNDATION PLAN NO. 2	90% SUBMITTAL	12/4/2024
77	AC01-CK5-011	RETAINING WALL J-2 DETAILS	90% SUBMITTAL	12/4/2024
78	AC01-CK6-001	RETAINING WALL J-2 PILE DATA TABLE NO. 1	90% SUBMITTAL	12/4/2024
79	AC01-CK6-002	RETAINING WALL J-2 PILE DATA TABLE NO. 2	90% SUBMITTAL	12/4/2024
80	AC01-CK5-021	RETAINING WALL TYPE 5-C DETAILS NO. 1	90% SUBMITTAL	12/4/2024
81	AC01-CK5-022	RETAINING WALL TYPE 5-C DETAILS NO. 2	90% SUBMITTAL	12/4/2024
82	AC01-CK1-101	RETAINING WALL J-2 BORING LOCATION PLAN	90% SUBMITTAL	12/4/2024
83	AC01-CK1-102	LEGEND - SOIL 1 OF 2	90% SUBMITTAL	12/4/2024
84	AC01-CK1-103	LEGEND - SOIL 2 OF 2	90% SUBMITTAL	12/4/2024
85	AC01-CK6-101	RETAINING WALL J-2 SOIL BORING LOGS	90% SUBMITTAL	12/4/2024
86	AC01-CK5-901	CALTRANS 2023 STANDARD PLAN B0-3	90% SUBMITTAL	12/4/2024
87	AC01-CK5-902	CALTRANS 2023 STANDARD PLAN B3-5	90% SUBMITTAL	12/4/2024
88	AC01-CK5-903	CALTRANS 2023 STANDARD PLAN B3-6	90% SUBMITTAL	12/4/2024
89	AC01-CK5-904	CALTRANS 2023 STANDARD PLAN B11-81	90% SUBMITTAL	12/4/2024
90	AC01-CK5-905	CALTRANS 2023 STANDARD PLAN B11-82	90% SUBMITTAL	12/4/2024
DRAINAGE				
91	AC01-CJ1-000	DRAINAGE KEYMAP	90% SUBMITTAL	12/4/2024
92	AC01-CJ1-019	DRAINAGE PLAN	90% SUBMITTAL	12/4/2024
93	AC01-CJ1-020	DRAINAGE PLAN	90% SUBMITTAL	12/4/2024
94	AC01-CJ1-021	DRAINAGE PLAN	90% SUBMITTAL	12/4/2024
95	AC01-CJ1-030	DRAINAGE PLAN	90% SUBMITTAL	12/4/2024
96	AC01-CJ1-031	DRAINAGE PLAN	90% SUBMITTAL	12/4/2024

97	AC01-CJ1-120	TEMPORARY DRAINAGE PLAN	90% SUBMITTAL	12/4/2024
98	AC01-CJ1-121	TEMPORARY DRAINAGE PLAN	90% SUBMITTAL	12/4/2024
99	AC01-CJ1-122	TEMPORARY DRAINAGE PLAN	90% SUBMITTAL	12/4/2024
100	AC01-CJ1-131	TEMPORARY DRAINAGE PLAN	90% SUBMITTAL	12/4/2024
101	AC01-CJ2-000	DRAINAGE PROFILE	90% SUBMITTAL	12/4/2024
102	AC01-CJ2-001	DRAINAGE PROFILE	90% SUBMITTAL	12/4/2024
103	AC01-CJ2-002	TEMPORARY DRAINAGE PROFILE	90% SUBMITTAL	12/4/2024
104	AC01-CJ5-000	DRAINAGE DETAILS	90% SUBMITTAL	12/4/2024
105	AC01-CJ5-001	DRAINAGE DETAILS	90% SUBMITTAL	12/4/2024
TRAFFIC SIGNALS				
106	AC01-CM1-000	TRAFFIC SIGNAL KEY MAP	90% SUBMITTAL	12/4/2024
107	AC01-CM1-001	SEPULVEDA BLVD. & CENTURY BLVD.	90% SUBMITTAL	12/4/2024
108	AC01-CM1-002	VICKSBURG AVE. & CENTURY BLVD.	90% SUBMITTAL	12/4/2024
109	AC01-CM1-003	CENTURY BLVD. & JETWAY BLVD. (LAWA PVT STREET)	90% SUBMITTAL	12/4/2024
110	AC01-CM1-004	CENTURY BLVD. & JETWAY BLVD. (LAWA PVT STREET)	90% SUBMITTAL	12/4/2024
ATSAC FIBER OPTIC				
111	AC01-CI1-001	SEPULVEDA BLVD. & CENTURY BLVD.	90% SUBMITTAL	12/4/2024
TEMPORARY LIGHTING				
112	AC01-CB1-000	BSL TEMPORARY STREET LIGHTING PLAN KEY MAP STAGE 1 PHASES A AND B	90% SUBMITTAL	12/4/2024
113	AC01-CB0-001	TEMPORARY STREET LIGHTING GENERAL NOTES	90% SUBMITTAL	12/4/2024
114	AC01-CB1-002A	TEMPORARY STREET LIGHTING PLAN STAGE 1 PHASE A SEPULVEDA BLVD N WORLD WAY RAMP & CENTURY BLVD	90% SUBMITTAL	12/4/2024
115	AC01-CB1-002B	TEMPORARY STREET LIGHTING PLAN STAGE 1 PHASE B SEPULVEDA BLVD N WORLD WAY RAMP & CENTURY BLVD	90% SUBMITTAL	12/4/2024
116	AC01-CB1-010A	TEMPORARY STREET LIGHTING PLAN STAGE 1 PHASE A SEPULVEDA BLVD & 96TH	90% SUBMITTAL	12/4/2024
117	AC01-CB1-010B	TEMPORARY STREET LIGHTING PLAN STAGE 1 PHASE B SEPULVEDA BLVD & 96TH	90% SUBMITTAL	12/4/2024
118	AC01-CB5-001	TEMPORARY STREET LIGHTING DETAILS	90% SUBMITTAL	12/4/2024
119	AC01-CL1-000	TEMPORARY STREET LIGHTING PLAN KEY MAP STAGE 1 PHASES A AND B	90% SUBMITTAL	12/4/2024
120	AC01-CL0-001	TEMPORARY STREET LIGHTING GENERAL NOTES	90% SUBMITTAL	12/4/2024
121	AC01-CL1-002A	TEMPORARY STREET LIGHTING PLAN STAGE 1 PHASE A AND B SEPULVEDA BLVD N WORLD WAY RAMP	90% SUBMITTAL	12/4/2024
122	AC01-CL5-001	TEMPORARY STREET LIGHTING DETAILS	90% SUBMITTAL	12/4/2024
MOT				
123	AC01-CT0-001	WTCP GENERAL NOTES	90% SUBMITTAL	12/4/2024
124	AC01-CT0-002	WTCP GENERAL NOTES	90% SUBMITTAL	12/4/2024
125	AC01-CT1-001	WTCP STAGE KEYMAP	90% SUBMITTAL	12/4/2024
126	AC01-CT1-101A	CENTURY BLVD	90% SUBMITTAL	12/4/2024
127	AC01-CT1-102A	CENTURY BLVD	90% SUBMITTAL	12/4/2024
128	AC01-CT1-103A	CENTURY BLVD	90% SUBMITTAL	12/4/2024
129	AC01-CT1-104A-L	CENTURY BLVD	90% SUBMITTAL	12/4/2024
130	AC01-CT1-106A	CENTURY BLVD	90% SUBMITTAL	12/4/2024
131	AC01-CT1-108A	CENTURY BLVD	90% SUBMITTAL	12/4/2024

132	AC01-CT1-115A	CENTURY BLVD	90% SUBMITTAL	12/4/2024
133	AC01-CT1-116A	CENTURY BLVD	90% SUBMITTAL	12/4/2024
134	AC01-CT1-101B	CENTURY BLVD	90% SUBMITTAL	12/4/2024
135	AC01-CT1-102B	CENTURY BLVD	90% SUBMITTAL	12/4/2024
136	AC01-CT1-103B	CENTURY BLVD	90% SUBMITTAL	12/4/2024
137	AC01-CT1-104B-L	CENTURY BLVD	90% SUBMITTAL	12/4/2024
138	AC01-CT1-106B	CENTURY BLVD	90% SUBMITTAL	12/4/2024
139	AC01-CT1-108B	CENTURY BLVD	90% SUBMITTAL	12/4/2024
140	AC01-CT1-115B	CENTURY BLVD	90% SUBMITTAL	12/4/2024
141	AC01-CT1-116B	CENTURY BLVD	90% SUBMITTAL	12/4/2024
142	AC01-CT4-001	STAGE 1 PHASE A & B DETOUR	90% SUBMITTAL	12/4/2024
CALTRANS				
143	AC01-SC0-001	TITLE SHEET	90% SUBMITTAL	12/4/2024
144	X-1	TYPICAL CROSS SECTIONS	90% SUBMITTAL	12/4/2024
145	K-1	KEY MAP AND LINE INDEX	90% SUBMITTAL	12/4/2024
146	PC-1	PROJECT CONTROL PLAN	90% SUBMITTAL	12/4/2024
147	L-1	LAYOUT	90% SUBMITTAL	12/4/2024
148	C-1	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
149	CS-1	CONSTRUCTION AREA SIGNS	90% SUBMITTAL	12/4/2024
150	MI-1	MOTORIST INFORMATION AND DETOUR	90% SUBMITTAL	12/4/2024
151	SC-1	STAGE CONSTRUCTION AND TRAFFIC HANDLING NOTES AND LEGEND	90% SUBMITTAL	12/4/2024
152	SC-2	STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN	90% SUBMITTAL	12/4/2024
153	SC-3	STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN	90% SUBMITTAL	12/4/2024
154	SC-4	STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN	90% SUBMITTAL	12/4/2024
155	PD-1	PAVEMENT DELINEATION PLAN	90% SUBMITTAL	12/4/2024
156	PD-2	PAVEMENT DELINEATION PLAN	90% SUBMITTAL	12/4/2024
157	PD-3	PAVEMENT DELINEATION PLAN	90% SUBMITTAL	12/4/2024
158	S-1	SIGN PLAN	90% SUBMITTAL	12/4/2024
159	S-2	SIGN PLAN	90% SUBMITTAL	12/4/2024
160	S-3	SIGN PLAN	90% SUBMITTAL	12/4/2024
UTILITIES				
161	AC01-CU1-000	COMPOSITE UTILITIES KEYMAP	90% SUBMITTAL	12/4/2024
162	AC01-CU1-003	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
163	AC01-CU1-004	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
164	AC01-CU1-005	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
165	AC01-CU1-006	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
E 166	AC01-CU1-007	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
E 167	AC01-CU1-008	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
168	AC01-CU1-009	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
169	AC01-CU1-010	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
170	AC01-CU1-011	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
171	AC01-CU1-012	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
172	AC01-CU1-013	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
173	AC01-CU1-014	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
174	AC01-CU1-015	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
175	AC01-CU1-016	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024

176	AC01-CU1-018	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
177	AC01-CU1-019	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
178	AC01-CU1-020	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
179	AC01-CU1-021	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
180	AC01-CU1-022	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
181	AC01-CU1-024	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
182	AC01-CU1-025	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
183	AC01-CU1-026	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
184	AC01-CU1-030	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
185	AC01-CU1-031	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
186	AC01-CU1-032	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
187	AC01-CU1-034	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
188	AC01-CU1-035	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
189	AC01-CU1-036	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
190	AC01-CU1-039	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
191	AC01-CU1-040	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
192	AC01-CU1-041	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
193	AC01-CU1-042	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
194	AC01-CU1-043	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
195	AC01-CU1-044	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
196	AC01-CU1-045	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
197	AC01-CU1-046	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
198	AC01-CU1-047	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
199	AC01-CU1-048	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
200	AC01-CU1-049	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
201	AC01-CU1-050	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
202	AC01-CU1-051	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
203	AC01-CU1-052	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
204	AC01-CU1-053	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
205	AC01-CU1-054	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
206	AC01-CU1-055	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
207	AC01-CU1-056	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
208	AC01-CU1-057	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
209	AC01-CU1-059	COMPOSITE UTILITIES PLAN	90% SUBMITTAL	12/4/2024
SITE				
210	AC01-CS0-001-11	PLOT PLAN - PARCEL 11	90% SUBMITTAL	12/4/2024
211	AC01-CS1-019	CIVIL SITE PLAN 11	90% SUBMITTAL	12/4/2024
212	AC01-CS1-020	CIVIL SITE PLAN 11	90% SUBMITTAL	12/4/2024
213	AC01-CS1-021	CIVIL SITE PLAN 11	90% SUBMITTAL	12/4/2024
214	AC01-CS1-022	CIVIL SITE PLAN 11	90% SUBMITTAL	12/4/2024
215	AC01-CS1-030	CIVIL SITE PLAN 11	90% SUBMITTAL	12/4/2024
216	AC01-CS1-031	CIVIL SITE PLAN 11	90% SUBMITTAL	12/4/2024
AC02 INDEX TO SHEETS				
AC02 - LADOT UTILITY DEMOLITION				
001	CU0-100	COVER SHEET	90% SUBMITTAL	12/4/2024
002	CU0-101	GENERAL NOTES	90% SUBMITTAL	12/4/2024
003	CD1-100	DEMOLITION PLAN - ID 09001-2	90% SUBMITTAL	12/4/2024
004	CD1-101	DEMOLITION PLAN - ID 09003	90% SUBMITTAL	12/4/2024
005	CU5-100	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
AC02 - AT&T UTILITY RELOCATIONS				

001	CU0-200	COVER SHEET	90% SUBMITTAL	12/4/2024
002	CU0-201	GENERAL NOTES	90% SUBMITTAL	12/4/2024
003	CD1-200	DEMOLITION - ID 01047	90% SUBMITTAL	12/4/2024
004	CD1-201	DEMOLITION - ID 01047	90% SUBMITTAL	12/4/2024
005	CU2-200	PLAN & PROFILE - ID 01011	90% SUBMITTAL	12/4/2024
006	CU2-201	PLAN & PROFILE - ID 01011	90% SUBMITTAL	12/4/2024
007	CU2-202	PLAN & PROFILE - ID 01011	90% SUBMITTAL	12/4/2024
008	CU2-203	PLAN & PROFILE - ID 01011	90% SUBMITTAL	12/4/2024
009	CU2-204	PLAN & PROFILE - ID 01012	90% SUBMITTAL	12/4/2024
010	CU2-205	PLAN & PROFILE - ID 01012	90% SUBMITTAL	12/4/2024
011	CU2-206	PLAN & PROFILE - ID 01012	90% SUBMITTAL	12/4/2024
012	CU2-207	PLAN & PROFILE - ID 01046	90% SUBMITTAL	12/4/2024
013	CU2-208	PLAN & PROFILE - ID 01047	90% SUBMITTAL	12/4/2024
014	CU2-209	PLAN & PROFILE - ID 01026	90% SUBMITTAL	12/4/2024
015	CU2-210	PLAN & PROFILE - ID 01002	90% SUBMITTAL	12/4/2024
016	CU2-211	PLAN & PROFILE - ID 01058	90% SUBMITTAL	12/4/2024
017	CU3-200	DUCTBANK CROSS SECTIONS	90% SUBMITTAL	12/4/2024
018	CU5-200	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
019	CU5-201	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
020	CU5-202	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
021	CU5-203	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
022	CU5-204	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
023	CU5-205	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
AC02 - SPECTRUM UTILITY RELOCATION				
001	CU0-300	COVER SHEET	90% SUBMITTAL	12/4/2024
002	CU0-301	GENERAL NOTES	90% SUBMITTAL	12/4/2024
003	CU2-300	PLAN AND PROFILE - ID 11001	90% SUBMITTAL	12/4/2024
004	CU2-301	PLAN AND PROFILE - ID 11001	90% SUBMITTAL	12/4/2024
005	CU2-302	PLAN AND PROFILE - ID 11001	90% SUBMITTAL	12/4/2024
006	CU3-300	DUCTBANK CROSS SECTIONS	90% SUBMITTAL	12/4/2024
007	CU5-300	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
AC02 - CROWN CASTLE UTILITY RELOCATION				
001	CU0-400	COVER SHEET	90% SUBMITTAL	12/4/2024
002	CU0-401	GENERAL NOTES	90% SUBMITTAL	12/4/2024
003	CU2-400	PLAN AND PROFILE - ID 03003	90% SUBMITTAL	12/4/2024
004	CU2-401	PLAN AND PROFILE - ID 03001-07	90% SUBMITTAL	12/4/2024
005	CU3-400	DUCTBANK CROSS SECTIONS	90% SUBMITTAL	12/4/2024
006	CU5-400	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
007	CU5-401	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
AC02 - LADWP-ELEC UTILITY RELOCATIONS				
001	CU0-500	COVER SHEET	90% SUBMITTAL	12/4/2024
002	CU0-501	GENERAL NOTES	90% SUBMITTAL	12/4/2024
003	CD1-500 (CU1-500)	DEMOLITION PLAN - ID 13008 & 13015	90% SUBMITTAL	12/4/2024
AC02 - LAWA UTILITY RELOCATION				
001	CU0-800	COVER SHEET	90% SUBMITTAL	12/4/2024
002	CU0-801	GENERAL NOTES	90% SUBMITTAL	12/4/2024
003	CD1-800	DEMOLITION PLAN - ID 05005-1 & 05012	90% SUBMITTAL	12/4/2024
004	CD1-801	DEMOLITION PLAN - ID 05006-1, 05007-1, 05008-1	90% SUBMITTAL	12/4/2024

AC02 – LADWP-WATER UTILITY RELOCATIONS				
001	CU0-900	COVER SHEET	90% SUBMITTAL	12/4/2024
002	CD1-900	DEMOLITION PLAN - ID 12019-1, 12019-2, 12019-3, 12019-4	90% SUBMITTAL	12/4/2024
003	CD1-901	DEMOLITION PLAN - ID 12019-5	90% SUBMITTAL	12/4/2024
004	CU1-900	WATER PLAN - ID 12013-1, 12014-1, 12015-1, 12016-1	90% SUBMITTAL	12/4/2024
005	CU1-901	WATER PLAN - ID 12004-1	90% SUBMITTAL	12/4/2024
006	CU2-902	WATER PLAN - ID 12004-1	90% SUBMITTAL	12/4/2024
007	CU2-900	WATER PROFILE - ID 12013-1	90% SUBMITTAL	12/4/2024
008	CU2-901	WATER PROFILE - ID 12004-1	90% SUBMITTAL	12/4/2024
009	CU2-902	WATER PROFILE - ID 12004-1	90% SUBMITTAL	12/4/2024
010	CU2-903	WATER PROFILE - ID 12004-1	90% SUBMITTAL	12/4/2024
011	CU5-900	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
012	CU5-901	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
AC02 – LAWA WATER UTILITY RELOCATIONS & DEMOLITION				
001	CU0-1000	COVER SHEET	90% SUBMITTAL	12/4/2024
002	CU0-1001	GENERAL NOTES	90% SUBMITTAL	12/4/2024
003	CU2-1000	PLAN & PROFILE - ID 04011-3, 04011-4	90% SUBMITTAL	12/4/2024
004	CU2-1001	PLAN & PROFILE - ID 04011-1, 04011-2, 04019-1	90% SUBMITTAL	12/4/2024
005	CU5-1000	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024

DU01 60%				
SHT. NO.	SHT DESC.	SHEET TITLE	SUBMITTAL BASIS	REFERENCE DATE
WALL PLANS				
75 of 167	DU01-CK1-011	RETAINING WALL C-1 LAYOUT PLAN	60% SUBMITTAL	7/22/2024
76 of 167	DU01-CK1-012	RETAINING WALL C-1 FOUNDATION PLAN	60% SUBMITTAL	7/22/2024
77 of 167	DU01-CK6-011	RETAINING WALL C-1 PILE DATA TABLE	60% SUBMITTAL	7/22/2024
78 of 167	DU01-CK1-021	RETAINING WALL C-2 LAYOUT PLAN	60% SUBMITTAL	7/22/2024
79 of 167	DU01-CK1-022	RETAINING WALL C-2 FOUNDATION PLAN NO.1	60% SUBMITTAL	7/22/2024
80 of 167	DU01-CK1-023	RETAINING WALL C-2 FOUNDATION PLAN NO.2	60% SUBMITTAL	7/22/2024
81 of 167	DU01-CK5-021	RETAINING WALL C-2 DETAILS	60% SUBMITTAL	7/22/2024
82 of 167	DU01-CK6-021	RETAINING WALL C-2 PILE DATA TABLE	60% SUBMITTAL	7/22/2024
83 of 167	DU01-CK1-031	RETAINING WALL E-2 LAYOUT PLAN	60% SUBMITTAL	7/22/2024
84 of 167	DU01-CK1-032	RETAINING WALL E-2 FOUNDATION PLAN NO.1	60% SUBMITTAL	7/22/2024
85 of 167	DU01-CK1-033	RETAINING WALL E-2 FOUNDATION PLAN NO.2	60% SUBMITTAL	7/22/2024
86 of 167	DU01-CK5-031	RETAINING WALL E-2 DETAILS	60% SUBMITTAL	7/22/2024
87 of 167	DU01-CK6-031	RETAINING WALL E-2 PILE DATA TABLE NO. 1	60% SUBMITTAL	7/22/2024
88 of 167	DU01-CK6-032	RETAINING WALL E-2 PILE DATA TABLE NO. 2	60% SUBMITTAL	7/22/2024
89 of 167	DU01-CK1-041	RETAINING WALL G-1 LAYOUT PLAN	60% SUBMITTAL	7/22/2024
90 of 167	DU01-CK1-042	RETAINING WALL G-1 FOUNDATION PLAN	60% SUBMITTAL	7/22/2024
91 of 167	DU01-CK1-051	RETAINING WALL G-2 LAYOUT PLAN	60% SUBMITTAL	7/22/2024
92 of 167	DU01-CK1-052	RETAINING WALL G-2 FOUNDATION PLAN	60% SUBMITTAL	7/22/2024
93 of 167	DU01-CK5-101	RETAINING WALL TYPE 1-C DETAILS NO. 1	60% SUBMITTAL	7/22/2024
94 of 167	DU01-CK5-102	RETAINING WALL TYPE 1-C DETAILS NO. 1	60% SUBMITTAL	7/22/2024
95 of 167	DU01-CK5-103	RETAINING WALL TYPE 1-S DETAILS	60% SUBMITTAL	7/22/2024
96 of 167	DU01-CK5-104	RETAINING WALL TYPE 5-C DETAILS NO. 1	60% SUBMITTAL	7/22/2024

97 of 167	DU01-CK5-105	RETAINING WALL TYPE 5-C DETAILS NO. 2	60% SUBMITTAL	7/22/2024
98 of 167	DU01-CK5-106	RETAINING WALL TYPE 5-S DETAILS	60% SUBMITTAL	7/22/2024
99 of 167	DU01-CK5-111	RETAINING WALL DETAILS NO. 1	60% SUBMITTAL	7/22/2024

DU01.1 60%				
SHT. NO.	SHT DESC.	SHEET TITLE	SUBMITTAL BASIS	REFERENCE DATE
BRIDGE PLANS				
1 of 46	DU01-S04-000	BRIDGE G KEYMAP	60% SUBMITTAL	8/20/2024
2 of 46	DU01-S04-001	BRIDGE G GENERAL PLAN	60% SUBMITTAL	8/20/2024
3 of 46	DU01-S04-002	BRIDGE G INDEX TO PLANS AND GENERAL NOTES	60% SUBMITTAL	8/20/2024
4 of 46	DU01-S04-003	BRIDGE G DECK CONTOURS	60% SUBMITTAL	8/20/2024
5 of 46	DU01-S04-004	BRIDGE G FOUNDATION PLAN	60% SUBMITTAL	8/20/2024
6 of 46	DU01-S04-005	BRIDGE G CIDH CONCRETE PILE DETAILS	60% SUBMITTAL	8/20/2024
7 of 46	DU01-S04-006	BRIDGE G ABUTMENT LAYOUT NO. 1	60% SUBMITTAL	8/20/2024
8 of 46	DU01-S04-007	BRIDGE G ABUTMENT LAYOUT NO. 2	60% SUBMITTAL	8/20/2024
9 of 46	DU01-S04-008	BRIDGE G ABUTMENT DETAILS NO. 1	60% SUBMITTAL	8/20/2024
10 of 46	DU01-S04-009	BRIDGE G ABUTMENT DETAILS NO. 2	60% SUBMITTAL	8/20/2024
11 of 46	DU01-S04-010	BRIDGE G BENT LAYOUT & DETAILS NO. 1	60% SUBMITTAL	8/20/2024
12 of 46	DU01-S04-011	BRIDGE G BENT LAYOUT & DETAILS NO. 2	60% SUBMITTAL	8/20/2024

DU2A 60%				
SHT. NO.	SHT DESC.	SHEET TITLE	SUBMITTAL BASIS	REFERENCE DATE
BRIDGE PLANS				
54 of 370	DU2A-S01-000	DU2A BRIDGE KEYMAP AND INDEX	60% SUBMITTAL	11/11/2024
55 of 370	DU2A-S01-001	BRIDGE A GENERAL PLAN NO. 1	60% SUBMITTAL	11/11/2024
56 of 370	DU2A-S01-002	BRIDGE A GENERAL PLAN NO. 2	60% SUBMITTAL	11/11/2024
57 of 370	DU2A-S01-003	BRIDGE A INDEX TO PLAN/GENERAL NOTES	60% SUBMITTAL	11/11/2024
58 of 370	DU2A-S01-004	BRIDGE A STRUCTURE PLAN NO. 1	60% SUBMITTAL	11/11/2024
59 of 370	DU2A-S01-005	BRIDGE A STRUCTURE PLAN NO. 2	60% SUBMITTAL	11/11/2024
60 of 370	DU2A-S01-006	BRIDGE A STRUCTURE PLAN NO. 3	60% SUBMITTAL	11/11/2024
61 of 370	DU2A-S01-007	BRIDGE A STRUCTURE PLAN NO. 4	60% SUBMITTAL	11/11/2024
62 of 370	DU2A-S01-008	BRIDGE A STRUCTURE PLAN NO. 5	60% SUBMITTAL	11/11/2024
63 of 370	DU2A-S01-009	BRIDGE A STRUCTURE PLAN NO. 6	60% SUBMITTAL	11/11/2024
64 of 370	DU2A-S01-010	BRIDGE A STRUCTURE PLAN NO. 7	60% SUBMITTAL	11/11/2024
65 of 370	DU2A-S01-011	BRIDGE A STRUCTURE PLAN NO. 8	60% SUBMITTAL	11/11/2024
66 of 370	DU2A-S01-012	BRIDGE A DECK CONTOURS NO. 1	60% SUBMITTAL	11/11/2024
67 of 370	DU2A-S01-013	BRIDGE A DECK CONTOURS NO. 2	60% SUBMITTAL	11/11/2024
68 of 370	DU2A-S01-014	BRIDGE A DECK CONTOURS NO. 3	60% SUBMITTAL	11/11/2024
69 of 370	DU2A-S01-015	BRIDGE A DECK CONTOURS NO. 4	60% SUBMITTAL	11/11/2024
70 of 370	DU2A-S01-016	BRIDGE A FOUNDATION PLAN NO. 1	60% SUBMITTAL	11/11/2024
71 of 370	DU2A-S01-017	BRIDGE A FOUNDATION PLAN NO. 2	60% SUBMITTAL	11/11/2024
72 of 370	DU2A-S01-018	BRIDGE A FOUNDATION PLAN NO. 3	60% SUBMITTAL	11/11/2024
73 of 370	DU2A-S01-019	BRIDGE A FOUNDATION PLAN NO. 4	60% SUBMITTAL	11/11/2024

74 of 370	DU2A-S01-020	BRIDGE A ABUTMENT 1 LAYOUT	60% SUBMITTAL	11/11/2024
75 of 370	DU2A-S01-021	BRIDGE A ABUTMENT 9F LAYOUT	60% SUBMITTAL	11/11/2024
76 of 370	DU2A-S01-022	BRIDGE A ABUTMENT 10C LAYOUT	60% SUBMITTAL	11/11/2024
78 of 370	DU2A-S01-024	BRIDGE A ABUTMENT DETAILS NO. 1	60% SUBMITTAL	11/11/2024
79 of 370	DU2A-S01-025	BRIDGE A ABUTMENT DETAILS NO. 2	60% SUBMITTAL	11/11/2024
80 of 370	DU2A-S01-026	BRIDGE A ABUTMENT DETAILS NO. 3	60% SUBMITTAL	11/11/2024
81 of 370	DU2A-S01-027	BRIDGE A ABUTMENT DETAILS NO. 4	60% SUBMITTAL	11/11/2024
82 of 370	DU2A-S01-028	BRIDGE A BENT LAYOUT NO. 1	60% SUBMITTAL	11/11/2024
83 of 370	DU2A-S01-029	BRIDGE A BENT LAYOUT NO. 2	60% SUBMITTAL	11/11/2024
84 of 370	DU2A-S01-030	BRIDGE A BENT LAYOUT NO. 3	60% SUBMITTAL	11/11/2024
85 of 370	DU2A-S01-031	BRIDGE A BENT DETAILS NO. 1	60% SUBMITTAL	11/11/2024
86 of 370	DU2A-S01-032	BRIDGE A BENT DETAILS NO. 2	60% SUBMITTAL	11/11/2024
87 of 370	DU2A-S01-033	BRIDGE A BENT DETAILS NO. 3	60% SUBMITTAL	11/11/2024
88 of 370	DU2A-S01-034	BRIDGE A BENT DETAILS NO. 4	60% SUBMITTAL	11/11/2024
89 of 370	DU2A-S01-035	BRIDGE A BENT DETAILS NO. 5	60% SUBMITTAL	11/11/2024
90 of 370	DU2A-S01-036	BRIDGE A 96-INCH DIA CIDH PILE DETAILS	60% SUBMITTAL	11/11/2024
91 of 370	DU2A-S01-037	BRIDGE A 108-INCH DIA CIDH PILE DETAILS	60% SUBMITTAL	11/11/2024
92 of 370	DU2A-S01-038	BRIDGE A 120-INCH DIA CIDH PILE DETAILS	60% SUBMITTAL	11/11/2024
93 of 370	DU2A-S01-038A	BRIDGE A 144-INCH DIA CIDH PILE DETAILS	60% SUBMITTAL	11/11/2024
93 of 370	DU2A-S01-039	BRIDGE A ISOLATION CASING DETAILS	60% SUBMITTAL	11/11/2024
163 of 370	DU2A-S02-001	BRIDGE D1 GENERAL PLAN NO.	60% SUBMITTAL	11/11/2024
164 of 370	DU2A-S02-002	BRIDGE D1 INDEX TO PLAN AND GENERAL NOTES	60% SUBMITTAL	11/11/2024
165 of 370	DU2A-S02-003	BRIDGE D1 DECK CONTOURS NO. 1	60% SUBMITTAL	11/11/2024
166 of 370	DU2A-S02-004	BRIDGE D1 DECK CONTOURS NO. 2	60% SUBMITTAL	11/11/2024
167 of 370	DU2A-S02-005	BRIDGE D1 FOUNDATION PLAN	60% SUBMITTAL	11/11/2024
168 of 370	DU2A-S02-006	BRIDGE D1 ABUTMENT LAYOUT NO. 1	60% SUBMITTAL	11/11/2024
169 of 370	DU2A-S02-007	BRIDGE D1 ABUTMENT LAYOUT NO. 2	60% SUBMITTAL	11/11/2024
170 of 370	DU2A-S02-008	BRIDGE D1 ABUTMENT DETAILS NO. 1	60% SUBMITTAL	11/11/2024
171 of 370	DU2A-S02-009	BRIDGE D1 ABUTMENT DETAILS NO. 2	60% SUBMITTAL	11/11/2024
172 of 370	DU2A-S02-010	BRIDGE D1 BENT LAYOUT & DETAILS NO. 1	60% SUBMITTAL	11/11/2024
173 of 370	DU2A-S02-011	BRIDGE D1 BENT LAYOUT & DETAILS NO. 2	60% SUBMITTAL	11/11/2024
174 of 370	DU2A-S02-012	BRIDGE D1 BENT DETAILS	60% SUBMITTAL	11/11/2024
WALL PLANS				
216 of 370	DU2A-CK1-000	RETAINING WALL KEYMAP AND INDEX	60% SUBMITTAL	11/11/2024
217 of 370	DU2A-CK0-001	RETAINING WALL STRUCTURAL NOTES AND LEGEND	60% SUBMITTAL	11/11/2024
218 of 370	DU2A-CK1-011	RETAINING WALL A-1 LAYOUT PLAN	60% SUBMITTAL	11/11/2024
219 of 370	DU2A-CK1-012	RETAINING WALL A-1 FOUNDATION PLAN NO. 1	60% SUBMITTAL	11/11/2024
220 of 370	DU2A-CK1-013	RETAINING WALL A-1 FOUNDATION PLAN NO. 2	60% SUBMITTAL	11/11/2024
221 of 370	DU2A-CK5-011	RETAINING WALL A-1 DETAILS	60% SUBMITTAL	11/11/2024
222 of 370	DU2A-CK6-011	RETAINING WALL A-1 PILE DATA TABLE	60% SUBMITTAL	11/11/2024
223 of 370	DU2A-CK1-021	RETAINING WALL A-2A LAYOUT PLAN	60% SUBMITTAL	11/11/2024
224 of 370	DU2A-CK1-022	RETAINING WALL A-2A FOUNDATION PLAN NO. 1	60% SUBMITTAL	11/11/2024
225 of 370	DU2A-CK1-023	RETAINING WALL A-2A FOUNDATION PLAN NO. 2	60% SUBMITTAL	11/11/2024
226 of 370	DU2A-CK5-021	RETAINING WALL A-2A TYPE 1-S (MOD) DETAILS	60% SUBMITTAL	11/11/2024
227 of 370	DU2A-CK5-022	RETAINING WALL A-2A TYPE T-S DETAILS	60% SUBMITTAL	11/11/2024
228 of 370	DU2A-CK5-023	RETAINING WALL A-2A TYPE T-C DETAILS NO. 1	60% SUBMITTAL	11/11/2024
229 of 370	DU2A-CK5-024	RETAINING WALL A-2A TYPE T-C DETAILS NO. 2	60% SUBMITTAL	11/11/2024
230 of 370	DU2A-CK5-025	RETAINING WALL A-2A DETAILS NO. 1	60% SUBMITTAL	11/11/2024
231 of 370	DU2A-CK5-026	RETAINING WALL A-2A DETAILS NO. 2	60% SUBMITTAL	11/11/2024

232 of 370	DU2A-CK6-021	RETAINING WALL A-2A PILE DATA TABLE	60% SUBMITTAL	11/11/2024
233 of 370	DU2A-CK1-031	RETAINING WALL A-2B LAYOUT PLAN	60% SUBMITTAL	11/11/2024
234 of 370	DU2A-CK1-032	RETAINING WALL A-2B FOUNDATION PLAN	60% SUBMITTAL	11/11/2024
235 of 370	DU2A-CK5-031	RETAINING WALL A-2B TYPE 1- C (MOD) DETAILS NO. 1	60% SUBMITTAL	11/11/2024
236 of 370	DU2A-CK5-032	RETAINING WALL A-2B TYPE 1-C (MOD) DETAILS NO. 2	60% SUBMITTAL	11/11/2024
237 of 370	DU2A-CK5-033	RETAINING WALL A-2B DETAILS	60% SUBMITTAL	11/11/2024
238 of 370	DU2A-CK6-031	RETAINING WALL A-2B PILE DATA TABLE	60% SUBMITTAL	11/11/2024
257 of 370	DU2A-CK1-091	RETAINING WALL D-3 LAYOUT PLAN	60% SUBMITTAL	11/11/2024
258 of 370	DU2A-CK1-092	RETAINING WALL D-3 FOUNDATION PLAN NO. 1	60% SUBMITTAL	11/11/2024
259 of 370	DU2A-CK1-093	RETAINING WALL D-3 FOUNDATION PLAN NO. 2	60% SUBMITTAL	11/11/2024
260 of 370	DU2A-CK6-091	RETAINING WALL D-3 PILE DATA TABLE	60% SUBMITTAL	11/11/2024
261 of 370	DU2A-CK1-101	RETAINING WALL D-4 LAYOUT PLAN	60% SUBMITTAL	11/11/2024
262 of 370	DU2A-CK1-102	RETAINING WALL D-4 FOUNDATION PLAN NO. 1	60% SUBMITTAL	11/11/2024
263 of 370	DU2A-CK1-103	RETAINING WALL D-4 FOUNDATION PLAN NO. 2	60% SUBMITTAL	11/11/2024
264 of 370	DU2A-CK6-101	RETAINING WALL D-4 PILE DATA TABLE	60% SUBMITTAL	11/11/2024
265 of 370	DU2A-CK1-131	RETAINING WALL F-1 LAYOUT PLAN	60% SUBMITTAL	11/11/2024
266 of 370	DU2A-CK1-132	RETAINING WALL F-1 FOUNDATION PLAN	60% SUBMITTAL	11/11/2024
267 of 370	DU2A-CK6-131	RETAINING WALL F-1 PILE DATA TABLE	60% SUBMITTAL	11/11/2024
268 of 370	DU2A-CK1-141	RETAINING WALL F-2 LAYOUT PLAN	60% SUBMITTAL	11/11/2024
269 of 370	DU2A-CK1-142	RETAINING WALL F-2 FOUNDATION PLAN	60% SUBMITTAL	11/11/2024
270 of 370	DU2A-CK6-141	RETAINING WALL F-2 PILE DATA TABLE	60% SUBMITTAL	11/11/2024
271 of 370	DU2A-CK5-201	RETAINING WALL TYPE 1-C DETAILS NO. 1	60% SUBMITTAL	11/11/2024
272 of 370	DU2A-CK5-202	RETAINING WALL TYPE 1-C DETAILS NO. 2	60% SUBMITTAL	11/11/2024
273 of 370	DU2A-CK5-203	RETAINING WALL TYPE 1-S DETAILS	60% SUBMITTAL	11/11/2024
274 of 370	DU2A-CK5-204	RETAINING WALL TYPE 5-C DETAILS NO. 1	60% SUBMITTAL	11/11/2024
275 of 370	DU2A-CK5-205	RETAINING WALL TYPE 5-C DETAILS NO. 2	60% SUBMITTAL	11/11/2024
276 of 370	DU2A-CK5-206	RETAINING WALL TYPE 5-S DETAILS	60% SUBMITTAL	11/11/2024
277 of 370	DU2A-CK5-207	RETAINING WALL DETAIL NO. 1	60% SUBMITTAL	11/11/2024

DU04 60%				
SHT. NO.	SHT DESC.	SHEET TITLE	SUBMITTAL BASIS	REFERENCE DATE
BRIDGE PLANS				
79 of 396	DU04-S01-000	DU04 BRIDGE KEYMAP AND INDEX	60% SUBMITTAL	10/18/2024
80 of 396	DU04-S05-001	BRIDGE I GENERAL PLAN	60% SUBMITTAL	10/18/2024
81 of 396	DU04-S05-002	BRIDGE I INDEX TO PLAN/GENERAL NOTES	60% SUBMITTAL	10/18/2024
82 of 396	DU04-S05-003	BRIDGE I DECK CONTOURS	60% SUBMITTAL	10/18/2024
83 of 396	DU04-S05-004	BRIDGE I FOUNDATION PLAN	60% SUBMITTAL	10/18/2024
84 of 396	DU04-S05-005	BRIDGE I CIDH CONCRETE PILE DETAILS	60% SUBMITTAL	10/18/2024
89 of 396	DU04-S05-010	BRIDGE I BENT LAYOUT & DETAILS NO. 1	60% SUBMITTAL	10/18/2024
90 of 396	DU04-S05-011	BRIDGE I BENT LAYOUT & DETAILS NO. 2	60% SUBMITTAL	10/18/2024
101 of 396	DU04-S06-001	BRIDGE K GENERAL PLAN	60% SUBMITTAL	10/18/2024
102 of 396	DU04-S06-002	BRIDGE K INDEX TO PLAN/GENERAL NOTES	60% SUBMITTAL	10/18/2024
103 of 396	DU04-S06-003	BRIDGE K DECK CONTOURS	60% SUBMITTAL	10/18/2024
104 of 396	DU04-S06-004	BRIDGE K FOUNDATION PLAN	60% SUBMITTAL	10/18/2024

105 of 396	DU04-S06-005	BRIDGE K CIDH CONCRETE PILE DETAILS	60% SUBMITTAL	10/18/2024
110 of 396	DU04-S06-010	BRIDGE K BENT LAYOUT & DETAILS NO. 1	60% SUBMITTAL	10/18/2024
111 of 396	DU04-S06-011	BRIDGE K BENT LAYOUT & DETAILS NO. 2	60% SUBMITTAL	10/18/2024
123 of 396	DU04-S07-001	BRIDGE L GENERAL PLAN NO. 1	60% SUBMITTAL	10/18/2024
124 of 396	DU04-S07-002	BRIDGE L GENERAL PLAN NO. 2	60% SUBMITTAL	10/18/2024
125 of 396	DU04-S07-003	BRIDGE L INDEX TO PLAN/GENERAL NOTES	60% SUBMITTAL	10/18/2024
126 of 396	DU04-S07-004	BRIDGE L FOUNDATION PLAN NO.1 – FRAME 18	60% SUBMITTAL	10/18/2024
127 of 396	DU04-S07-005	BRIDGE L FOUNDATION PLAN NO.2 – FRAME 20	60% SUBMITTAL	10/18/2024
128 of 396	DU04-S07-006	BRIDGE L STRUCTURE PLAN FRAME 18	60% SUBMITTAL	10/18/2024
129 of 396	DU04-S07-007	BRIDGE L STRUCTURE PLAN FRAME 20	60% SUBMITTAL	10/18/2024
133 of 396	DU04-S07-011	BRIDGE L BENT LAYOUT NO. 1	60% SUBMITTAL	10/18/2024
134 of 396	DU04-S07-012	BRIDGE L BENT LAYOUT NO. 2	60% SUBMITTAL	10/18/2024
135 of 396	DU04-S07-013	BRIDGE L BENT LAYOUT NO. 3	60% SUBMITTAL	10/18/2024
136 of 396	DU04-S07-014	BRIDGE L BENT LAYOUT NO. 4	60% SUBMITTAL	10/18/2024
137 of 396	DU04-S07-015	BRIDGE L BENT DETAILS NO. 1	60% SUBMITTAL	10/18/2024
138 of 396	DU04-S07-016	BRIDGE L BENT DETAILS NO. 2	60% SUBMITTAL	10/18/2024
139 of 396	DU04-S07-017	BRIDGE L BENT DETAILS NO. 3	60% SUBMITTAL	10/18/2024
140 of 396	DU04-S07-018	BRIDGE L BENT DETAILS NO. 4	60% SUBMITTAL	10/18/2024
141 of 396	DU04-S07-019	BRIDGE L BENT DETAILS NO. 5	60% SUBMITTAL	10/18/2024
142 of 396	DU04-S07-020	BRIDGE L BENT DETAILS NO. 6	60% SUBMITTAL	10/18/2024
174 of 396	DU04-S08-001	BRIDGE P GENERAL PLAN NO. 1	60% SUBMITTAL	10/18/2024
175 of 396	DU04-S08-002	BRIDGE P GENERAL PLAN NO. 2	60% SUBMITTAL	10/18/2024
176 of 396	DU04-S08-003	BRIDGE P INDEX TO PLAN/GENERAL NOTES	60% SUBMITTAL	10/18/2024
177 of 396	DU04-S08-004	BRIDGE P STAGE CONSTRUCTION NO. 1	60% SUBMITTAL	10/18/2024
178 of 396	DU04-S08-005	BRIDGE P STAGE CONSTRUCTION NO. 2	60% SUBMITTAL	10/18/2024
179 of 396	DU04-S08-006	BRIDGE P DECK CONTOURS	60% SUBMITTAL	10/18/2024
180 of 396	DU04-S08-007	BRIDGE P FOUNDATION PLAN	60% SUBMITTAL	10/18/2024
181 of 396	DU04-S08-008	BRIDGE P CIDH CONCRETE PILE DETAILS	60% SUBMITTAL	10/18/2024
190 of 396	DU04-S08-017	BRIDGE P BENT LAYOUT & DETAILS NO. 1	60% SUBMITTAL	10/18/2024
191 of 396	DU04-S08-018	BRIDGE P BENT LAYOUT & DETAILS NO. 2	60% SUBMITTAL	10/18/2024
192 of 396	DU04-S08-019	BRIDGE P BENT LAYOUT & DETAILS NO. 3	60% SUBMITTAL	10/18/2024
193 of 396	DU04-S08-020	BRIDGE P BENT LAYOUT & DETAILS NO. 4	60% SUBMITTAL	10/18/2024
211 of 396	DU04-S09-001	BRIDGE M GENERAL PLAN NO. 1	60% SUBMITTAL	10/18/2024
212 of 396	DU04-S09-002	BRIDGE M INDEX TO PLAN/GENERAL NOTES	60% SUBMITTAL	10/18/2024
213 of 396	DU04-S09-003	BRIDGE M DECK CONTOURS	60% SUBMITTAL	10/18/2024
214 of 396	DU04-S09-004	BRIDGE M FOUNDATION PLAN	60% SUBMITTAL	10/18/2024
215 of 396	DU04-S09-005	BRIDGE M CIDH CONCRETE PILE DETAILS	60% SUBMITTAL	10/18/2024
216 of 396	DU04-S09-006	BRIDGE M BENT LAYOUT & DETAILS NO. 1	60% SUBMITTAL	10/18/2024
217 of 396	DU04-S09-007	BRIDGE M BENT LAYOUT & DETAILS NO. 2	60% SUBMITTAL	10/18/2024
218 of 396	DU04-S09-008	BRIDGE M ISOLATION CASING DETAILS	60% SUBMITTAL	10/18/2024

PB01 60%				
SHT. NO.	SHT DESC.	SHEET TITLE	SUBMITTAL BASIS	REFERENCE DATE
SEPULVEDA PEDESTRIAN BRIDGE PLANS				
35 of 106	POC1-S00-05	SEPULVEDA PEDESTRIAN BRIDGE GENERAL PLAN & ELEVATION	60% SUBMITTAL	11/15/2024
36 of 106	POC1-S01-01	SEPULVEDA PEDESTRIAN BRIDGE FOUNDATION	60% SUBMITTAL	11/15/2024

		PLAN		
39 of 106	POC1-S02-01	SEPULVEDA PEDESTRIAN BRIDGE GIRDER ELEVATION	60% SUBMITTAL	11/15/2024
40 of 106	POC1-S02-02	SEPULVEDA PEDESTRIAN BRIDGE ABUTMENT ELEVATION	60% SUBMITTAL	11/15/2024
41 of 106	POC1-S02-03	SEPULVEDA PEDESTRIAN BRIDGE STAIRS ELEVATION	60% SUBMITTAL	11/15/2024
47 of 106	POC1-S04-01	SEPULVEDA PEDESTRIAN BRIDGE ABUTMENT LAYOUT	60% SUBMITTAL	11/15/2024
53 of 106	POC1-S05-02	SEPULVEDA PEDESTRIAN BRIDGE ABUTMENT DETAILS	60% SUBMITTAL	11/15/2024
62 of 106	POC1-S06-01	SEPULVEDA PEDESTRIAN BRIDGE PILE DATA TABLE	60% SUBMITTAL	11/15/2024
96TH ST PEDESTRIAN BRIDGE PLANS				
1 of 31	PB01-S10-001	GENERAL PLAN	60% SUBMITTAL	11/11/2024
2 of 31	PB01-S10-002	GENERAL NOTES 1 OF 2	60% SUBMITTAL	11/11/2024
3 of 31	PB01-S10-003	GENERAL NOTES 2 OF 2	60% SUBMITTAL	11/11/2024
5 of 31	PB01-S10-005	FOUNDATION PLAN	60% SUBMITTAL	11/11/2024
9 of 31	PB01-S10-009	BENT 1 LAYOUT	60% SUBMITTAL	11/11/2024
11 of 31	PB01-S10-011	BENTS 2,3,7 AND 8 LAYOUT	60% SUBMITTAL	11/11/2024
12 of 31	PB01-S10-012	BENTS 4 AND 6 LAYOUT	60% SUBMITTAL	11/11/2024
13 of 31	PB01-S10-013	BENT 5 LAYOUT	60% SUBMITTAL	11/11/2024
14 of 31	PB01-S10-014	BENT 9 LAYOUT AND DETAILS	60% SUBMITTAL	11/11/2024
16 of 31	PB01-S10-016	CIDH PILE DETAILS 1 OF 2	60% SUBMITTAL	11/11/2024
17 of 31	PB01-S10-017	CIDH PILE DETAILS 1 OF 2	60% SUBMITTAL	11/11/2024

SCHEMATIC DESIGN 30%				
SHT. NO.	SHT DESC.	SHEET TITLE	SUBMITTAL BASIS (See Clarifications)	REFERENCE DATE
BRIDGE PLANS				
199 of 794	S03-001	BRIDGE D2 GENERAL PLAN NO. 1	30% SUBMITTAL	3/19/2024
200 of 794	S03-002	BRIDGE D2 GENERAL PLAN NO. 2	30% SUBMITTAL	3/19/2024
201 of 794	S03-003	BRIDGE D2 FOUNDATION PLAN NO. 1	30% SUBMITTAL	3/19/2024
202 of 794	S03-004	BRIDGE D2 FOUNDATION PLAN NO. 2	30% SUBMITTAL	3/19/2024
207 of 794	S06-001	BRIDGE K1 GENERAL PLAN	30% SUBMITTAL	3/19/2024
208 of 794	S06-002	BRIDGE K1 FOUNDATION PLAN	30% SUBMITTAL	3/19/2024

DU02 PROGRESS PRINTS 20240920 WALLS 5 & 6				
SHT. NO.	SHT DESC.	SHEET TITLE	SUBMITTAL BASIS (See Clarifications)	REFERENCE DATE
WALL PLANS				
173 of XXX	DU02-CK1-111	RETAINING WALL D-5 LAYOUT PLAN	IN-PROGRESS 60%	9/20/2024
174 of XXX	DU02-CK1-112	RETAINING WALL D-5 FOUNDATION PLAN NO. 1	IN-PROGRESS 60%	9/20/2024
175 of XXX	DU02-CK1-113	RETAINING WALL D-5 FOUNDATION PLAN NO. 2	IN-PROGRESS 60%	9/20/2024
126 of XXX	DU02-CK5-111	RETAINING WALL D-5 DETAILS	IN-PROGRESS 60%	9/20/2024
127 of XXX	DU02-CK6-111	RETAINING WALL D-5 PILE DATA TABLE	IN-PROGRESS 60%	9/20/2024
128 of XXX	DU02-CK1-121	RETAINING WALL D-6 LAYOUT PLAN	IN-PROGRESS 60%	9/20/2024

129 of XXX	DU02-CK1-122	RETAINING WALL D-6 FOUNDATION PLAN NO. 1	IN-PROGRESS 60%	9/20/2024
130 of XXX	DU02-CK5-121	RETAINING WALL D-6 DETAILS	IN-PROGRESS 60%	9/20/2024
131 of XXX	DU02-CK6-121	RETAINING WALL D-6 PILE DATA TABLE	IN-PROGRESS 60%	9/20/2024

The following drawings are not included in cGMP1 proposal, as the scopes are performed by franchise utility owners or no longer required thru coordination with LAWA on billboard removals:

AC02 - OIL UTILITY DEMOLITIONS				
001	CU0-600	COVER SHEET	90% SUBMITTAL	12/4/2024
002	CU0-601	GENERAL NOTES	90% SUBMITTAL	12/4/2024
003	CD1-600	DEMOLITION PLAN-ID 15002, 15003, 15004, 19001	90% SUBMITTAL	12/4/2024
004	CD1-601	DEMOLITION PLAN-ID 15003, 19001	90% SUBMITTAL	12/4/2024
005	CU5-600	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
AC02 – SO CAL (SCG) UTILITY DEMOLITION				
001	CU0-700	COVER SHEET	90% SUBMITTAL	12/4/2024
002	CU0-701	GENERAL NOTES	90% SUBMITTAL	12/4/2024
003	CD1-700	DEMOLITION PLAN - ID14009-1, 2, 3, 4, 5, 6	90% SUBMITTAL	12/4/2024
004	CU5-700	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
AC02 – LADWP-ELEC UTILITY RELOCATIONS				
004	CU2-500	PLAN & PROFILE - ID 13004-1	90% SUBMITTAL	12/4/2024
005	CU5-500	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
006	CU5-501	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
007	CU5-502	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
008	CU5-503	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024
009	CU5-504	LADWP ELECTRIC NOTES & DETAILS	90% SUBMITTAL	12/4/2024
010	CU5-505	LADWP ELECTRIC PLAN	90% SUBMITTAL	12/4/2024
AC02 – LAWA UTILITY RELOCATION				
005	CU2-800	PLAN AND PROFILE - RELOCATION ID 05012	90% SUBMITTAL	12/4/2024
006	CU2-801	PLAN AND PROFILE - RELOCATION ID 05012	90% SUBMITTAL	12/4/2024
007	CU5-800	CONSTRUCTION DETAILS	90% SUBMITTAL	12/4/2024

4.0 TECHNICAL SPECIFICATIONS

The following construction specifications are included in the cGMP1 proposal:

-	-	PROJECT SPECIFIC TECHNICAL SPECIFICATIONS AC-1 and AC-2 90% Final Design	90% SUBMITTAL	12/5/2024
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5.0 CALCULATIONS AND REPORTS

The following reports and calculations are components of the design basis for the cGMP1 proposal:

-	-	BASIS OF DESIGN DRAINAGE REPORT – AC01 90%	90% SUBMITTAL	12/4/2024
-	-	RETAINING WALL CALCULATIONS – AC1 – 90% (J2)	90% SUBMITTAL	12/4/2024



ATMP ROADWAYS IMPROVEMENTS PROJECT cGMP1

Tab 4 Guaranteed Maximum Price

March 25, 2025

Prepared by:
Skanska-Flatiron A Joint Venture

SKANSKA | FLATIRON

ATMP Roadway Improvements Project

3/25/2025

DIRECT COST	\$	219,016,899	
GENERAL REQUIREMENTS	\$	71,366,214	
REMOVALS / DEMOLITION	\$	3,660,655	
UNDERGROUND	\$	29,679,840	
EARTHWORK / PAVING	\$	2,471,386	
SITE CIVIL	\$	-	
STRUCTURES	\$	102,015,593	
ELECTRICAL / LIGHTING / ITS / COMS	\$	-	
AESTHETICS AND FINISHES	\$	-	
OPTION W	\$	-	
ESCALATIONS	\$	9,823,211	Includes escalation on staffing + direct cost
GENERAL CONDITIONS	\$	67,046,305	
STAFFING / CRAFT RELATED	\$	50,172,086	
INSURANCE	\$	12,988,930	
BOND	\$	3,519,516	
GR	\$	365,773	
CONTINGENCY	\$	63,037,655	
SUBCONTRACTS BUYOUT FUND	\$	7,600,000	
GMP NEGOTIATIONS	\$	(10,476,204)	
SUBTOTAL COST	\$	346,224,655	
4.6% MU	\$	15,926,334	
TOTAL REVENUE	\$	362,150,987	
PASS THROUGH COST	\$	67,749,013	
ADJUSTED TOTAL REVENUE	\$	429,900,000	

Exhibit H - Fee Matrix

ATMP Roadway Improvements Project
cGMP1

PHASE 2: After GMP Design and All Construction

Description	Phase 1	Phase 2	Total Project Cost	Comments
Trades				
REMOVALS / DEMOLITION		\$ 3,660,655		Lump Sum Trade Values including Subcontractor Bonds
UNDERGROUND		\$ 29,679,840		Lump Sum Trade Values including Subcontractor Bonds
EARTHWORK / PAVING		\$ 2,471,386		Lump Sum Trade Values including Subcontractor Bonds
SITE CIVIL				Lump Sum Trade Values including Subcontractor Bonds
STRUCTURES		\$ 102,015,593		Lump Sum Trade Values including Subcontractor Bonds
ELECTRICAL / LIGHTING / ITS / COMS				Lump Sum Trade Values including Subcontractor Bonds
AESTHETICS AND FINISHES				Lump Sum Trade Values including Subcontractor Bonds
OPTION W				Lump Sum Trade Values including Subcontractor Bonds
ESCALATIONS		\$ 9,823,211		Lump Sum Trade Values including Subcontractor Bonds
SDI		\$ -		Apply only if not included in trade line items above
Subtotal A	\$ -	\$ 147,650,685		
General Conditions		\$ 50,172,086		Lump Sum
General Requirements		\$ 62,759,797		Lumpsum or Actual cost NTE
Design/Pre-Construction				Lump Sum
CA Services		\$ 8,606,417		Lump Sum (DSDC)
LAWA Allowances	\$ -	\$ -		
Subtotal B	\$ -	\$ 121,538,301		
Phase Subtotal	\$ -	\$ 269,188,986		Trades/GC/GR/Design etc.
Prime Contingency (approx 7% Phase 2)	N/A	\$ 63,037,655		Applies only Phase 2 Subtotal A+ B (Range 0-10%)
Subcontracts Buyout Fund		\$ 7,600,000		
GMP Negotiations		\$ (10,476,204)		
Subtotal C (Direct Cost)	\$ -	\$ 329,350,437		Direct Cost
Prime Profit (4.6%)	4.60%	\$ -	\$ 15,150,120	Applied to All Direct Cost
Subtotal D		\$ -	\$ 344,500,557	Direct Cost and Profit
BOND (0.82%)	0.82%	\$ -	\$ 3,519,516	Applied to JOB VALUE
Profit (4.6%)	4.60%	\$ -	\$ 161,898	Apply to Bond
Insurances				
PH 1 INSURANCES (2%)				Apply to Subtotal Direct Cost, Profit and Bond, if applicable
Profit (4.6%)	4.60%	\$ -		Apply to Insurance
PH 2 INSURANCES			\$ 12,988,930	Apply to JOB VALUE
Profit (4.6%)	4.60%		\$ 597,491	Apply to Insurance
Subtotal E		\$ -	\$ 361,768,391	Direct/Profit/Bond/Insurance
Gross Receipts Taxes (.101%)		\$ -	\$ 365,772	Applies to JOB VALUE
Profit (4.6%)	4.60%		\$ 16,826	Apply to GR
TOTAL COST to LAWA	\$ -	\$ 362,150,987	\$ 362,150,987	Based on Subtotal E + Gross Tax

SUBMITTAL DATE 03/25/25

BID ITEM NO.	SUMMARY GROUP	CLIENT NO	DESCRIPTION	BID PACKAGE	UOM	QTY	MAN HOURS	LABOR & BURDEN	EQUIPMENT	PERMANENT MATERIALS	CONSTRUCTION MATERIALS	SUBCONTRACTORS	OPERATED EQUIP / TRUCKING	UNIT COST	TOTAL COST
1,000,000	1	1000000	GENERAL REQUIREMENTS		LS	1	76,023	\$ 13,554,139.11	\$ 6,333,315.58	\$ 121,265.65	\$ 5,472,827.61	\$ 43,280,538.03	\$ 2,604,128.12		\$ 71,366,214.10
1,000,100	2	1000100	MOBILIZATION AND DEMOBILIZATION		LS	1	5,216	\$ 485,848.85	\$ 1,782,948.94	\$ -	\$ 52,853.07	\$ -	\$ -		\$ 2,321,650.86
1,000,110	4	1000200	Equipment		LS	1	5,248	\$ 485,848.85	\$ 1,782,948.94	\$ -	\$ 52,853.07	\$ -	\$ -		\$ 2,321,650.86
1,000,200	2	1000300	PROJECT MANAGEMENT (PR-02)		MO	28	0	\$ 2,476,020.46	\$ 205,870.00	\$ -	\$ -	\$ -	\$ -		\$ 2,681,890.46
1,000,300	4	1000400	Construction Engineering Support		LS	1	0	\$ 2,476,020.46	\$ 205,870.00	\$ -	\$ -	\$ -	\$ -		\$ 2,681,890.46
1,000,400	4	1000500	Preconstruction - Ph 2		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,000,500	2	1000600	MAINTENANCE OF TRAFFIC (PR-03)		MO	28	18,798	\$ 1,507,837.45	\$ 1,564,978.08	\$ -	\$ 1,146,392.90	\$ 17,947,161.96	\$ 6,332.10		\$ 22,232,196.59
1,000,600	4	1000700	Temporary Crash Cushion Module		EA	99	276	\$ 21,931.71	\$ 8,096.00	\$ -	\$ 35,196.27	\$ -	\$ 15,009.12		\$ 80,233.10
1,000,700	4	1000800	Alternative Temporary Crash Cushions		EA	11	333	\$ 28,033.37	\$ 12,375.12	\$ -	\$ 89,013.29	\$ -	\$ 8,145.76		\$ 137,567.54
1,000,800	4	1000900	Traffic Control Systems		LS	1	16,632	\$ 1,326,357.02	\$ 1,487,586.08	\$ -	\$ 171,807.74	\$ 9,628,468.64	\$ -		\$ 12,614,199.48
1,000,900	4	1001000	Flashing Arrow Signs		EA	6	0	\$ -	\$ -	\$ -	\$ 62,492.23	\$ -	\$ -		\$ 62,492.23
1,001,000	4	1001200	Type III Barricades		EA	48	0	\$ -	\$ -	\$ -	\$ 6,824.24	\$ -	\$ -		\$ 6,824.24
1,001,010	4	1001300	Channelizer (surface Mounted)		EA	46	0	\$ -	\$ -	\$ -	\$ 3,525.90	\$ -	\$ -		\$ 3,525.90
1,001,015	4	1001400	Portable Radar Speed Feedback Sign System		EA	2	0	\$ -	\$ -	\$ -	\$ 44,100.31	\$ -	\$ -		\$ 44,100.31
1,001,100	4	1001500	Temporary Barrier System (Type K)		LF	9,780	1,557	\$ 131,515.35	\$ 56,940.88	\$ -	\$ 371,764.10	\$ -	\$ 42,671.68		\$ 602,892.01
1,001,200	4	1001700	Portable Changeable Message Sign		EA	11	0	\$ -	\$ -	\$ -	\$ 381,568.82	\$ -	\$ -		\$ 381,568.82
1,001,300	4	1001800	Flagging		MO	16	0	\$ -	\$ -	\$ -	\$ -	\$ 4,468,275.20	\$ -		\$ 4,468,275.20
1,001,305	4	1001900	Construction Area Signs		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 300,000.00	\$ -		\$ 300,000.00
1,001,306	4	1002000	Relocate Roadside Sign		EA	3	0	\$ -	\$ -	\$ -	\$ -	\$ 981.00	\$ -		\$ 981.00
1,001,310	4	1002100	Temporary Pavement Marking (Paint)		SF	604	0	\$ -	\$ -	\$ -	\$ -	\$ 2,536.80	\$ -		\$ 2,536.80
1,001,315	4	1002200	Temporary Traffic Stripe (Paint)		LF	29,714	0	\$ -	\$ -	\$ -	\$ -	\$ 31,199.70	\$ -		\$ 31,199.70
1,001,325	4	1002300	Temporary Lighting & Signaling		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,293,649.73	\$ -		\$ 1,293,649.73
1,001,330	4	1002400	Temporary Signage		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000.00	\$ -		\$ 1,000,000.00
1,001,335	4	1002500	Temporary Fence		LF	25,175	0	\$ -	\$ -	\$ -	\$ -	\$ 942,770.89	\$ -		\$ 942,770.89
1,001,400	4	1002600	Noise Monitoring		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 279,280.00	\$ -		\$ 279,280.00
1,001,500	2	1002700	PROGRESS SCHEDULE (PR-04)		MO	1	0	\$ 942,033.68	\$ 94,112.00	\$ -	\$ -	\$ -	\$ -		\$ 1,036,145.68
1,001,600	4	1002800	Project Scheduler		MO	28	0	\$ 942,033.68	\$ 94,112.00	\$ -	\$ -	\$ -	\$ -		\$ 1,036,145.68
1,001,700	4	1002900	Baseline Schedule		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,001,800	4	1003000	Schedule Updates		MO	28	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,001,900	4	1003100	As-Built Schedule		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,002,000	2	1003200	ADVANCES (PR-05)		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,003,100	2	1003300	SITE FIELD OFFICE (PR-06)		MO	28	29,098	\$ 2,582,170.36	\$ 1,626,223.67	\$ 70,886.73	\$ 1,000,366.30	\$ -	\$ 35,340.30		\$ 7,450,987.36
1,003,200	4	1003302	Flow / Pressure Test Existing Fire Hydrants		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,003,300	4	1003400	Field Yard Facilities		MO	16	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,003,325	4	1003500	Field Office PMO - SFJV & LAWA		MO	16	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,003,400	4	1003700	Foreman Trailer		MO	16	0	\$ -	\$ -	\$ -	\$ 502,200.00	\$ -	\$ -		\$ 502,200.00
1,003,410	4	1003800	Graffiti Removal		MO	16	7,560	\$ 823,118.12	\$ 161,386.85	\$ -	\$ 48,274.21	\$ -	\$ -		\$ 832,779.18
1,003,450	4	1003900	Office & Yard		LS	1	21,538	\$ 2,059,052.24	\$ 1,464,836.82	\$ 70,886.73	\$ 2,485,892.09	\$ -	\$ 35,340.30		\$ 6,116,008.18
1,003,500	2	1004000	UTILITIES (PR-07)	CBSP2	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,726,540.00	\$ -		\$ 1,726,540.00
1,003,600	4	1004100	CBSP2 - POTHOLING	CBSP2	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,726,540.00	\$ -		\$ 1,726,540.00
1,004,000	2	1004200	RFI (PR-08)		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,004,100	2	1004300	SUBMITTALS (PR-09)		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,004,200	2	1004400	PRODUCT, MATERIAL AND EQUIPMENT SUBSTITUTIONS		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,004,300	2	1004500	DESIGN MANAGEMENT (PR-11)		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 8,606,417.00	\$ -		\$ 8,606,417.00
1,004,310	4	1004600	DSDCS		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 8,606,417.00	\$ -		\$ 8,606,417.00
1,004,400	2	1004700	THIRD PARTY COORDINATION (PR-12)		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,832,477.07	\$ -		\$ 1,832,477.07
1,004,450	4	1004800	AHJ Support		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,832,477.07	\$ -		\$ 1,832,477.07
1,004,500	2	1004900	QUALITY ASSURANCE / QUALITY CONTROL (PR-13 / 14)		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 10,205,126.00	\$ -		\$ 10,205,126.00
1,005,000	4	1005000	QC		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 10,205,126.00	\$ -		\$ 10,205,126.00
1,005,200	2	1005100	SAFETY (PR-15)		LS	1	0	\$ 2,735,164.82	\$ 316,417.00	\$ -	\$ -	\$ -	\$ -		\$ 3,051,581.82
1,005,250	4	1005200	Safety Management		LS	1	0	\$ 2,735,164.82	\$ 316,417.00	\$ -	\$ -	\$ -	\$ -		\$ 3,051,581.82
1,005,300	2	1005300	CONSTRUCTION SURVEY (PR-16)		LS	1	0	\$ 279,178.58	\$ 61,824.00	\$ -	\$ 22,264.81	\$ 2,125,060.00	\$ -		\$ 2,488,327.39
1,005,400	4	1005302	Replace / Reset Survey Monuments		EA	10	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,005,500	4	1005304	Pre / Post Construction Survey Tie		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 135,000.00	\$ -		\$ 135,000.00
1,005,700	4	1005306	Pre / Post Survey For Curb Ramps		EA	13	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,005,800	4	1005400	Construction Survey		LS	1	2,688	\$ 279,178.58	\$ 61,824.00	\$ -	\$ 22,264.81	\$ 1,990,060.00	\$ -		\$ 2,353,327.39
1,006,100	2	1005500	PORTABLE BATCH PLANT & CRUSHER (PR-17)		LS	1	680	\$ 70,723.66	\$ 106,131.68	\$ -	\$ 5,643.96	\$ -	\$ 19,540.80		\$ 316,007.10
1,006,200	2	1006000	ENVIRONMENTAL MANAGEMENT (PR-18)		MO	28	14,135	\$ 1,171,218.75	\$ 434,844.21	\$ 50,946.92	\$ 1,177,963.89	\$ 435,400.00	\$ 25,146.08		\$ 5,639,259.23

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COST SUMMARY

ATMP Roadway Improvements Project

SUBMITTAL DATE 03/25/25

BID ITEM NO.	SUMMARY GROUP	CLIENT NO	DESCRIPTION	BID PACKAGE	UOM	QTY	MAN HOURS	LABOR & BURDEN	EQUIPMENT	PERMANENT MATERIALS	CONSTRUCTION MATERIALS	SUBCONTRACTORS	OPERATED EQUIP / TRUCKING	UNIT COST	TOTAL COST
1,006,300	4	1005700	Develop Water		LS	1	160	\$ 14,798.30	\$ 114,431.46	\$ 44,002.24	\$ 418,267.46	\$ -	\$ -		\$ 591,499.46
1,006,400	4	1005800	Job Site Management		LS	1	8,589	\$ 705,153.50	\$ 171,190.85	\$ -	\$ 136,884.21	\$ 120,000.00	\$ -		\$ 1,133,228.56
1,006,500	4	1005900	Prepare Storm Water Pollution Prevention Plan		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 10,000.00	\$ -		\$ 10,000.00
1,006,600	4	1006000	Rain Event Action Plan - Sub		EA	24	0	\$ -	\$ -	\$ -	\$ -	\$ 12,000.00	\$ -		\$ 12,000.00
1,006,700	4	1006100	Storm Water Sampling and Analysis (Day)		EA	12	0	\$ -	\$ -	\$ -	\$ -	\$ 12,000.00	\$ -		\$ 12,000.00
1,006,800	4	1006200	Storm Annual Reports		EA	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,000.00	\$ -		\$ 1,000.00
1,006,900	4	1006300	Temporary Erosion Control: Hydraulic Mulch, Di Pro		LS	1	4,818	\$ 391,661.09	\$ 101,563.79	\$ -	\$ 618,002.24	\$ 250,400.00	\$ 63,597.60		\$ 1,425,224.72
1,006,910	5	1006400	Temporary Hydraulic Mulch		SOYD	20,000	0	\$ -	\$ -	\$ -	\$ -	\$ 16,000.00	\$ -		\$ 16,000.00
1,006,920	5	1006500	Temporary Check Dam		LF	262	264	\$ 21,757.39	\$ 5,492.89	\$ -	\$ 2,809.97	\$ -	\$ -		\$ 30,060.25
1,006,930	5	1006600	Temporary Drainage Inlet Protection		EA	66	610	\$ 48,787.55	\$ 7,447.20	\$ -	\$ 12,411.14	\$ -	\$ 1,944.00		\$ 70,589.89
1,006,940	5	1006700	Temporary Fiber Roll		LF	38,378	2,236	\$ 177,918.83	\$ 25,438.80	\$ -	\$ 69,596.65	\$ -	\$ 45,360.00		\$ 318,314.28
1,006,960	5	1006900	Temporary Silt Fence		LF	1,000	168	\$ 13,434.99	\$ 2,035.80	\$ -	\$ 1,766.31	\$ -	\$ 648.00		\$ 17,885.10
1,006,970	5	1007000	Temporary Construction Entrance		EA	20	1,540	\$ 129,762.33	\$ 61,149.10	\$ -	\$ 531,418.17	\$ -	\$ 15,645.60		\$ 737,975.20
1,006,980	5	1007100	Temporary Concrete Washout		CY	44,675	0	\$ -	\$ -	\$ -	\$ -	\$ 234,400.00	\$ -		\$ 234,400.00
1,007,600	4	1007200	Street Sweeping		DAY	336	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,131,755.52		\$ 1,131,755.52
1,007,615	4	1007300	Dust Control (Water Truck)		DAY	336	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,055,496.96		\$ 1,055,496.96
1,007,620	4	1007400	Temporary Access Roads		SF	4,020	568	\$ 59,605.86	\$ 47,658.11	\$ 6,376.68	\$ 4,809.98	\$ 30,000.00	\$ 118,603.38		\$ 267,054.01
1,007,621	5	1007402	Grading		SF	10,006	494	\$ 52,163.82	\$ 43,421.01	\$ -	\$ 4,214.07	\$ -	\$ 115,462.02		\$ 215,260.92
1,007,622	5	1007404	Base		CY	75	74	\$ 7,442.04	\$ 4,237.10	\$ 6,376.68	\$ 595.91	\$ -	\$ 3,141.36		\$ 21,793.09
1,009,623	5	1007406	HMA Paving		TN	150	0	\$ -	\$ -	\$ -	\$ -	\$ 30,000.00	\$ -		\$ 30,000.00
1,008,100	4	1007500	Construction Equipment Emissions Controls		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,008,200	2	1007600	CONTAMINATED MATERIAL MANAGEMENT (PR-19)		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 10,000.00	\$ -		\$ 10,000.00
1,008,300	4	1007700	Hazardous Materials Management Plan		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 10,000.00	\$ -		\$ 10,000.00
1,008,700	2	1008100	SUSTAINABILITY PROJECT MANAGEMENT (PR-20)		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,009,100	2	1008200	BIM / VDC COORDINATION (PR-21)		LS	1	0	\$ 788,733.85	\$ 64,702.00	\$ -	\$ -	\$ -	\$ -		\$ 853,435.85
1,009,200	2	1008300	3MR PROPOSALS (PR-22)		EA	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,009,300	2	1008400	PHOTO AND VIDEO DOCUMENTATION (PR-24)		MO	28	0	\$ -	\$ -	\$ -	\$ -	\$ 392,356.00	\$ -		\$ 392,356.00
1,009,400	4	1008500	Preconstruction Photo Survey		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 79,500.00	\$ -		\$ 79,500.00
1,009,500	4	1008600	Photo Documentation During Construction		MO	16	0	\$ -	\$ -	\$ -	\$ -	\$ 63,488.00	\$ -		\$ 63,488.00
1,009,700	4	1008700	Preconstruction Video Survey		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 79,500.00	\$ -		\$ 79,500.00
1,009,800	4	1008800	Video Documentation During Construction		MO	16	0	\$ -	\$ -	\$ -	\$ -	\$ 63,488.00	\$ -		\$ 63,488.00
1,010,000	4	1008900	Construction Web Cam		MO	16	0	\$ -	\$ -	\$ -	\$ -	\$ 106,380.00	\$ -		\$ 106,380.00
1,010,100	4	1009000	Time Lapse Photos		MO	16	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,010,300	2	1009100	PROJECT RECORD DOCUMENTS (PR-25)		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,010,400	2	1009200	COMMISSIONING AND TRAINING (PR-26)		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
1,010,500	2	1009300	PROJECT CLOSEOUT (PR-27)		LS	1	0	\$ 415,208.65	\$ 75,264.00	\$ -	\$ 31,342.68	\$ -	\$ -		\$ 521,815.33
1,010,700	4	1009400	Cleaning		LS	1	5,376	\$ 415,208.65	\$ 75,264.00	\$ -	\$ 31,342.68	\$ -	\$ -		\$ 521,815.33
2,000,000	1	2000000	REMOVALS / DEMOLITION		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 3,660,655.00	\$ -		\$ 3,660,655.00
2,000,050	1	2000100	CBW10 - TREE REMOVALS	CBW10	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 118,300.00	\$ -		\$ 118,300.00
2,000,200	4	2000200	Remove Trees	CBW10	EA	38	0	\$ -	\$ -	\$ -	\$ -	\$ 118,300.00	\$ -		\$ 118,300.00
2,000,250	2	2000300	CBSP3 - CIVIL / STRUCTURE DEMO	CBSP3	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 2,942,355.00	\$ -		\$ 2,942,355.00
2,004,320	1	2004800	CBSP3 - CIVIL / STRUCTURE DEMO		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 2,942,355.00	\$ -		\$ 2,942,355.00
2,004,375	2	2004900	CBW5 - BUILDING DEMO	CBW5	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 600,000.00	\$ -		\$ 600,000.00
2,004,400	1	2005000	Remove Miscellaneous Structures	CBW5	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 600,000.00	\$ -		\$ 600,000.00
3,000,000	1	3000100	UNDERGROUND		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 29,679,840.05	\$ -		\$ 29,679,840.05
3,000,010	1	3000200	CBW7 - WATERLINES	CBW7	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,872,484.05	\$ -		\$ 1,872,484.05
3,000,035	3	3002100	WATERLINES		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,872,484.05	\$ -		\$ 1,872,484.05
3,000,036	4	3002200	CBW7 - WATERLINES	CBW7	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,872,484.05	\$ -		\$ 1,872,484.05
3,000,100	2	3002300	CBW6 - ELECTRICAL & COMM DUCTBANK	CBW6	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 22,887,000.00	\$ -		\$ 22,887,000.00
3,000,545	3	3008500	DRY UTILITIES		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 22,887,000.00	\$ -		\$ 22,887,000.00
3,000,546	4	3006600	CBW6 - DRY UTILITIES	CBW6	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 22,887,000.00	\$ -		\$ 22,887,000.00
3,000,600	2	3007400	CBSP5 - STORMDRAIN	CBSP5	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 3,255,163.00	\$ -		\$ 3,255,163.00
3,003,845	4	3009100	CBSP5 - STORM DRAIN	CBSP5	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 3,255,163.00	\$ -		\$ 3,255,163.00
3,003,850	1	3009200	CBSP4 - REINFORCED BOX CULVERT	CBSP4	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,665,193.00	\$ -		\$ 1,665,193.00
3,003,995	4	3009900	CBSP4 - REINFORCED BOX CULVERT	CBSP4	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,665,193.00	\$ -		\$ 1,665,193.00
4,000,000	1	4000000	EARTHWORK / PAVING		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 2,471,386.00	\$ -		\$ 2,471,386.00
4,000,010	2	4000100	CBSP6 - EARTHWORK / GRADING	CBSP6	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,162,141.00	\$ -		\$ 1,162,141.00
4,001,217	3	4001500	CBSP6 - EARTHWORK / GRADING	CBSP6	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,162,141.00	\$ -		\$ 1,162,141.00

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CGMP1 TAB 4

COST SUMMARY

ATMP Roadway Improvements Project

SUBMITTAL DATE 03/25/25

BID ITEM NO.	SUMMARY GROUP	CLIENT NO	DESCRIPTION	BID PACKAGE	UOM	QTY	MAN HOURS	LABOR & BURDEN	EQUIPMENT	PERMANENT MATERIALS	CONSTRUCTION MATERIALS	SUBCONTRACTORS	OPERATED EQUIP / TRUCKING	UNIT COST	TOTAL COST
4,001,218	2	4001800	CB ASPHALT PAVIN	CBW8	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,309,245.00	\$ -	\$ -	\$ 1,309,245.00
4,001,230	4	4001800	HMA (Temp Detour Paving)	CBW8	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,309,245.00	\$ -	\$ -	\$ 1,309,245.00
6,000,000	1	6000000	STRUCTURES	0	LS	1	58,863	\$ 5,153,846.12	\$ 4,590,948.31	\$ 2,623,779.70	\$ 19,529,474.74	\$ 66,923,142.00	\$ 3,194,402.10	\$ -	\$ 102,015,592.97
6,000,100	2	6000100	NSP1 - ABUTMENTS & COLUMNS	NSP1	SF	336,565	44,629	\$ 3,897,669.05	\$ 3,836,378.32	\$ 1,690,458.09	\$ 1,103,025.98	\$ 333,600.00	\$ 481,101.97	\$ -	\$ 11,342,233.51
6,000,200	3	6000200	A Sepulveda / 98th / Jetway / Century	NSP1	SF	156,647	15,708	\$ 1,376,336.08	\$ 1,242,804.59	\$ 758,629.73	\$ 384,849.46	\$ 96,000.00	\$ 218,828.01	\$ -	\$ 4,077,047.87
6,000,300	4	6000300	A Structure Excavation (Bridge)	NSP1	CY	782	435	\$ 40,935.13	\$ 27,794.69	\$ -	\$ 3,340.76	\$ -	\$ 74,027.94	\$ -	\$ 146,098.52
6,000,350	4	6000400	A Shoring	NSP1	SF	160	0	\$ -	\$ -	\$ -	\$ -	\$ 96,000.00	\$ -	\$ -	\$ 96,000.00
6,000,400	4	6000500	A Structure Backfill (Bridge)	NSP1	CY	571	684	\$ 67,209.40	\$ 52,080.58	\$ 42,615.79	\$ 5,548.31	\$ -	\$ 18,848.16	\$ -	\$ 186,302.24
6,000,710	4	6000600	A Structural Concrete, Bridge Footing	NSP1	CY	266	728	\$ 60,324.35	\$ 9,213.05	\$ 83,390.72	\$ 8,765.29	\$ -	\$ 8,151.02	\$ -	\$ 169,844.43
6,000,720	5	6000700	A FPS Footings	NSP1	CY	266	628	\$ 52,263.41	\$ 3,877.35	\$ -	\$ 6,237.03	\$ -	\$ -	\$ -	\$ 62,377.79
6,000,730	5	6000800	A Incidentals	NSP1	CY	266	100	\$ 8,060.94	\$ 1,355.00	\$ -	\$ 2,528.26	\$ -	\$ -	\$ -	\$ 11,944.20
6,000,740	5	6000900	A Equipment	NSP1	CY	266	0	\$ -	\$ 3,980.70	\$ -	\$ -	\$ -	\$ 8,151.02	\$ -	\$ 12,131.72
6,000,750	5	6001000	A Ready Mix	NSP1	CY	266	0	\$ -	\$ -	\$ 83,390.72	\$ -	\$ -	\$ -	\$ -	\$ 83,390.72
6,000,800	4	6001100	A Structural Concrete, Bridge	NSP1	CY	1,203	12,637	\$ 1,102,727.23	\$ 1,118,402.63	\$ 474,668.72	\$ 324,513.75	\$ -	\$ 100,907.88	\$ -	\$ 3,121,220.21
6,000,810	5	6001200	A FPS Abutments & Wing Walls	NSP1	CY	363	2,695	\$ 229,351.86	\$ 13,081.35	\$ 13,593.36	\$ 39,905.13	\$ -	\$ -	\$ -	\$ 295,931.70
6,000,820	5	6001300	A FPS Columns	NSP1	CY	840	5,621	\$ 471,527.73	\$ 37,491.52	\$ 18,408.85	\$ 216,390.58	\$ -	\$ 4,103.66	\$ -	\$ 747,922.34
6,000,850	5	6001400	A Incidentals	NSP1	CY	1,203	2,209	\$ 178,785.12	\$ 20,988.00	\$ 2,580.00	\$ 50,289.82	\$ -	\$ -	\$ -	\$ 252,642.94
6,000,860	5	6001500	A Equipment	NSP1	CY	1,203	2,112	\$ 223,062.52	\$ 1,046,841.76	\$ -	\$ 17,928.22	\$ -	\$ 96,804.22	\$ -	\$ 1,384,636.72
6,000,865	5	6001600	A Ready Mix	NSP1	CY	1,203	0	\$ -	\$ -	\$ 440,086.51	\$ -	\$ -	\$ -	\$ -	\$ 440,086.51
6,001,000	4	6001700	A Concrete Surface Texture	NSP1	SF	3,744	193	\$ 16,980.11	\$ 4,353.64	\$ 263.30	\$ 35,441.95	\$ -	\$ 1,099.04	\$ -	\$ 58,138.04
6,001,350	4	6001800	A Isolation Casing	NSP1	LF	74	1,032	\$ 88,159.86	\$ 30,960.00	\$ 157,691.20	\$ 7,039.40	\$ -	\$ 15,593.97	\$ -	\$ 299,444.43
6,002,000	3	6001900	C Jetway To Century / 96th St	NSP1	SF	4,500	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6,006,000	3	6002000	D1 98th To Sepulveda / Arrivals	NSP1	SF	24,319	3,993	\$ 362,496.38	\$ 636,268.25	\$ 143,395.67	\$ 95,248.63	\$ -	\$ 47,772.84	\$ -	\$ 1,285,181.77
6,006,100	4	6002100	D1 Structure Excavation (Bridge)	NSP1	CY	280	69	\$ 6,281.83	\$ 2,951.08	\$ -	\$ 532.87	\$ -	\$ 22,543.80	\$ -	\$ 32,309.58
6,006,200	4	6002300	D1 Structure Backfill (Bridge)	NSP1	CY	208	57	\$ 5,600.78	\$ 4,340.05	\$ 15,523.79	\$ 550.36	\$ -	\$ 1,570.68	\$ -	\$ 27,585.66
6,006,550	4	6002400	D1 Structural Concrete, Bridge Footing	NSP1	CY	109	255	\$ 21,075.62	\$ 5,520.63	\$ 34,354.63	\$ 3,410.12	\$ -	\$ 2,766.14	\$ -	\$ 67,127.14
6,006,560	5	6002500	D1 FPS Footings	NSP1	CY	109	212	\$ 17,613.30	\$ 1,389.35	\$ -	\$ 2,251.46	\$ -	\$ -	\$ -	\$ 21,254.11
6,006,570	5	6002600	D1 Incidentals	NSP1	CY	109	43	\$ 3,462.32	\$ 547.00	\$ -	\$ 1,158.66	\$ -	\$ -	\$ -	\$ 5,187.98
6,006,580	5	6002700	D1 Equipment	NSP1	CY	109	0	\$ -	\$ 3,584.28	\$ -	\$ -	\$ -	\$ 2,766.14	\$ -	\$ 6,350.42
6,006,590	5	6002800	D1 Ready Mix	NSP1	CY	109	0	\$ -	\$ -	\$ 34,354.63	\$ -	\$ -	\$ -	\$ -	\$ 34,354.63
6,006,600	4	6002900	D1 Structural Concrete, Bridge	NSP1	CY	247	3,547	\$ 323,830.38	\$ 621,986.32	\$ 93,426.53	\$ 78,555.35	\$ -	\$ 20,513.55	\$ -	\$ 1,138,312.13
6,006,610	5	6003000	D1 FPS Abutments & Wing Walls	NSP1	CY	147	999	\$ 84,428.71	\$ 5,218.71	\$ 8,216.06	\$ 30,408.46	\$ -	\$ -	\$ -	\$ 128,271.94
6,006,620	5	6003100	D1 FPS Columns	NSP1	CY	100	902	\$ 75,641.60	\$ 5,939.04	\$ 2,062.96	\$ 27,320.18	\$ -	\$ 488.53	\$ -	\$ 111,452.31
6,006,650	5	6003200	D1 Incidentals	NSP1	CY	247	414	\$ 33,640.26	\$ 3,826.75	\$ 1,068.00	\$ 10,368.58	\$ -	\$ -	\$ -	\$ 48,903.59
6,006,660	5	6003300	D1 Equipment	NSP1	CY	247	1,232	\$ 130,119.81	\$ 607,001.82	\$ -	\$ 10,458.13	\$ -	\$ 20,025.02	\$ -	\$ 767,604.78
6,006,665	5	6003400	D1 Ready Mix	NSP1	CY	247	0	\$ -	\$ -	\$ 82,079.51	\$ -	\$ -	\$ -	\$ -	\$ 82,079.51
6,006,800	4	6003500	D1 Concrete Surface Texture	NSP1	SF	1,290	65	\$ 5,707.77	\$ 1,470.17	\$ 90.72	\$ 12,199.93	\$ -	\$ 378.67	\$ -	\$ 19,847.26
6,004,000	3	6003600	D2 Jetway To 96th	NSP1	SF	88,237	7,443	\$ 642,949.43	\$ 571,274.98	\$ 326,929.91	\$ 272,995.38	\$ -	\$ 63,250.26	\$ -	\$ 1,877,399.96
6,004,100	4	6003700	D2 Structure Excavation (Bridge)	NSP1	CY	282	69	\$ 6,281.83	\$ 2,951.08	\$ -	\$ 532.87	\$ -	\$ 20,599.80	\$ -	\$ 30,365.58
6,004,200	4	6003900	D2 Structure Backfill (Bridge)	NSP1	CY	188	57	\$ 5,600.78	\$ 4,340.05	\$ 14,031.12	\$ 511.76	\$ -	\$ 1,570.68	\$ -	\$ 26,054.36
6,004,550	4	6004000	D2 Structural Concrete, Bridge Footing	NSP1	CY	62	222	\$ 18,464.34	\$ 3,552.24	\$ 19,026.34	\$ 2,536.41	\$ -	\$ 2,656.14	\$ -	\$ 46,235.47
6,004,560	5	6004100	D2 FPS Footings	NSP1	CY	62	169	\$ 14,126.58	\$ 1,036.68	\$ -	\$ 1,607.67	\$ -	\$ -	\$ -	\$ 16,770.93
6,004,570	5	6004200	D2 Incidentals	NSP1	CY	62	53	\$ 4,337.76	\$ 659.00	\$ -	\$ 928.74	\$ -	\$ -	\$ -	\$ 5,925.50
6,004,580	5	6004300	D2 Equipment	NSP1	CY	62	0	\$ -	\$ 1,856.56	\$ -	\$ -	\$ -	\$ 2,656.14	\$ -	\$ 4,512.70
6,004,590	5	6004400	D2 Ready Mix	NSP1	CY	62	0	\$ -	\$ -	\$ 19,026.34	\$ -	\$ -	\$ -	\$ -	\$ 19,026.34
6,004,600	4	6004500	D2 Structural Concrete, Bridge	NSP1	CY	868	7,029	\$ 606,773.11	\$ 558,913.15	\$ 293,774.21	\$ 256,231.15	\$ -	\$ 38,013.56	\$ -	\$ 1,753,705.18
6,004,610	5	6004600	D2 FPS Abutments & Wing Walls	NSP1	CY	148	779	\$ 65,465.91	\$ 3,824.68	\$ 3,037.29	\$ 19,026.04	\$ -	\$ -	\$ -	\$ 101,353.92
6,004,620	5	6004700	D2 FPS Columns	NSP1	CY	720	3,693	\$ 309,351.77	\$ 24,555.63	\$ 14,853.30	\$ 177,874.60	\$ -	\$ 3,817.42	\$ -	\$ 530,152.72
6,004,650	5	6004800	D2 Incidentals	NSP1	CY	868	1,517	\$ 122,114.04	\$ 12,608.00	\$ 3,102.00	\$ 31,502.22	\$ -	\$ -	\$ -	\$ 169,326.26
6,004,660	5	6004900	D2 Equipment	NSP1	CY	868	1,040	\$ 109,841.39	\$ 517,924.84	\$ -	\$ 17,828.29	\$ -	\$ 34,406.14	\$ -	\$ 680,090.66
6,004,665	5	6005000	D2 Ready Mix	NSP1	CY	868	0	\$ -	\$ -	\$ 272,781.62	\$ -	\$ -	\$ -	\$ -	\$ 272,781.62
6,004,800	4	6005100	D2 Concrete Surface Texture	NSP1	SF	1,397	66	\$ 5,829.37	\$ 1,518.46	\$ 98.24	\$ 13,183.19	\$ -	\$ 410.08	\$ -	\$ 21,039.34
6,010,000	3	6005200	F1 Sepulveda To 98th	NSP1	SF	2,087	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6,012,000	3	6005300	G Jetway To 96th	NSP1	SF	17,545	2,896	\$ 253,436.01	\$ 204,197.21	\$ 151,278.45	\$ 87,383.55	\$ -	\$ 53,123.08	\$ -	\$ 739,418.90
6,012,100	4	6005400	G Structure Excavation (Bridge)	NSP1	CY	342	81	\$ 7,421.67	\$ 3,714.40	\$ -	\$ 622.45	\$ -	\$ 26,108.09	\$ -	\$ 37,866.61
6,012,200	4	6005600	G Structure Backfill (Bridge)	NSP1	CY	280	114	\$ 11,201.58	\$ 8,680.10	\$ 20,897.41	\$ 989.88	\$ -	\$ 3,141.36	\$ -	\$ 44,910.33
6,012,550	4	6005700	G Structural Concrete, Bridge Footing	NSP1	CY	118	257	\$ 21,220.29	\$ 3,512.97	\$ 37,290.92	\$ 3,496.38	\$ -	\$ 2,788.14	\$ -	\$ 68,308.70
6,012,560	5	6005800	G FPS Footings	NSP1	CY	118	212	\$ 17,613.30	\$ 1,389.35	\$ -	\$ 2,322.26	\$ -	\$ -	\$ -	\$ 21,324.91

cGMP1 TAB 4

COST SUMMARY

ATMP Roadway Improvements Project

SUBMITTAL DATE

03/25/25

BID ITEM NO.	SUMMARY GROUP	CLIENT NO	DESCRIPTION	BID PACKAGE	UOM	QTY	MAN HOURS	LABOR & BURDEN	EQUIPMENT	PERMANENT MATERIALS	CONSTRUCTION MATERIALS	SUBCONTRACTORS	OPERATED EQUIP / TRUCKING	UNIT COST	TOTAL COST
6,012,570	5	6005900	G _ Incidentals	NSP1	CY	118	45	\$ 3,606.99	\$ 531.34	\$ -	\$ 1,174.12	\$ -	\$ -		\$ 5,312.45
6,012,580	5	6006000	G _ Equipment	NSP1	CY	118	0	\$ -	\$ 1,592.28	\$ -	\$ -	\$ -	\$ 2,788.14		\$ 4,380.42
6,012,590	5	6006100	G _ Ready Mix	NSP1	CY	118	0	\$ -	\$ -	\$ 37,290.92	\$ -	\$ -	\$ -		\$ 37,290.92
6,012,600	4	6006200	G _ Structural Concrete, Bridge	NSP1	CY	246	2,326	\$ 203,239.50	\$ 185,771.36	\$ 92,974.43	\$ 66,467.01	\$ -	\$ 10,603.21		\$ 559,055.51
6,012,610	5	6006300	G _ FPS Abutments & Wing Walls	NSP1	CY	187	1,156	\$ 98,098.07	\$ 5,946.71	\$ 7,320.26	\$ 37,953.92	\$ -	\$ -		\$ 149,318.96
6,012,620	5	6006400	G _ FPS Columns	NSP1	CY	59	501	\$ 42,070.66	\$ 3,386.66	\$ 1,217.15	\$ 15,917.50	\$ -	\$ 288.23		\$ 62,880.20
6,012,650	5	6006500	G _ Incidentals	NSP1	CY	246	318	\$ 25,893.68	\$ 2,801.25	\$ 1,050.00	\$ 9,607.55	\$ -	\$ -		\$ 39,352.48
6,012,660	5	6006600	G _ Equipment	NSP1	CY	246	352	\$ 37,177.09	\$ 173,636.74	\$ -	\$ 2,988.04	\$ -	\$ 10,314.98		\$ 224,116.85
6,012,665	5	6006700	G _ Ready Mix	NSP1	CY	246	0	\$ -	\$ -	\$ 83,387.02	\$ -	\$ -	\$ -		\$ 83,387.02
6,012,800	4	6006800	G _ Concrete Surface Texture	NSP1	SF	1,645	118	\$ 10,352.97	\$ 2,518.38	\$ 115.69	\$ 15,807.83	\$ -	\$ 482.88		\$ 29,277.75
6,014,000	3	6006900	I _ Century To Arrivals (Widen) - PRECAST	NSP1	SF	9,786	1,269	\$ 109,513.64	\$ 94,217.32	\$ 11,575.82	\$ 17,879.43	\$ -	\$ 6,737.45		\$ 240,023.68
6,014,600	4	6007000	I _ Structural Concrete, Bridge	NSP1	CY	36	1,269	\$ 109,513.64	\$ 94,217.32	\$ 11,575.82	\$ 17,979.43	\$ -	\$ 6,737.45		\$ 240,023.68
6,014,620	5	6007100	I _ FPS Columns	NSP1	CY	36	895	\$ 75,002.75	\$ 5,538.02	\$ 742.66	\$ 13,661.81	\$ -	\$ 175.87		\$ 95,121.11
6,014,650	5	6007200	I _ Incidentals	NSP1	CY	36	198	\$ 15,922.35	\$ 1,927.00	\$ -	\$ 2,823.60	\$ -	\$ -		\$ 20,672.95
6,014,660	5	6007300	I _ Equipment	NSP1	CY	36	176	\$ 18,588.54	\$ 86,752.30	\$ -	\$ 1,494.02	\$ -	\$ 6,561.58		\$ 113,396.44
6,014,665	5	6007400	I _ Ready Mix	NSP1	CY	36	0	\$ -	\$ -	\$ 10,833.16	\$ -	\$ -	\$ -		\$ 10,833.16
6,016,000	3	6007500	K1 _ CTA To Sepulveda Over Century	NSP1	SF	25,058	1,299	\$ 112,067.40	\$ 103,512.19	\$ 130,551.09	\$ 84,961.77	\$ -	\$ 12,125.72		\$ 423,218.17
6,016,600	4	6007600	K1 _ Structural Concrete, Bridge	NSP1	CY	241	1,091	\$ 94,046.52	\$ 96,108.19	\$ 76,605.36	\$ 63,513.07	\$ -	\$ 12,125.72		\$ 342,398.86
6,016,620	5	6007700	K1 _ FPS Columns	NSP1	CY	241	557	\$ 46,522.00	\$ 5,017.35	\$ -	\$ 54,649.66	\$ -	\$ 1,177.36		\$ 107,366.37
6,016,650	5	6007800	K1 _ Incidentals	NSP1	CY	241	358	\$ 28,935.98	\$ 2,885.00	\$ 849.00	\$ 7,369.39	\$ -	\$ -		\$ 40,039.37
6,016,660	5	6007900	K1 _ Equipment	NSP1	CY	241	176	\$ 18,588.54	\$ 88,205.84	\$ -	\$ 1,494.02	\$ -	\$ 10,948.36		\$ 119,236.76
6,016,665	5	6008000	K1 _ Ready Mix	NSP1	CY	241	0	\$ -	\$ -	\$ 75,756.36	\$ -	\$ -	\$ -		\$ 75,756.36
6,017,150	4	6008100	K1 _ Isolation Casing	NSP1	LF	30	209	\$ 18,020.88	\$ 7,404.00	\$ 53,945.73	\$ 1,448.70	\$ -	\$ -		\$ 80,819.31
6,018,000	3	6008200	K2 _ CTA To Sepulveda Over Sepulveda - CIP / PRECA	NSP1	SF	11,933	1,279	\$ 110,352.85	\$ 94,319.40	\$ 13,764.79	\$ 19,038.47	\$ -	\$ 6,766.19		\$ 244,241.70
6,018,600	4	6008300	K2 _ Structural Concrete, Bridge	NSP1	CY	40	1,279	\$ 110,352.85	\$ 94,319.40	\$ 13,764.79	\$ 19,038.47	\$ -	\$ 6,766.19		\$ 244,241.70
6,018,620	5	6008400	K2 _ FPS Columns	NSP1	CY	40	905	\$ 75,841.96	\$ 5,640.10	\$ 825.18	\$ 14,581.05	\$ -	\$ 195.41		\$ 97,083.70
6,018,650	5	6008500	K2 _ Incidentals	NSP1	CY	40	198	\$ 15,922.35	\$ 1,927.00	\$ -	\$ 2,963.40	\$ -	\$ -		\$ 20,812.75
6,018,660	5	6008600	K2 _ Equipment	NSP1	CY	40	176	\$ 18,588.54	\$ 86,752.30	\$ -	\$ 1,494.02	\$ -	\$ 6,570.78		\$ 113,405.64
6,018,665	5	6008700	K2 _ Ready Mix	NSP1	CY	40	0	\$ -	\$ -	\$ 12,939.61	\$ -	\$ -	\$ -		\$ 12,939.61
6,020,000	3	6008800	L _ Center Way Loop / Departures To Sepulveda	NSP1	SF	14,898	3,169	\$ 270,035.29	\$ 148,954.73	\$ 29,416.55	\$ 43,898.76	\$ -	\$ 13,589.89		\$ 505,896.22
6,020,800	4	6008900	L _ Structural Concrete, Bridge	NSP1	CY	88	3,169	\$ 270,035.29	\$ 148,954.73	\$ 29,416.55	\$ 43,898.76	\$ -	\$ 13,589.89		\$ 505,896.22
6,020,820	5	6009000	L _ FPS Columns	NSP1	CY	88	2,491	\$ 208,911.31	\$ 14,648.46	\$ 1,815.40	\$ 35,458.53	\$ -	\$ 429.91		\$ 261,263.61
6,020,850	5	6009100	L _ Incidentals	NSP1	CY	88	414	\$ 33,241.16	\$ 4,111.75	\$ -	\$ 6,200.20	\$ -	\$ -		\$ 43,553.11
6,020,860	5	6009200	L _ Equipment	NSP1	CY	88	264	\$ 27,882.82	\$ 130,194.52	\$ -	\$ 2,241.03	\$ -	\$ 13,159.98		\$ 173,478.35
6,020,870	5	6009300	L _ Ready Mix	NSP1	CY	88	0	\$ -	\$ -	\$ 27,601.15	\$ -	\$ -	\$ -		\$ 27,601.15
6,024,000	3	6009400	M _ Wws To Century	NSP1	SF	7,169	883	\$ 80,489.16	\$ 144,644.10	\$ 52,179.13	\$ 17,662.37	\$ 237,600.00	\$ 18,804.86		\$ 551,379.62
6,024,500	4	6009500	M _ Structural Concrete, Bridge	NSP1	CY	38	675	\$ 62,005.53	\$ 133,373.54	\$ 12,822.72	\$ 16,182.57	\$ -	\$ 5,457.42		\$ 229,841.78
6,024,520	5	6009600	M _ FPS Columns	NSP1	CY	38	305	\$ 25,577.26	\$ 2,128.52	\$ 783.92	\$ 10,129.18	\$ -	\$ 185.64		\$ 38,804.52
6,024,550	5	6009700	M _ Incidentals	NSP1	CY	38	106	\$ 8,545.45	\$ 1,050.50	\$ -	\$ 1,877.36	\$ -	\$ -		\$ 11,473.31
6,024,560	5	6009800	M _ Equipment	NSP1	CY	38	264	\$ 27,882.82	\$ 130,194.52	\$ -	\$ 4,178.03	\$ -	\$ 5,271.78		\$ 167,525.15
6,024,570	5	6009900	M _ Ready Mix	NSP1	CY	38	0	\$ -	\$ -	\$ 12,038.80	\$ -	\$ -	\$ -		\$ 12,038.80
6,025,015	4	6010000	M _ Isolation Casing	NSP1	LF	35	208	\$ 18,483.63	\$ 11,270.56	\$ 39,356.41	\$ 1,479.80	\$ 237,600.00	\$ 13,347.44		\$ 321,537.84
6,026,000	3	6010100	P _ Arrivals & Departures To Century CIP / PRECAST	NSP1	SF	21,982	3,108	\$ 267,232.39	\$ 192,128.47	\$ 30,363.44	\$ 44,170.31	\$ -	\$ 16,835.27		\$ 550,729.88
6,026,900	4	6010200	P _ Structural Concrete, Bridge	NSP1	CY	89	3,108	\$ 267,232.39	\$ 192,128.47	\$ 30,363.44	\$ 44,170.31	\$ -	\$ 16,835.27		\$ 550,729.88
6,026,920	5	6010300	P _ FPS Columns	NSP1	CY	89	2,336	\$ 196,222.08	\$ 14,477.87	\$ 1,836.03	\$ 34,657.83	\$ -	\$ 434.79		\$ 247,628.60
6,026,950	5	6010400	P _ Incidentals	NSP1	CY	89	420	\$ 33,833.22	\$ 4,146.00	\$ 339.00	\$ 6,524.44	\$ -	\$ -		\$ 44,842.66
6,026,960	5	6010500	P _ Equipment	NSP1	CY	89	352	\$ 37,177.09	\$ 173,504.60	\$ -	\$ 2,988.04	\$ -	\$ 16,400.48		\$ 230,070.21
6,026,970	5	6010600	P _ Ready Mix	NSP1	CY	89	0	\$ -	\$ -	\$ 28,188.41	\$ -	\$ -	\$ -		\$ 28,188.41
6,200,100	3	6010700	Sepulveda Blvd Pedestrian Bridge	NSP1	SF	1,547	1,411	\$ 122,989.89	\$ 138,203.57	\$ 14,387.84	\$ 18,528.74	\$ -	\$ 8,098.82		\$ 302,208.86
6,200,150	4	6010800	Structural Concrete, Bridge	NSP1	CY	45	1,411	\$ 122,989.89	\$ 138,203.57	\$ 14,387.84	\$ 18,528.74	\$ -	\$ 8,098.82		\$ 302,208.86
6,200,155	5	6010900	FPS Columns	NSP1	CY	45	845	\$ 71,022.80	\$ 5,464.62	\$ -	\$ 12,516.43	\$ -	\$ 219.84		\$ 89,223.69
6,200,170	5	6011000	Incidentals	NSP1	CY	45	302	\$ 24,084.27	\$ 2,610.50	\$ -	\$ 3,771.28	\$ -	\$ -		\$ 30,466.05
6,200,175	5	6011100	Equipment	NSP1	CY	45	264	\$ 27,882.82	\$ 130,128.45	\$ -	\$ 2,241.03	\$ -	\$ 7,878.98		\$ 168,131.28
6,200,180	5	6011200	Ready Mix	NSP1	CY	45	0	\$ -	\$ -	\$ 14,387.84	\$ -	\$ -	\$ -		\$ 14,387.84
6,200,500	3	6011300	96th Street Pedestrian Bridge	NSP1	SF	7,408	2,171	\$ 189,770.53	\$ 265,853.81	\$ 27,985.67	\$ 36,508.11	\$ -	\$ 25,368.98		\$ 545,486.90
6,200,825	4	6011400	Structural Concrete, Bridge	NSP1	CY	86	2,171	\$ 189,770.53	\$ 265,853.61	\$ 27,985.67	\$ 36,508.11	\$ -	\$ 25,368.98		\$ 545,486.90
6,200,950	5	6011500	FPS Columns	NSP1	CY	86	1,279	\$ 107,298.99	\$ 8,279.08	\$ -	\$ 26,774.40	\$ -	\$ 420.14		\$ 142,772.61
6,201,150	5	6011600	Equipment	NSP1	CY	86	440	\$ 46,471.36	\$ 253,665.03	\$ -	\$ 3,735.05	\$ -	\$ 22,783.26		\$ 326,654.70

cGMP1 TAB 4
COST SUMMARY
ATMP Roadway Improvements Project

SUBMITTAL DATE 03/25/25

BID ITEM NO.	SUMMARY GROUP	CLIENT NO	DESCRIPTION	BID PACKAGE	UOM	QTY	MAN HOURS	LABOR & BURDEN	EQUIPMENT	PERMANENT MATERIALS	CONSTRUCTION MATERIALS	SUBCONTRACTORS	OPERATED EQUIP / TRUCKING	UNIT COST	TOTAL COST
6,201,200	5	6011700	Ready Mix	NSP1	CY	86	0	\$ -	\$ -	\$ 27,985.67	\$ -	\$ -	\$ -	\$ -	\$ 27,985.67
6,201,250	5	6011800	Incidentals	NSP1	CY	88	452	\$ 36,000.18	\$ 3,909.50	\$ -	\$ 5,998.66	\$ -	\$ 2,165.58	\$ -	\$ 48,073.92
6,030,000	2	6011000	NSP2 - BRIDGE FW	NSP2	LS	1	1,925	\$ 16,937.11	\$ 81,371.99	\$ -	\$ 18,340,550.27	\$ -	\$ -	\$ -	\$ 18,577,863.37
6,000,830	5	6012000	A _ Falsework	NSP2	CF	4,289,340	827	\$ 72,595.75	\$ 29,382.57	\$ -	\$ 7,881,310.25	\$ -	\$ -	\$ -	\$ 7,983,288.57
6,002,630	5	6012100	C _ Falsework	NSP2	CF	114,853	19	\$ 1,646.71	\$ 666.49	\$ -	\$ 178,774.16	\$ -	\$ -	\$ -	\$ 181,087.36
6,006,630	5	6012200	D1 _ Falsework	NSP2	CF	578,964	156	\$ 13,692.44	\$ 5,541.90	\$ -	\$ 1,486,510.69	\$ -	\$ -	\$ -	\$ 1,505,745.03
6,004,630	5	6012300	D2 _ Falsework	NSP2	CF	1,394,352	461	\$ 40,484.71	\$ 16,385.87	\$ -	\$ 4,395,195.80	\$ -	\$ -	\$ -	\$ 4,452,066.38
6,010,630	5	6012400	F1 _ Falsework	NSP2	CF	40,175	13	\$ 1,101.87	\$ 445.97	\$ -	\$ 119,624.05	\$ -	\$ -	\$ -	\$ 121,171.89
6,012,630	5	6012500	G _ Falsework	NSP2	CF	345,852	101	\$ 8,894.27	\$ 3,599.89	\$ -	\$ 965,601.06	\$ -	\$ -	\$ -	\$ 978,095.22
6,014,630	5	6012600	I _ Falsework	NSP2	CF	195,634	38	\$ 3,354.41	\$ 1,357.68	\$ -	\$ 364,169.44	\$ -	\$ -	\$ -	\$ 368,881.53
6,016,630	5	6012700	K1 _ Falsework	NSP2	CF	373,376	36	\$ 3,162.77	\$ 1,280.10	\$ -	\$ 343,363.92	\$ -	\$ -	\$ -	\$ 347,806.79
6,018,630	5	6012800	K2 _ Falsework	NSP2	CF	246,016	44	\$ 3,888.57	\$ 1,573.87	\$ -	\$ 422,160.80	\$ -	\$ -	\$ -	\$ 427,623.24
6,020,830	5	6012900	L _ Falsework	NSP2	CF	349,600	99	\$ 8,706.22	\$ 3,523.78	\$ -	\$ 945,185.46	\$ -	\$ -	\$ -	\$ 957,415.46
6,024,530	5	6013000	M _ Falsework	NSP2	CF	186,501	40	\$ 3,526.53	\$ 1,427.34	\$ -	\$ 382,856.28	\$ -	\$ -	\$ -	\$ 387,810.13
6,026,930	5	6013100	P _ Falsework	NSP2	CF	452,946	90	\$ 7,882.86	\$ 3,190.53	\$ -	\$ 855,798.38	\$ -	\$ -	\$ -	\$ 866,871.77
6,040,000	2	6013200	NSP3 - SUBCONTRACTOR SUPPORT	NSP3	L	1	12,309	\$ 1,087,239.96	\$ 686,193.90	\$ 933,321.61	\$ 85,898.49	\$ 2,470.00	\$ 2,713,300.13	\$ -	\$ 5,508,424.09
6,040,100	3	6013300	BRIDGE FDN SUPPORT	NSP3	LS	1	9,943	\$ 867,458.55	\$ 441,838.06	\$ 925,963.58	\$ 68,414.42	\$ -	\$ 2,675,958.65	\$ -	\$ 4,979,631.24
6,000,605	4	6014000	A _ 96" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	1,791	1,560	\$ 129,759.56	\$ 34,237.59	\$ 215,622.74	\$ 10,147.40	\$ -	\$ 315,202.36	\$ -	\$ 704,969.65
6,000,615	4	6014100	A _ 108" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	562	475	\$ 38,984.96	\$ 9,165.59	\$ 78,806.28	\$ 3,030.50	\$ -	\$ 112,581.24	\$ -	\$ 242,568.57
6,000,655	4	6014200	A _ 120" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	86	99	\$ 8,076.42	\$ 1,782.43	\$ 10,423.62	\$ 627.10	\$ -	\$ 20,801.71	\$ -	\$ 41,711.31
6,000,665	4	6014300	A _ 144" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	194	111	\$ 9,192.15	\$ 2,470.86	\$ 69,320.34	\$ 716.33	\$ -	\$ 64,582.48	\$ -	\$ 146,282.16
6,006,315	4	6014400	D1 _ 96" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	300	359	\$ 29,730.28	\$ 8,283.77	\$ 69,320.34	\$ 2,314.44	\$ -	\$ 70,858.68	\$ -	\$ 180,507.51
6,004,405	4	6014600	D2 _ 96" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	1,080	1,836	\$ 172,407.86	\$ 139,914.70	\$ 80,197.46	\$ 13,817.18	\$ -	\$ 438,769.26	\$ -	\$ 845,106.46
6,004,430	4	6014700	D2 _ 120" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	270	520	\$ 49,128.20	\$ 41,157.78	\$ 31,148.12	\$ 3,942.33	\$ -	\$ 150,995.03	\$ -	\$ 276,371.46
6,004,455	4	6014800	D2 _ 144" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	450	861	\$ 81,344.63	\$ 68,047.04	\$ 75,185.12	\$ 6,527.16	\$ -	\$ 289,739.60	\$ -	\$ 520,843.55
6,012,405	4	6014900	G _ 96" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	261	185	\$ 15,374.18	\$ 4,512.73	\$ 39,611.14	\$ 1,198.25	\$ -	\$ 44,316.42	\$ -	\$ 105,012.72
6,014,355	4	6015000	I _ 72" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	248	361	\$ 29,949.15	\$ 8,930.95	\$ 29,187.51	\$ 2,330.45	\$ -	\$ 101,775.04	\$ -	\$ 172,173.10
6,016,430	4	6015100	K1 _ 120" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	180	317	\$ 30,006.16	\$ 26,040.96	\$ 20,765.41	\$ 2,408.83	\$ -	\$ 99,633.05	\$ -	\$ 176,854.41
6,016,455	4	6015200	K1 _ 144" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	180	317	\$ 30,006.16	\$ 26,040.96	\$ 30,074.05	\$ 2,408.83	\$ -	\$ 87,854.09	\$ -	\$ 176,384.09
6,018,355	4	6015300	K2 _ 72" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	254	361	\$ 29,949.15	\$ 8,930.95	\$ 29,187.51	\$ 2,330.45	\$ -	\$ 109,551.04	\$ -	\$ 179,949.10
6,020,505	4	6015400	L _ 48" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	270	301	\$ 24,844.23	\$ 8,064.77	\$ -	\$ 1,928.04	\$ -	\$ 129,364.80	\$ -	\$ 164,201.84
6,020,515	4	6015500	L _ 72" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	199	308	\$ 25,477.33	\$ 7,220.21	\$ 12,039.85	\$ 1,980.88	\$ -	\$ 95,181.00	\$ -	\$ 141,899.27
6,020,530	4	6015600	L _ 96" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	85	107	\$ 8,908.46	\$ 3,031.04	\$ 6,932.03	\$ 693.50	\$ -	\$ 44,207.64	\$ -	\$ 63,772.67
6,024,255	4	6015700	M _ 96" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	158	214	\$ 17,816.94	\$ 6,062.08	\$ 14,593.76	\$ 1,386.98	\$ -	\$ 74,511.40	\$ -	\$ 114,371.16
6,026,505	4	6015800	P _ 72" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	705	816	\$ 67,800.84	\$ 20,718.93	\$ 34,012.32	\$ 5,276.64	\$ -	\$ 292,672.84	\$ -	\$ 420,481.57
6,200,115	4	6015900	SEP_48" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	157	249	\$ 20,602.85	\$ 5,601.88	\$ 8,756.25	\$ 1,604.62	\$ -	\$ 47,606.12	\$ -	\$ 84,171.52
6,200,135	4	6016000	SEP_96" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	107	179	\$ 14,766.60	\$ 4,153.32	\$ 16,782.82	\$ 1,148.62	\$ -	\$ 38,782.00	\$ -	\$ 75,633.36
6,200,780	4	6016100	96TH_72" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	164	174	\$ 14,168.65	\$ 3,245.12	\$ 18,971.88	\$ 1,103.92	\$ -	\$ 15,668.34	\$ -	\$ 53,157.91
6,200,790	4	6016200	96TH_84" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	240	236	\$ 19,161.99	\$ 4,224.40	\$ 35,025.01	\$ 1,491.97	\$ -	\$ 31,304.48	\$ -	\$ 91,207.85
6,040,200	3	6016300	ABUT FDN SUPPORT	NSP3	LS	1	906	\$ 76,250.13	\$ 23,867.84	\$ 7,358.05	\$ 5,947.05	\$ 2,470.00	\$ 37,341.48	\$ -	\$ 153,234.55
6,040,202	4	6016400	Remove HMA	NSP3	CY	92	13	\$ 1,249.84	\$ 763.32	\$ -	\$ 100.74	\$ 2,280.00	\$ 3,028.68	\$ -	\$ 7,422.58
6,040,203	4	6016500	Remove PCC	NSP3	CY	43	13	\$ 1,249.84	\$ 702.84	\$ -	\$ 100.74	\$ 190.00	\$ 1,533.12	\$ -	\$ 3,776.54
6,040,204	4	6016600	Remove Sidewalk and Curb Ramp	NSP3	SF	253	32	\$ 2,980.83	\$ 1,662.84	\$ -	\$ 235.57	\$ -	\$ 1,495.56	\$ -	\$ 6,374.80
6,040,206	4	6016700	Remove Curb & Gutter	NSP3	LF	24	24	\$ 2,352.38	\$ 2,262.92	\$ -	\$ 187.69	\$ -	\$ 1,495.56	\$ -	\$ 6,298.55
6,000,505	4	6016800	A _ 24" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	3,017	400	\$ 33,097.48	\$ 8,675.52	\$ 3,728.08	\$ 2,573.72	\$ -	\$ 12,312.00	\$ -	\$ 60,386.80
6,006,305	4	6016900	D1 _ 24" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	846	163	\$ 13,522.69	\$ 3,815.76	\$ 1,373.50	\$ 1,052.58	\$ -	\$ 7,128.00	\$ -	\$ 26,892.53
6,004,305	4	6017000	D2 _ 24" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	960	100	\$ 8,274.38	\$ 2,168.88	\$ 882.97	\$ 643.43	\$ -	\$ 8,424.00	\$ -	\$ 20,393.66
6,012,305	4	6017100	G _ 24" CIDH Concrete Piling SUB SUPPORT	NSP3	LF	1,650	163	\$ 13,522.69	\$ 3,815.76	\$ 1,373.50	\$ 1,052.58	\$ -	\$ 1,924.56	\$ -	\$ 21,689.09
6,040,300	3	6017200	REBAR SUPPORT	NSP3	LS	1	1,460	\$ 143,533.28	\$ 220,488.00	\$ -	\$ 11,537.02	\$ -	\$ -	\$ -	\$ 375,558.30
6,001,210	4	6017300	A _ Bar Reinforcing Steel, Bridge SUB SUPPORT	NSP3	LB	3,661,030	614	\$ 59,515.06	\$ 84,144.00	\$ -	\$ 4,783.81	\$ -	\$ -	\$ -	\$ 148,442.87
6,007,010	4	6017500	D1 _ Bar Reinforcing Steel, Bridge SUB SPPORT	NSP3	LB	442,520	130	\$ 11,952.32	\$ 11,248.00	\$ -	\$ 960.78	\$ -	\$ -	\$ -	\$ 24,161.10
6,005,010	4	6017600	D2 _ Bar Reinforcing Steel, Bridge SUB SUPPORT	NSP3	LB	2,696,823	354	\$ 35,610.47	\$ 61,648.00	\$ -	\$ 2,862.26	\$ -	\$ -	\$ -	\$ 100,120.73
6,013,010	4	6017800	G _ Bar Reinforcing Steel, Bridge SUB SPUORT	NSP3	LB	423,474	122	\$ 11,107.39	\$ 9,448.00	\$ -	\$ 892.87	\$ -	\$ -	\$ -	\$ 21,448.26
6,015,010	4	6017900	I _ Bar Reinforcing Steel, Bridge SUB SUPPORT	NSP3	LB	170,976	16	\$ 1,689.87	\$ 3,600.00	\$ -	\$ 135.82	\$ -	\$ -	\$ -	\$ 5,425.69
6,017,010	4	6018000	K1 _ Bar Reinforcing Steel, Bridge SUB SUPPORT	NSP3	LB	696,472	72	\$ 7,604.41	\$ 16,200.00	\$ -	\$ 611.19	\$ -	\$ -	\$ -	\$ 24,415.60
6,019,010	4	6018100	K2 _ Bar Reinforcing Steel, Bridge SUB SPUORT	NSP3	LB	177,040	16	\$ 1,689.87	\$ 3,600.00	\$ -	\$ 135.82	\$ -	\$ -	\$ -	\$ 5,425.69
6,022,810	4	6018200	L _ Bar Reinforcing Steel, Bridge SUB SUPPORT	NSP3	LB	269,408	24	\$ 2,534.81	\$ 5,400.00	\$ -	\$ 203.73	\$ -	\$ -	\$ -	\$ 8,138.54
6,025,010	4	6018300	M _ Bar Reinforcing Steel, Bridge SUB SUPPORT	NSP3	LB	179,408	16	\$ 1,689.87	\$ 3,600.00	\$ -	\$ 135.82	\$ -	\$ -	\$ -	\$ 5,425.69

cGMP1 TAB 4
COST SUMMARY
ATMP Roadway Improvements Project

SUBMITTAL DATE 03/25/25

BID ITEM NO.	SUMMARY GROUP	CLIENT NO	DESCRIPTION	BID PACKAGE	UOM	QTY	MAN HOURS	LABOR & BURDEN	EQUIPMENT	PERMANENT MATERIALS	CONSTRUCTION MATERIALS	SUBCONTRACTORS	OPERATED EQUIP / TRUCKING	UNIT COST	TOTAL COST
6,027,410	4	6018400	P_Bar Reinforcing Steel, Bridge_SUB SUPPORT	NSP3	LB	477,824	48	\$ 5,069.60	\$ 10,800.00	\$ -	\$ 407.46	\$ -	\$ -		\$ 16,277.06
6,200,230	4	6018500	SEP_Bar Reinforcing Steel, Pedestrian Bridge_SUB S	NSP3	LB	141,000	16	\$ 1,689.87	\$ 3,600.00	\$ -	\$ 135.82	\$ -	\$ -		\$ 5,425.69
6,201,405	4	6018600	96TH_Bar Reinforcing Steel, Pedestrian Bridge_SUB	NSP3	LB	349,536	32	\$ 3,379.74	\$ 7,200.00	\$ -	\$ 271.64	\$ -	\$ -		\$ 10,851.38
6,050,000	2	6018700	CBW1 - BRIDGE FOUNDATIONS	CBW1	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 20,500,000.00	\$ -		\$ 20,500,000.00
6,200,799	4	6021200	CBW1 - BRIDGE FOUNDATIONS	0	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 20,500,000.00	\$ -		\$ 20,500,000.00
6,060,000	2	6021300	CBW2 - ABUTMENT FOUNDATIONS	CBW2	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,467,072.00	\$ -		\$ 1,467,072.00
6,012,501	4	6021800	CBW2 - ABUTMENT FOUNDATIONS	CBW2	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 1,467,072.00	\$ -		\$ 1,467,072.00
6,070,000	2	6021900	CBW4 - BAR REINFORCING STEEL	CBW4	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 10,260,000.00	\$ -		\$ 10,260,000.00
6,201,401	4	6023400	CBW4 - BAR REINFORCING STEEL, BRIDGE	CBW4	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 10,260,000.00	\$ -		\$ 10,260,000.00
6,100,000	2	6100000	CBSP1 - RETAINING WALLS	CBSP1	SF	61,900	0	\$ -	\$ -	\$ -	\$ -	\$ 34,360,000.00	\$ -		\$ 34,360,000.00
6,127,500	4	6120902	CBSP1 - RETAINING WALLS	CBSP1	LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ 34,360,000.00	\$ -		\$ 34,360,000.00
7,000,000	1	7000000	ELECTRICAL LIGHTING, ITS / COMMS		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
7,000,060	2	7000100	CBWxx - ELECTRICAL (LIGHTING / SIGNAL WORK)		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
6,000,000	1	6000000	AESTHETICS AND FINISHES		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
9,000,000	1	9000000	GENERAL CONDITIONS		LS	1	5,376	\$ 39,853,952.21	\$ 3,542,180.00	\$ -	\$ 23,650,172.73	\$ -	\$ -		\$ 67,046,304.94
9,000,060	2	9000100	INSURANCE & BOND		LS	1	0	\$ -	\$ -	\$ -	\$ 16,500,446.00	\$ -	\$ -		\$ 16,500,446.00
9,000,100	4	9000200	INSURANCE		0	1	0	\$ -	\$ -	\$ -	\$ 12,988,930.00	\$ -	\$ -		\$ 12,988,930.00
9,000,200	4	9000300	BOND		JV	1	0	\$ -	\$ -	\$ -	\$ 3,519,516.00	\$ -	\$ -		\$ 3,519,516.00
9,100,000	2	9100000	STAFF / CRAFT RELATED INDIRECT COST		LS	1	5,376	\$ 39,853,952.21	\$ 3,542,180.00	\$ -	\$ 7,141,726.73	\$ -	\$ -		\$ 50,537,859.94
9,200,000	4	9100100	STAFF RELATED		LS	1	0	\$ 39,220,364.25	\$ 3,397,028.00	\$ -	\$ 2,032,975.00	\$ -	\$ -		\$ 44,650,367.25
9,300,000	4	9100200	CRAFT RELATED		LS	1	5,376	\$ 633,587.96	\$ 145,152.00	\$ -	\$ 4,397,979.23	\$ -	\$ -		\$ 5,176,719.19
9,400,000	4	9100300	OFFICE & YARD		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
9,500,000	4	9100400	OTHER INDIRECT COST		LS	1	0	\$ -	\$ -	\$ -	\$ 345,000.00	\$ -	\$ -		\$ 345,000.00
9,600,000	4	9100500	TAXES		LS	1	0	\$ -	\$ -	\$ -	\$ 365,772.50	\$ -	\$ -		\$ 365,772.50
9,700,000	4	9100600	EQUIPMENT		LS	1	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
9,900,000	1	9900000	DESIGN-BUILDER CONTINGENCY		LS	1	0	\$ -	\$ -	\$ -	\$ 63,037,655.00	\$ -	\$ -		\$ 63,037,655.00
9,900,100	1	9900100	SUBCONTRACTS BUYOUT FUND		LS	1	0	\$ -	\$ -	\$ -	\$ 7,600,000.00	\$ -	\$ -		\$ 7,600,000.00
9,910,000	1	9910000	ESCALATIONS		LS	1	0	\$ -	\$ -	\$ -	\$ 9,823,211.00	\$ -	\$ -		\$ 9,823,211.00
9,920,000	1	9920000	GMP NEGOTIATIONS		LS	1	0	\$ -	\$ -	\$ -	\$ (10,476,204.00)	\$ -	\$ -		\$ (10,476,204.00)
	1		TOTALS				140,262	\$ 58,561,937.44	\$ 14,466,443.89	\$ 2,745,045.35	\$ 118,637,137.08	\$ 146,015,561.08	\$ 5,798,530.22		\$ 346,224,655.06

BidItem	Client Bid #	Summary Group 1	Description	Units	Bid Quantity	Man Hours	Labor	Burden	Company Equipment	Eq Oper Expenses	Outside Equipment	Permanent Material	Construction Material	Subcontractors	Op Rentals	OH & Fees	Direct Total	Subdivided	Package Alternate	Parent
1000000	1000000		1 GENERAL REQUIREMENTS	LS	1	76023	10591019.84	2963119.27	4140243.78	2173494.94	19576.96	121265.65	2721346.65	43280538.03	2604128.12	2751460.96	71366214.1	Y		
1000100	1000100		2 MOBILIZATION AND DEMOBILIZATION	LS	1	5248	257576.98	228271.89	829567.59	953391.35	0	0	205042.67	0	0	-152189.6	2321650.86	Y		1000000
1000110	1000200		4 Equipment	LS	1	5248	257576.96	228271.89	829567.59	953391.35	0	0	205042.67	0	0	-152189.6	2321650.86	N		1000100
1000200	1000300		2 PROJECT MANAGEMENT (PR-02)	MO	28	0	2476020.46	0	143503.5	62366.5	0	0	0	0	0	0	2681890.46	Y		1000000
1000300	1000400		4 Construction Engineering Support	LS	1	0	2476020.46	0	143503.5	62366.5	0	0	0	0	0	0	2681890.46	N		1000200
1000400	1000500		4 Preconstruction - Ph 2	LS	1	0	0	0	0	0	0	0	0	0	0	0	0	N		1000200
1000500	1000600		2 MAINTENANCE OF TRAFFIC (PR-03)	MO	28	18798	826209.42	881626.03	1188177.33	367351.31	9449.44	0	1146392.9	17947161.96	65825.56	0	22323196.95	Y		1000000
1000600	1000700		4 Temporary Crash Cushion Module	EA	99	276	11941.22	9990.49	5683.2	2412.8	0	0	35196.27	0	15009.12	0	80233.1	N		1000500
1000700	1000800		4 Alternative Temporary Crash Cushions	EA	11	333	15374.11	12659.26	8143.92	4231.2	0	0	89013.29	0	8145.76	0	137567.54	N		1000500
1000800	1000900		4 Traffic Control Systems	LS	1	16532	726497.87	598859.15	1143849.17	343716.91	0	0	171807.74	6628468.64	0	0	12614199.48	N		1000500
1000900	1001000		4 Flashing Arrow Signs	EA	6	0	0	0	0	0	0	0	62492.23	0	0	0	62492.23	N		1000500
1001000	1001200		4 Type III Barricades	EA	48	0	0	0	0	0	0	0	6924.24	0	0	0	6924.24	N		1000500
1001010	1001300		4 Channelizer (surface Mounted)	EA	46	0	0	0	0	0	0	0	3525.9	0	0	0	3525.9	N		1000500
1001015	1001400		4 Portable Radar Speed Feedback Sign System	EA	2	0	0	0	0	0	0	0	44100.31	0	0	0	44100.31	N		1000500
1001100	1001500		4 Temporary Barrier System (Type K)	LF	9780	1557	72396.22	59119.13	30501.04	16990.4	9449.44	0	371764.1	0	42671.68	0	602892.01	N		1000500
1001200	1001700		4 Portable Changeable Message Sign	EA	11	0	0	0	0	0	0	0	361586.82	0	0	0	361586.82	N		1000500
1001300	1001800		4 Flagging	MO	16	0	0	0	0	0	0	0	0	4468275.2	0	0	4468275.2	N		1000800
1001305	1001900		4 Construction Area Signs	LS	1	0	0	0	0	0	0	0	0	300000	0	0	300000	N		1000500
1001306	1002000		4 Relocate Roadside Sign	EA	3	0	0	0	0	0	0	0	0	981	0	0	981	N		1000500
1001310	1002100		4 Temporary Pavement Marking (Paint)	SF	604	0	0	0	0	0	0	0	0	2536.8	0	0	2536.8	N		1000600
1001315	1002200		4 Temporary Traffic Stripe (Paint)	LF	29714	0	0	0	0	0	0	0	0	31199.7	0	0	31199.7	N		1000600
1001325	1002300		4 Temporary Lighting & Signaling	LS	1	0	0	0	0	0	0	0	0	1293649.73	0	0	1293649.73	N		1000500
1001330	1002400		4 Temporary Signage	LS	1	0	0	0	0	0	0	0	0	1000000	0	0	1000000	N		1000500
1001335	1002500		4 Temporary Fence	LF	25175	0	0	0	0	0	0	0	0	942770.89	0	0	942770.89	N		1000500
1001400	1002600		4 Noise Monitoring	LS	1	0	0	0	0	0	0	0	0	279280	0	0	279280	N		1000500
1001500	1002700		2 PROGRESS SCHEDULE (PR-04)	LS	1	0	942033.68	0	65801.6	28510.4	0	0	0	0	0	0	1036145.68	Y		1000000
1001600	1002800		4 Project Scheduler	MO	28	0	942033.68	0	65601.6	28510.4	0	0	0	0	0	0	1036145.68	N		1001500
1001700	1002900		4 Baseline Schedule	LS	1	0	0	0	0	0	0	0	0	0	0	0	0	N		1001500
1001800	1003000		4 Schedule Updates	MO	28	0	0	0	0	0	0	0	0	0	0	0	0	N		1001500
1001900	1003100		4 As-Built Schedule	LS	1	0	0	0	0	0	0	0	0	0	0	0	0	N		1001500
1002000	1003200		2 ALLOWANCES (PR-05)	LS	1	0	0	0	0	0	0	0	0	0	0	0	0	Y		1000000
1003100	1003300		2 SITE FIELD OFFICE (PR-06)	MO	28	29086	15007319.28	1181451.08	1181672.26	434423.89	10127.52	70886.73	172895.74	0	35340.3	2863670.56	7450987.36	Y		1000000
1003200	1003302		4 Flow / Pressure Test Existing Fire Hydrants	LS	1	0	0	0	0	0	0	0	0	0	0	0	0	N		1003100
1003300	1003400		4 Field Yard Facilities	MO	16	0	0	0	0	0	0	0	0	0	0	0	0	N		1003100
1003325	1003500		4 Field Office PMO - SFV & LAWA	MO	16	0	0	0	0	0	0	0	0	0	0	0	0	N		1003100
1003400	1003700		4 Foreman Trailer	MO	16	0	0	0	0	0	0	0	0	0	0	502200	502200	N		1003100
1003410	1003800		4 Graffiti Removal	MO	16	7580	342632.76	280485.36	110643.46	50743.39	0	0	48274.21	0	0	0	832779.18	N		1003100
1003450	1003900		4 Office & Yard	LS	1	21538	1158086.52	906965.72	1071028.8	363689.5	10127.52	70886.73	124421.53	0	35340.3	2361470.56	6116008.18	N		1003100
1003500	1004000		2 UTILITIES (PR-07)	LS	1	0	0	0	0	0	0	0	0	1726540	0	0	1726540	Y	CBSP2	1000000
1003600	1004100		4 CBSP2 - POT-HOLING	LS	1	0	0	0	0	0	0	0	0	1726540	0	0	1726540	N	CBSP2	1003500
1004000	1004200		2 REI (PR-08)	LS	1	0	0	0	0	0	0	0	0	0	0	0	0	N		1000000
1004100	1004300		2 SUBMITTALS (PR-09)	LS	1	0	0	0	0	0	0	0	0	0	0	0	0	N		1000000
1004200	1004400		2 PRODUCT, MATERIAL AND EQUIPMENT SUBSTITUTIONS (PR-10)	LS	1	0	0	0	0	0	0	0	0	0	0	0	0	N		1000000
1004300	1004500		2 DESIGN MANAGEMENT (PR-11)	LS	1	0	0	0	0	0	0	0	0	8606417	0	0	8606417	Y		1000000
1004310	1004600		4 DSDCS	LS	1	0	0	0	0	0	0	0	0	8606417	0	0	8606417	N		1004300
1004400	1004700		2 THIRD PARTY COORDINATION (PR-12)	LS	1	0	0	0	0	0	0	0	0	1832477.07	0	0	1832477.07	Y		1000000
1004450	1004800		4 AHI Support	LS	1	0	0	0	0	0	0	0	0	1832477.07	0	0	1832477.07	N		1004400
1004500	1004900		2 QUALITY ASSURANCE / QUALITY CONTROL (PR-13 / 14)	LS	1	0	0	0	0	0	0	0	0	10205126	0	0	10205126	Y		1000000
1005000	1005000		4 QC	LS	1	0	0	0	0	0	0	0	0	10205126	0	0	10205126	N		1004500
1005200	1005100		2 SAFETY (PR-15)	LS	1	0	2735164.82	0	217521.55	96895.45	0	0	0	0	0	0	3051581.82	Y		1000000
1005250	1005200		4 Safety Management	LS	1	0	2735164.82	0	217521.55	96895.45	0	0	0	0	0	0	3051581.82	N		1005200
1005300	1005300		2 CONSTRUCTION SURVEY (PR-16)	LS	1	2688	168027.52	121151.06	34137.6	27685.4	0	0	22264.81	2125060	0	0	2488327.36	Y		1000000
1005400	1005302		4 Replace / Reset Survey Monuments	EA	10	0	0	0	0	0	0	0	0	0	0	0	0	N		1005300
1005500	1005304		4 Pre / Post Construction Survey Tie	LS	1	0	0	0	0	0	0	0	0	135000	0	0	135000	N		1005300
1005700	1005306		4 Pre / Post Survey For Curb Ramps	EA	13	0	0	0	0	0	0	0	0	0	0	0	0	N		1005300
1005600	1005400		4 Construction Survey	LS	1	2688	158027.52	121151.06	34137.6	27685.4	0	0	22264.81	1990060	0	0	2353327.39	N		1005300
1006100	1005500		2 PORTABLE BATCH PLANT & CRUSHER (PR-17)	LS	1	660	40058.8	30664.86	62513.76	43617.92	0	0	5642.96	0	133507.8	0	816007.1	N		1000000
1006200	1005600		2 ENVIRONMENTAL MANAGEMENT (PR-18)	MO	28	14135	644016.17	527202.58	324879.89	109964.32	0	50378.92	1127963.68	435400	2369453.46	40000	5639259.23	Y		1000000
1006300	1005700		4 Develop Water	LS	1	160	8272	6526.3	109003.46	6428	0	44002.24	418267.46	0	0	0	591496.46	N		1006200
1006400	1005800		4 Job Site Management	LS	1	8589	387353.82	317799.68	116821.06	54399.79	0	0	96884.21	120000	0	40000	1133228.58	N		1006200
1006500	1005900		4 Prepare Storm Water Pollution Prevention Plan	LS	1	0	0	0	0	0	0	0	10000	0	0	0	10000	N		1006200
1006600	1006000		4 Rain Event Action Plan - Sub	EA	24	0	0	0	0	0	0	0	12000	0	0	0	12000	N		1006200
1006700	1006100		4 Storm Water Sampling and Analysis (Day)	EA	12	0	0	0	0	0	0	0	12000	0	0	0	12000	N		1006200
1006800	1006200		4 Storm Annual Reports	EA	1	0	0	0	0	0	0	0	1000	0	0	0	1000	N		1006200
1006900	1006300		4 Temporary Erosion Control, Hydraulic Mulch, Di Pro	LS	1	4818	214250.82	177410.17	67811.12	33752.67	0	0	618002.24	250400	63597.6	0	1425224.72	Y		1006200
1006910	1006400		5 Temporary Hydraulic Mulch	SQYD	20000	0	0	0	0	0	0	0	0	16000	0	0	16000	N		1006800
1006820	1006500		5 Temporary Check Dam	LF	262	264.25	11912.74	9844.65	3897.55	1605.34	0	0	2839.97	0	0	0	30060.25	N		1006900
1006930	1006600		5 Temporary Drainage Inlet Protection	EA	86	610	26666.8	22117.75	4622.4	2924.8	0	0	12411.14	0	1944	0	70589.89	N		1006900
1006940	1006700		5 Temporary Fiber Roll	LF	38378	2235.5	96952.7	80966.13	15768.6	9649.2	0	0	69598.66	0	46360	0	318314.26	N		1006900
1006																				

2000250	2000300	2 CBSP3 - CIVIL / STRUCTURE DEMO	LS	1	0	0	0	0	0	0	0	0	0	0	2942355	0	0	2942355	Y	CBSP3	2000000
2004320	2004800	4 CBSP3 - CIVIL / STRUCTURE DEMO	LS	1	0	0	0	0	0	0	0	0	0	0	2942355	0	0	2942355	N	CBSP3	2000250
2004375	2004900	2 CBW5 - BUILDING DEMO	LS	1	0	0	0	0	0	0	0	0	0	0	600000	0	0	600000	Y	CBW5	2000000
2004400	2005000	4 Remove Miscellaneous Structures	LS	1	0	0	0	0	0	0	0	0	0	0	600000	0	0	600000	N	CBW5	2004375
3000000	3000100	1 UNDERGROUND	LS	1	0	0	0	0	0	0	0	0	0	0	29679840.05	0	0	29679840.05	Y		
3000010	3000200	2 CBW7 - WATERLINES	LS	1	0	0	0	0	0	0	0	0	0	0	1872484.05	0	0	1872484.05	Y	CBW7	3000000
3000035	3002100	3 WATERLINES	LS	1	0	0	0	0	0	0	0	0	0	0	1872484.05	0	0	1872484.05	Y	CBW7	3000010
3000036	3002200	4 CBW7 - WATERLINES	LS	1	0	0	0	0	0	0	0	0	0	0	1872484.05	0	0	1872484.05	N	CBW7	3000035
3000100	3002300	2 CBW6 - ELECTRICAL & COMM DUCTBANK	LS	1	0	0	0	0	0	0	0	0	0	0	22887000	0	0	22887000	Y	CBW6	3000000
3000545	3008500	3 DRY UTILITIES	LS	1	0	0	0	0	0	0	0	0	0	0	22887000	0	0	22887000	Y	CBW6	3000100
3000546	3008600	4 CBW6 - DRY UTILITIES	LS	1	0	0	0	0	0	0	0	0	0	0	22887000	0	0	22887000	N	CBW6	3000545
3000600	3006700	2 CBSP5 - STORMDRAIN	LS	1	0	0	0	0	0	0	0	0	0	0	3255163	0	0	3255163	Y	CBSP5	3000000
3003845	3009100	4 CBSP5 - STORM DRAIN	LS	1	0	0	0	0	0	0	0	0	0	0	3255163	0	0	3255163	N	CBSP5	3000600
3003850	3009200	2 CBSP4 - REINFORCED BOX CULVERT	LS	1	0	0	0	0	0	0	0	0	0	0	1665193	0	0	1665193	Y	CBSP4	3000000
3003955	3009800	4 CBSP4 - REINFORCED BOX CULVERT	LS	1	0	0	0	0	0	0	0	0	0	0	1665193	0	0	1665193	N	CBSP4	3003850
4000000	4000000	1 EARTHWORK / PAVING	LS	1	0	0	0	0	0	0	0	0	0	0	2471386	0	0	2471386	Y		
4000010	4000100	2 CBSP6 - EARTHWORK / GRADING	LS	1	0	0	0	0	0	0	0	0	0	0	1162141	0	0	1162141	Y	CBSP6	4000000
4001217	4001500	3 CBSP6 - EARTHWORK / GRADING	LS	1	0	0	0	0	0	0	0	0	0	0	1162141	0	0	1162141	N	CBSP6	4000010
4001218	4001600	2 CBW8 - ASPHALT PAVING	LS	1	0	0	0	0	0	0	0	0	0	0	1309245	0	0	1309245	Y	CBW8	4000000
4001230	4001800	4 HMA (Temp Detour Paving)	LS	1	0	0	0	0	0	0	0	0	0	0	1309245	0	0	1309245	N	CBW8	4001218
6000000	6000000	1 STRUCTURES	LS	1	58862.99	2913153.82	2240692.3	2075993.3	1284301.29	1230753.72	2623779.7	19518539.74	66923142	3194402.1	10595	102015693	Y				
6000100	6000100	2 NSP1 - ABUTMENTS & COLUMNS	SF	385589	44628.76	2205089.96	1692579.09	997904	1614397.62	997904	1690458.09	1092090.98	333600	481101.97	10535	11342233.51	Y	NSP1	6000000		
6000200	6000200	3 A_Sepulveda / 98th / Jetway / Century	SF	158647	15708.23	773998.75	597237.33	528589.91	327755	385359.68	758629.73	384549.45	96000	218628.01	0	4077047.87	Y	NSP1	6000100		
6000300	6000300	4 A_Structure Excavation (Bridge)	CY	782	435	22859.73	18075.4	17270.02	10125.31	399.36	0	3340.76	0	74027.94	0	146098.52	N	NSP1	6000200		
6000350	6000400	4 A_Shoring	SF	160	0	0	0	0	0	0	0	0	0	0	96000	0	0	96000	N	NSP1	6000300
6000400	6000500	4 A_Structure Backfill (Bridge)	CY	571	684	37970.66	29238.74	22733.96	14591.42	14755.2	42615.79	5548.31	0	18848.16	0	186302.24	N	NSP1	6000400		
6000710	6000600	4 A_Structural Concrete, Bridge Footing	CY	265	727.75	33828.78	26495.57	6300.85	2912.2	0	83390.72	8755.29	0	8151.02	0	169844.43	Y	NSP1	6000700		
6000720	6000700	5 A_FPS Footings	CY	265	626	29416.72	22846.69	2397.05	1480.3	0	0	6237.03	0	0	0	62377.79	N	NSP1	6000710		
6000730	6000800	5 A_Incidentals	CY	266	99.75	4412.06	3648.88	843.6	511.4	0	0	2526.26	0	0	0	11944.2	N	NSP1	6000720		
6000740	6000900	5 A_Equipment	CY	265	0	0	0	3080.2	920.5	0	0	0	0	8151.02	0	12131.72	N	NSP1	6000730		
6000750	6001000	5 A_Ready Mix	CY	266	0	0	0	0	0	0	0	0	0	0	0	83390.72	N	NSP1	6000740		
6000800	6001100	4 A_Structural Concrete, Bridge	CY	1203	12836.58	624674.56	478052.57	460288.96	286908.55	371205.12	474868.72	324813.75	0	100907.88	0	3121220.21	Y	NSP1	6000800		
6000810	6001200	5 A_FPS Abutments & Wing Walls	CY	363	2694.5	131615.43	97735.43	8227.25	4854.1	0	13593.85	39905.13	0	0	0	295931.7	N	NSP1	6000810		
6000820	6001300	5 A_FPS Columns	CY	640	5621.08	267883.77	203643.96	2117.07	14374.45	0	18408.85	216390.58	0	4103.66	0	747922.34	N	NSP1	6000820		
6000850	6001400	5 A_Incidentals	CY	1203	2209	97927.36	80557.76	13104	7684	0	2580	50289.82	0	0	0	252462.94	N	NSP1	6000850		
6000860	6001500	5 A_Equipment	CY	1203	2112	127248	95814.52	415840.64	259796	371205.12	0	17928.22	0	96804.22	0	1384636.72	N	NSP1	6000860		
6000865	6001600	5 A_Ready Mix	CY	1203	0	0	0	0	0	0	440086.51	0	0	0	0	440086.51	N	NSP1	6000865		
6001000	6001700	4 A_Concrete Surface Texture	SF	3744	192.9	9601.91	7178.2	3051.72	1291.92	0	263	35441.95	0	1099.04	0	58138.04	N	NSP1	6001000		
6001350	6001800	4 A_Isolation Casing	LF	74	1052	49953.11	36196.75	19034.4	11925.6	0	0	157691.2	0	15593.97	0	299444.43	N	NSP1	6001350		
6002000	6001900	3 C_Jetway To Century / 98th St.	SF	4500	0	0	0	0	0	0	0	0	0	0	0	0	0	Y	NSP1	6002000	
6006000	6002000	3 D1_98th To Sepulveda / Arrivals	SF	24319	3992.73	205646.19	156850.19	257120.21	161249	217899.04	143395.67	95248.63	0	47772.84	0	1285161.77	Y	NSP1	6006000		
6006100	6002100	4 D1_Structure Excavation (Bridge)	CY	280	69	3498.15	2783.68	1742.16	1075.8	133.12	0	532.87	0	0	0	32309.58	N	NSP1	6006100		
6006200	6002300	4 D1_Structure Backfill (Bridge)	CY	208	57	3164.22	2436.56	1894.5	1215.95	1229.6	15523.79	550.36	0	1570.68	0	27585.66	N	NSP1	6006200		
6006550	6002400	4 D1_Structural Concrete, Bridge Footing	CY	109	254.75	11790.48	9285.14	3880.33	1640.3	0	34354.63	3410.12	0	2766.14	0	67127.14	Y	NSP1	6006550		
6006560	6002500	5 D1_FPS Footings	CY	109	212	9694.41	7718.89	832.25	557.1	0	0	2251.46	0	0	0	21254.11	N	NSP1	6006560		
6006570	6002600	5 D1_Incidentals	CY	109	42.75	1696.07	1565.25	340.8	206.2	0	0	1158.66	0	0	0	5167.98	N	NSP1	6006570		
6006580	6002700	5 D1_Equipment	CY	109	0	0	0	2707.28	877	0	0	0	0	0	0	6350.42	N	NSP1	6006580		
6006590	6002800	5 D1_Ready Mix	CY	109	0	0	0	0	0	0	0	0	0	0	0	34354.63	N	NSP1	6006590		
6006600	6002900	4 D1_Structural Concrete, Bridge	CY	247	3547.17	183898.65	139931.73	248569.7	156880.3	216536.32	0	76855.35	0	20513.55	0	1138312.13	Y	NSP1	6006600		
6006610	6003000	5 D1_FPS Abutments & Wing Walls	CY	147	998.5	48251.8	36176.91	2003.8	0	0	8216.06	30408.46	0	0	0	128271.94	N	NSP1	6006610		
6006620	6003100	5 D1_FPS Columns	CY	100	902.42	42958.95	32682.65	3643.69	2295.15	0	2062.96	27320.18	0	489.53	0	111452.31	N	NSP1	6006620		
6006650	6003200	5 D1_Incidentals	CY	247	414.25	18459.9	15180.36	2391.9	1434.85	0	1068	10368.58	0	0	0	48903.59	N	NSP1	6006650		
6006660	6003300	5 D1_Equipment	CY	247	1232	74228	55891.81	239319	151145.5	216536.32	0	10458.13	0	20025.02	0	767604.78	N	NSP1	6006660		
6006665	6003400	5 D1_Ready Mix	CY	247	0	0	0	0	0	0	82079.51	0	0	0	0	82079.51	N	NSP1	6006665		
6006800	6003500	4 D1_Concrete Surface Texture	SF	1290	54.81	3294.69	2413.08	1033.52	436.65	0	90.72	12189.93	0	378.67	0	19847.26	N	NSP1	6006800		
6004000	6003600	3 D2_Jetway To 98th	SF	88237	7442.9	382694.5	280254.93	239502.08	147819.78	184153.12	326929.91	263995.38	0	63250.26	9000	1877399.96	Y	NSP1	6004000		
6004100	6003700	4 D2_Structure Excavation (Bridge)	CY	282	69	3488.15	2783.68	1742.16	1075.8	133.12	0	532.87	0	20599.8	0	30355.58	N	NSP1	6004100		
6004200	6003900	4 D2_Structure Backfill (Bridge)	CY	188	57	3164.22	2436.56	1894.5	1215.95	1229.6	14093.12	511.76	0	1570.68	0	29054.39	N	NSP1	6004200		
6004550	6004000	4 D2_Structural Concrete, Bridge Footing	CY	62	222.25	10331.45	8132.89	2501.29	1050.95	0	19026.34	2536.41	0	2556.14	0	46235.47	Y	NSP1	6004550		
6004560	6004100	5 D2_FPS Footings	CY	62	169.25	7949.06	6177.52	630.33	408.35	0	0	1807.67	0	0	0	16770.93	N	NSP1	6004560		
6004570	6004200	5 D2_Incidentals	CY	62	53	2382.39	1955.37	411.6	247.4	0	0	928.74	0	0	0	5925.5	N	NSP1	6004570		
6004580	6004300	5 D2_Equipment	CY	62	0	0	0	1459.36	397.2	0	0	0	0	0	0	4512.7	N	NSP1	6004580		
6004590	6004400	5 D2_Ready Mix	CY	62	0	0	0	0	0	0	0	0	0	0	0	19026.34	N	NSP1	6004590		
6004600	6004500	4 D2_Structural Concrete, Bridge	CY	868	7028.52	342336.22	264436.89	232297.64	143825.11	182790.4	293774.21	247231.15	0	38013.86	9000	1753705.18	Y	NSP1	6004600		
6004610	6004600	5 D2_FPS Abutments & Wing																			

6018000	6008200	3 K2_CTA To Sepulveda Over Sepulveda - C/P / PRECA	SF	11933	1278.54	82408.58	47944.27	38889.77	24495.87	30933.76	13764.78	19038.47	0	6756.19	0	244241.7	Y	NSP1	6000100
6018600	6008300	4 K2_Structural Concrete, Bridge	CY	40	1278.54	82408.58	47944.27	38889.77	24495.87	30933.76	13764.78	19038.47	0	6756.19	0	244241.7	Y	NSP1	6018000
6018620	6008400	5 K2_FPS Columns	CY	40	904.54	43111.05	32730.91	3466.53	2173.57	0	825.18	14581.05	0	195.41	0	97083.7	N	NSP1	6018600
6018650	6008500	5 K2_Incidentals	CY	40	198	8693.53	7228.82	1201.2	725.8	0	0	2963.4	0	0	0	20812.75	N	NSP1	6018600
6018690	6008600	5 K2_Equipment	CY	40	176	10604	7984.54	34222.04	21596.5	30933.76	0	1494.02	0	6570.78	0	113405.64	N	NSP1	6018600
6018695	6008700	5 K2_Ready Mix	CY	40	0	0	0	0	0	0	12939.61	0	0	0	0	12939.61	N	NSP1	6018600
6020000	6008800	3 L_Center Way Loop / Departures To Sepulveda	SF	14899	3169.12	152889.33	117145.96	63037.54	39516.55	46400.64	29415.55	43899.76	0	13589.89	0	505896.22	Y	NSP1	6000100
6020800	6008900	4 L_Structural Concrete, Bridge	CY	88	3169.12	152889.33	117145.96	63037.54	39516.55	46400.64	29415.55	43899.76	0	13589.89	0	505896.22	Y	NSP1	6020000
6020820	6009000	5 L_FPS Columns	CY	88	2491.12	118836.06	90075.25	9084.56	5963.9	0	1815.4	35458.59	0	429.91	0	261263.61	N	NSP1	6020800
6020850	6009100	5 L_Incidentals	CY	88	414	18147.27	15093.89	2561.1	1550.65	0	0	5200.2	0	0	0	43553.11	N	NSP1	6020800
6020860	6009200	5 L_Equipment	CY	88	284	15906	11976.82	51391.88	32402	46400.64	0	2241.03	0	13159.98	0	173478.36	N	NSP1	6020800
6020970	6009300	5 L_Ready Mix	CY	88	0	0	0	0	0	0	27601.15	0	0	0	0	27601.15	N	NSP1	6020800
6024000	6009400	3 M_Wws To Century	SF	7169	883.01	45608.82	34880.34	90538.58	37704.88	46400.64	52179.13	15727.37	237600	18804.86	1935	551379.62	Y	NSP1	6000100
6024500	6009500	4 M_Structural Concrete, Bridge	CY	38	675.01	35105.02	26889.71	53334.92	33637.98	46400.64	52179.13	14247.57	0	5457.42	1935	229841.78	Y	NSP1	6024000
6024520	6009600	5 M_FPS Columns	CY	38	304.76	14532.31	11044.55	1298.44	840.08	0	783.92	10128.18	0	185.64	0	38804.52	N	NSP1	6024500
6024550	6009700	5 M_Incidentals	CY	38	105.25	4667.51	3877.94	654.8	395.9	0	1877.36	0	0	0	0	11473.31	N	NSP1	6024500
6024560	6009800	5 M_Equipment	CY	38	264	15906	11976.82	51391.88	32402	46400.64	0	2241.03	0	5271.78	1935	167525.15	N	NSP1	6024500
6024570	6009900	5 M_Ready Mix	CY	38	0	0	0	0	0	0	12038.8	0	0	0	0	12038.8	N	NSP1	6024500
6025015	6010000	4 M_Isolation Casing	LF	35	208	10509	7980.63	7203.66	4096.9	0	39396.41	1479.8	237600	13347.44	0	321537.84	N	NSP1	6024000
6026000	6010100	3 P_Arrivals & Departures To Century C/P / PRECAST	SF	21962	3108.15	151359.96	115872.41	79982.94	50278.01	61867.52	30363.44	44170.31	0	16835.27	0	550729.86	Y	NSP1	6000100
6026900	6010200	4 P_Structural Concrete, Bridge	CY	89	3108.15	151359.96	115872.41	79982.94	50278.01	61867.52	30363.44	44170.31	0	16835.27	0	550729.86	Y	NSP1	6026000
6026920	6010300	5 P_FPS Columns	CY	89	2335.71	111643.39	84578.89	8955.86	5522.01	0	1836.03	34657.83	0	434.79	0	247628.6	N	NSP1	6026900
6026950	6010400	5 P_Incidentals	CY	89	420.44	18508.59	15324.63	2583	1553	0	339	6524.44	0	0	0	44842.66	N	NSP1	6026900
6026960	6010500	5 P_Equipment	CY	89	352	21208	15969.09	68444.08	43193	61867.52	0	2998.04	0	16400.48	0	230070.21	N	NSP1	6026900
6026970	6010600	5 P_Ready Mix	CY	89	0	0	0	0	0	0	28188.41	0	0	0	0	28188.41	N	NSP1	6026900
6200100	6010700	3 Sepulveda Blvd Pedestrian Bridge	SF	1547	1411.12	69443.05	53546.84	56272.22	35530.71	46400.64	14387.54	18528.74	0	8098.82	0	302208.86	Y	NSP1	6000100
6200150	6010800	4 Structural Concrete, Bridge	CY	45	1411.12	69443.05	53546.84	56272.22	35530.71	46400.64	14387.54	18528.74	0	8098.82	0	302208.86	Y	NSP1	6200100
6200155	6010900	5 FPS Columns	CY	45	845.11	40424.17	30598.63	3314.36	2150.26	0	0	12515.43	0	219.84	0	69223.69	N	NSP1	6200150
6200170	6011000	5 Incidentals	CY	45	302.01	13112.88	10971.39	1624.8	985.7	0	0	3771.28	0	0	0	30466.05	N	NSP1	6200150
6200175	6011100	5 Equipment	CY	45	264	15906	11976.82	51333.06	32394.75	46400.64	0	2241.03	0	7878.98	0	158131.28	N	NSP1	6200150
6200180	6011200	5 Ready Mix	CY	45	0	0	0	0	0	0	14387.84	0	0	0	0	14387.84	N	NSP1	6200150
6200500	6011300	3 96th Street Pedestrian Bridge	SF	7408	2170.57	107113.24	82657.29	120452.25	68066.96	77334.4	27985.67	38508.11	0	25368.98	0	545486.9	Y	NSP1	6000100
6200825	6011400	4 Structural Concrete, Bridge	CY	86	2170.57	107113.24	82657.29	120452.25	68066.96	77334.4	27985.67	38508.11	0	25368.98	0	545486.9	Y	NSP1	6200500
6200950	6011500	5 FPS Columns	CY	85	9999	1279.01	61003.49	46295.5	3242.21	0	0	26774.4	0	420.14	0	142772.61	N	NSP1	6200950
6201150	6011600	5 Equipment	CY	85	9999	440	26510	19961.36	112962.38	77334.4	0	3735.06	0	22783.26	0	328054.7	N	NSP1	6200950
6201200	6011700	5 Ready Mix	CY	85	9999	0	0	0	0	0	27985.67	0	0	0	0	27985.67	N	NSP1	6200950
6201250	6011800	5 Incidentals	CY	85	9999	451.56	19599.75	16400.43	2433	1476.5	0	5998.66	0	2165.58	0	48073.92	N	NSP1	6200950
6030000	6011900	2 NSP2 - BRIDGE FW	LS	1	1924.69	98387.94	70549.17	48971.99	19404	0	0	18340550.27	0	0	0	18577863.37	Y	NSP2	6000000
6000830	6012000	5 A_Falsework	CF	4269340	827.21	42279.32	30316.43	21044.27	8338.3	0	0	7881310.25	0	0	0	7983288.57	N	NSP2	6030000
6002630	6012100	5 C_Falsework	CF	114853	18.76	959.03	687.68	477.35	189.14	0	0	178774.18	0	0	0	181067.36	N	NSP2	6030000
6006630	6012200	5 D1_Falsework	CF	578964	156.02	7974.39	5718.05	3969.2	1572.7	0	0	1486510.69	0	0	0	1505745.03	N	NSP2	6030000
6004630	6012300	5 D2_Falsework	CF	1394352	461.31	23578.05	16906.66	11735.63	4650.04	0	0	4395195.8	0	0	0	4452066.38	N	NSP2	6030000
6010930	6012400	5 F1_Falsework	CF	40175	12.56	641.72	460.15	319.41	126.56	0	0	119524.05	0	0	0	121171.89	N	NSP2	6030000
6012630	6012500	5 G_Falsework	CF	345852	101.35	5175.97	3714.3	2578.97	1021.59	0	0	965801.06	0	0	0	978095.22	N	NSP2	6030000
6014630	6012600	5 J_Falsework	CF	195634	38.22	1953.59	1400.82	972.39	385.29	0	0	364169.44	0	0	0	389881.53	N	NSP2	6030000
6016630	6012700	5 K1_Falsework	CF	373376	36.64	1841.98	1320.79	916.83	363.27	0	0	343363.92	0	0	0	347806.79	N	NSP2	6030000
6018630	6012800	5 K2_Falsework	CF	245016	44.51	2264.68	1623.89	1127.23	446.64	0	0	422150.8	0	0	0	427823.24	N	NSP2	6030000
6020830	6012900	5 L_Falsework	CF	349600	99.21	5070.45	3635.77	2523.79	999.99	0	0	945165.46	0	0	0	957415.45	N	NSP2	6030000
6024530	6013000	5 M_Falsework	CF	185501	40.18	2053.83	1472.7	1022.28	405.05	0	0	382858.26	0	0	0	387810.13	N	NSP2	6030000
6026930	6013100	5 P_Falsework	CF	452946	89.82	4590.93	3291.93	2285.11	905.42	0	0	855798.38	0	0	0	868671.77	N	NSP2	6030000
6040000	6013200	2 NSP3 - SUBCONTRACTOR SUPPORT	LS	1	12309.24	60975.92	477564.04	412523.69	26993.29	5676.92	333321.61	65899.49	2470	2713300.13	0	5508424.09	Y	NSP3	6000000
6040100	6013300	3 BRIDGE FDN SUPPORT	LS	1	9943.24	485580.41	361876.14	272370.09	169467.97	0	925963.56	88414.42	0	2675958.65	0	4979631.24	Y	NSP3	6040000
6000605	6014000	4 A_96" CIDH Concrete Piling_SUB SUPPORT	LF	1791	1559.5	72022.51	57737.05	22723.96	11513.61	0	215622.74	10147.4	0	315202.36	0	704969.86	N	NSP3	6040100
6000615	6014100	4 A_108" CIDH Concrete Piling_SUB SUPPORT	LF	562	474.75	21509.37	17475.59	3077.67	3087.92	0	78806.26	3030.5	0	112581.24	0	242568.57	N	NSP3	6040100
6000655	6014200	4 A_120" CIDH Concrete Piling_SUB SUPPORT	LF	86	98.75	4460.67	3625.55	1171.55	610.88	0	10423.62	627.1	0	20801.74	0	41711.31	N	NSP3	6040100
6000665	6014300	4 A_144" CIDH Concrete Piling_SUB SUPPORT	LF	194	111	5084.25	4107.9	1651.49	809.37	0	69320.34	716.33	0	84582.48	0	146282.16	N	NSP3	6040100
6006315	6014400	4 D1_96" CIDH Concrete Piling_SUB SUPPORT	LF	300	359	16427.06	13303.22	5425.58	2656.19	0	69320.34	2314.44	0	70858.68	0	180507.51	N	NSP3	6040100
6004405	6014500	4 D2_96" CIDH Concrete Piling_SUB SUPPORT	LF	1080	1836.25	98089.38	74338.48	83820.17	56094.53	0	80197.45	13817.18	0	438769.26	0	845106.46	N	NSP3	6040100
6004430	6014700	4 D2_120" CIDH Concrete Piling_SUB SUPPORT	LF	270	520	27881.16	21147.04	24605	16552.78	0	31146.12	3949.33	0	150995.03	0	276371.46	N	NSP3	6040100
6004455	6014800	4 D2_144" CIDH Concrete Piling_SUB SUPPORT	LF	450	861.25	46227.39	35017.24	40683.88	27363.16	0	75185.12	6527.16	0	289739.8	0	520843.55	N	NSP3	6040100
6012405	6014900	4 G_96" CIDH Concrete Piling_SUB SUPPORT	LF	261	185	8504.69	6869.49	3054.78	1457.95	0	38611.14	1198.26	0	44316.42	0	105012.72	N	NSP3	6040100

6012301	6021800	4 CBW2 ABUTMENT FOUNDATIONS	LS	1	0	0	0	0	0	0	0	0	0	1467372	0	0	1467072	N	CBW2	8060000
6070000	6021900	2 CBW4 - BAR REINFORCING STEEL	LS	1	0	0	0	0	0	0	0	0	0	10260600	0	0	10260600	Y	CBW4	6000000
6201401	6023400	4 CBW4 - BAR REINFORCING STEEL, BRIDGE	LS	1	0	0	0	0	0	0	0	0	0	10260600	0	0	10260600	N	CBW4	6070000
6100000	6100000	2 CBSP1 - RETAINING WALLS	SF	61980	0	0	0	0	0	0	0	0	0	34360000	0	0	34360000	Y	CBSP1	6000000
6127500	6120902	4 CBSP1 - RETAINING WALLS	LS	1	0	0	0	0	0	0	0	0	0	34360000	0	0	34360000	N		6100000
7000000	7000000	1 ELECTRICAL, LIGHTING, ITS / COMMS	LS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	Y		
7000050	7000100	2 CBWxx - ELECTRICAL (LIGHTING / SIGNAL WORK)	LS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	Y		
8000000	8000000	1 AESTHETICS AND FINISHES	LS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	Y		7000000
9000000	9000000	1 GENERAL CONDITIONS	LS	1	5375	39611837.45	242114.76	2290328.3	1251851.7	0	0	0	0	0	23850172.73	57046304.94		Y		
9000050	9000100	2 INSURANCE & BOND	LS	1	0	0	0	0	0	0	0	0	0	0	16508446	16508446		Y		9000000
9000100	9000200	4 INSURANCE	LS	1	0	0	0	0	0	0	0	0	0	0	12988930	12988930		N		9000050
9000200	9000300	4 BOND	JV	1	0	0	0	0	0	0	0	0	0	0	3519516	3519516		N		9000050
9100000	9100000	2 STAFF / CRAFT RELATED INDIRECT COST	LS	1	5375	39611837.45	242114.76	2290328.3	1251851.7	0	0	0	0	0	7141726.73	50537858.94		Y		9000000
9200000	9100100	4 STAFF RELATED	LS	1	0	39220354.25	0	2172862.7	1224185.3	0	0	0	0	0	2032575	44650367.25		N		9100000
9300000	9100200	4 CRAFT RELATED	LS	1	5375	391473.2	242114.76	117455.6	27686.4	0	0	0	0	0	4397979.23	5176719.19		N		9100000
9400000	9100300	4 OFFICE & YARD	LS	1	0	0	0	0	0	0	0	0	0	0	0	0		N		9100000
9500000	9100400	4 OTHER INDIRECT COST	LS	1	0	0	0	0	0	0	0	0	0	0	345000	345000		N		9100000
9600000	9100500	4 TAXES	LS	1	0	0	0	0	0	0	0	0	0	0	365772.5	365772.5		Y		9100000
9700000	9100600	4 EQUIPMENT	LS	1	0	0	0	0	0	0	0	0	0	0	0	0		N		9100000
9900000	9900000	1 DESIGN-BUILDER CONTINGENCY	LS	1	0	0	0	0	0	0	0	0	0	0	63037655	63037655		N		
9900100	9900100	1 SUBCONTRACTS BUYOUT FUND	LS	1	0	0	0	0	0	0	0	0	0	0	7600000	7600000		N		
9910000	9910000	1 ESCALATIONS	LS	1	0	0	0	0	0	0	0	0	0	0	9823211	9823211		N		
9920000	9920000	1 GMP NEGOTIATIONS	LS	1	0	0	0	0	0	0	0	0	0	0	-10476204	-10476204		N		



ATMP ROADWAYS IMPROVEMENTS PROJECT cGMP1

Tab 5 Work Plan & Schedule

March 25, 2025

Prepared by:
Skanska-Flatiron A Joint Venture

SKANSKA | FLATIRON

ATMP Roadways Schedule Update 20-C Assumptions

IFC/Permits

Design Unit	IFC/Permitted
AC 01	9MAY25
AC 02	9MAY25
DU 01	10NOV25
DU 02A	10NOV25
DU 02B	22JAN26
DU 03	10NOV25
DU 04A	10NOV25
DU 04B	22JAN26
DU 05	22JAN26
PB 01	19NOV25
PW 1A	10NOV25
PW 1B	22JAN26
PW 2	22JAN26
UR 01	10NOV25
UR 02	22JAN26

**Including associated Use-of-Land and encroachment permits, including planning/zoning/recording to be done by others required to issue Use of Land permits.*

Taxi Hold Lot – tract map recording or other property line resolution by July 1 2025

Right-of-Way Acquisition

Parcel	Date
1 – Hyatt	13FEB26
4 – LACC	12NOV25
5 – LR Valet (Wally Park)	12NOV25
6-1 – MM and MN (Sunrise)	12NOV25
6-2 – MM and MN (Sunrise)	12NOV25
6-3 – MM and MMN (Sunrise)	12NOV25
9 – Hilton	12NOV25

Other Owner Activities

Activity	Completion
ATSAC Hub Relo. Project Complete	30APR26
Caltrans Project Report Approval	21OCT25
Caltrans Co-Op Agreement for Construction	11AUG25
Billboard Removals by LAWA/Others	11NOV25
Honeywell monitoring well abandonments	11JAN26
5G Antenna Relocations	30DEC25
SoCal Gas Main Relocation in Sepulveda	5JUL25
DWP OH to UG on Vicksburg	14APR25
DWP OH to UG West of Sepulveda	30SEP25
Shell Oil Relocations	03NOV25

Construction Area Turnover

Area	Turned Over to SFJV
Park One Lot	27OCT25
Lot along Jetway Blvd	18AUG25
Taxi Holding Lot Relocated	13NOV25
Terminal 9 Area South of Century	18AUG25
Close Park One Exit to Sepulveda and & 96 th St West of Sepulveda	22APR26

	What - If Scenarios		
	(A)	(B)* BLR0UP20-1	(C)** BLR0UP20-2
Pre-Olympic Milestones	Update 20	(A) & Partial Relief of FIFA Mor	(B) & FW Over Sep & Cen Oly
Seg A Open NB & SB, 3 Lanes Sepulveda	27-Jan-28	27-Jan-28	27-Jan-28
Seg I Open	8-Feb-28	31-Jan-28	31-Jan-28
96th St Complete & Open	14-Oct-27	14-Oct-27	14-Oct-27
96th St Ped Bridge & Path Open	13-Jan-28	19-Jan-28	19-Jan-28
Sepulveda Ped Bridge Open	28-Dec-27	9-Dec-27	9-Dec-27
Project Substantial Completion	18-Sep-30	18-Sep-30	20-May-30
Project Final Completion	7-Dec-30	7-Dec-30	8-Aug-30

In schedule (B), SFJV modified the FIFA Moratorium calendar non-working days.

- Review of the FIFA Schedule of Games indicates the first game to be played in Los Angeles to be on 12JUN26 with the last game scheduled for 10JUL26. Per Update 20, the FIFA Moratorium ran from 30MAY26 thru 19JUL26. Schedule (B) adjusted the moratorium period limiting it to 06JUN26 thru 12JUL26 based upon the published game schedule for Los Angeles

In schedule (C), SFJV changed the calendar assignment on the activities previously constrained by calendar to commence after the expiration of the Olympic moratorium.

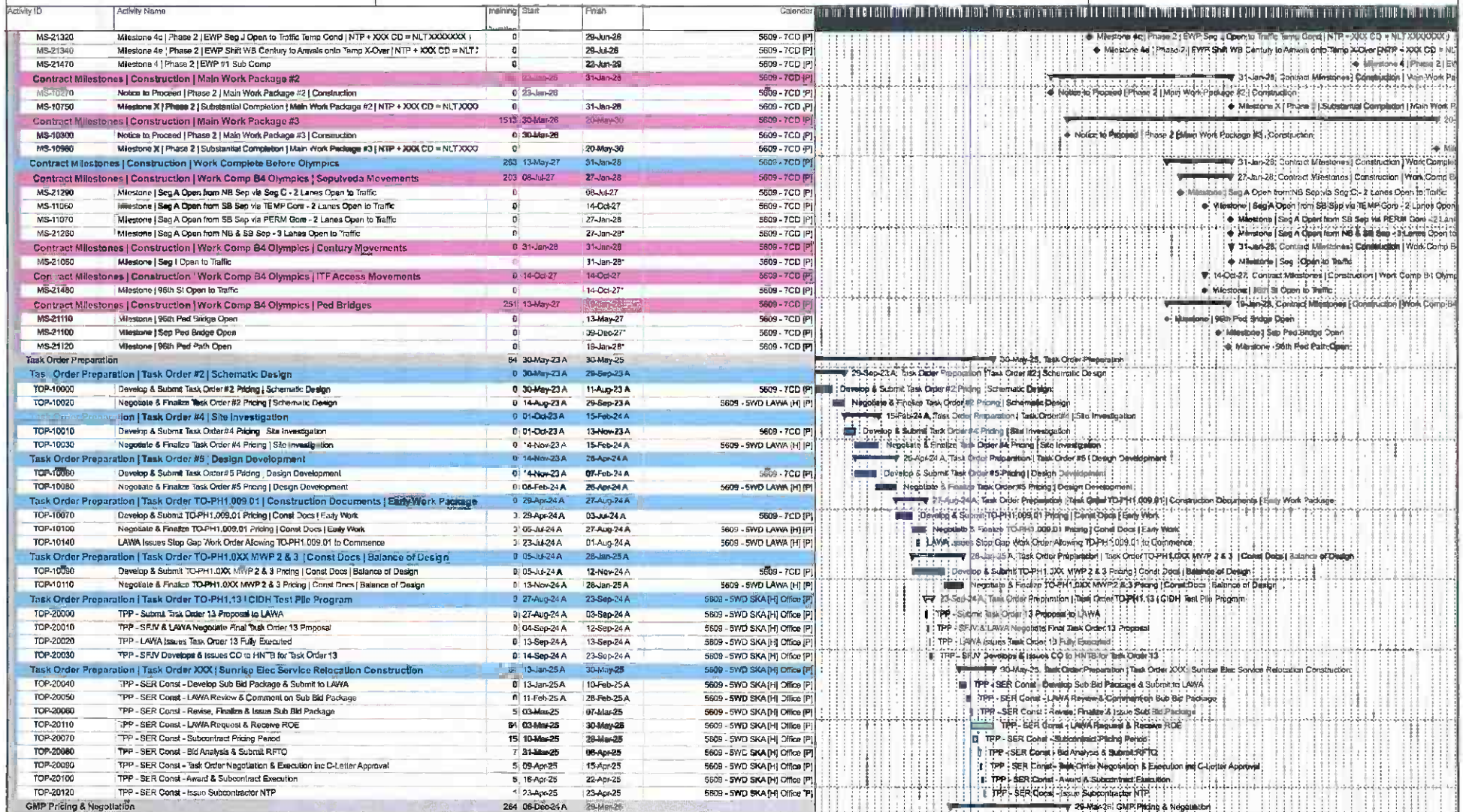
This modification allows the longest path of the Project to progress thru the moratorium and thereby bring back the Final Completion Date.

June 2026							July 2026						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6				1	2	3	4
7	8	9	10	11	12	13	5	6	7	8	9	10	11
14	15	16	17	18	19	20	12	13	14	15	16	17	18
21	22	23	24	25	26	27	19	20	21	22	23	24	25
28	29	30					26	27	28	29	30	31	

ID	Description
CON-33410	S5 - D2-F4 - FW - Install Grillage/Bents/Bent Caps/Posts
CON-36940	S5 - K-SP1 - FW - Install Grillage/Bents/Bent Caps/Posts
CON-37160	S5 - K-SP3 - FW - Install Grillage/Bents/Bent Caps/Posts
CON-37470	S5 - P-SP1 - FW - Install Grillage/Bents/Bent Caps/Posts
CON-37690	S5 - P-SP3 - FW - Install Grillage/Bents/Bent Caps/Posts
CON-40180	S5 - D2-F3 - FW - Install Grillage/Bents/Bent Caps/Posts - North of Century
CON-51101	S5 - D2-F3 - FW - Install Grillage/Bents/Bent Caps/Posts - Over WB Century
CON-51111	S5 - D2-F3 - FW - Install Grillage/Bents/Bent Caps/Posts - Over EB Century

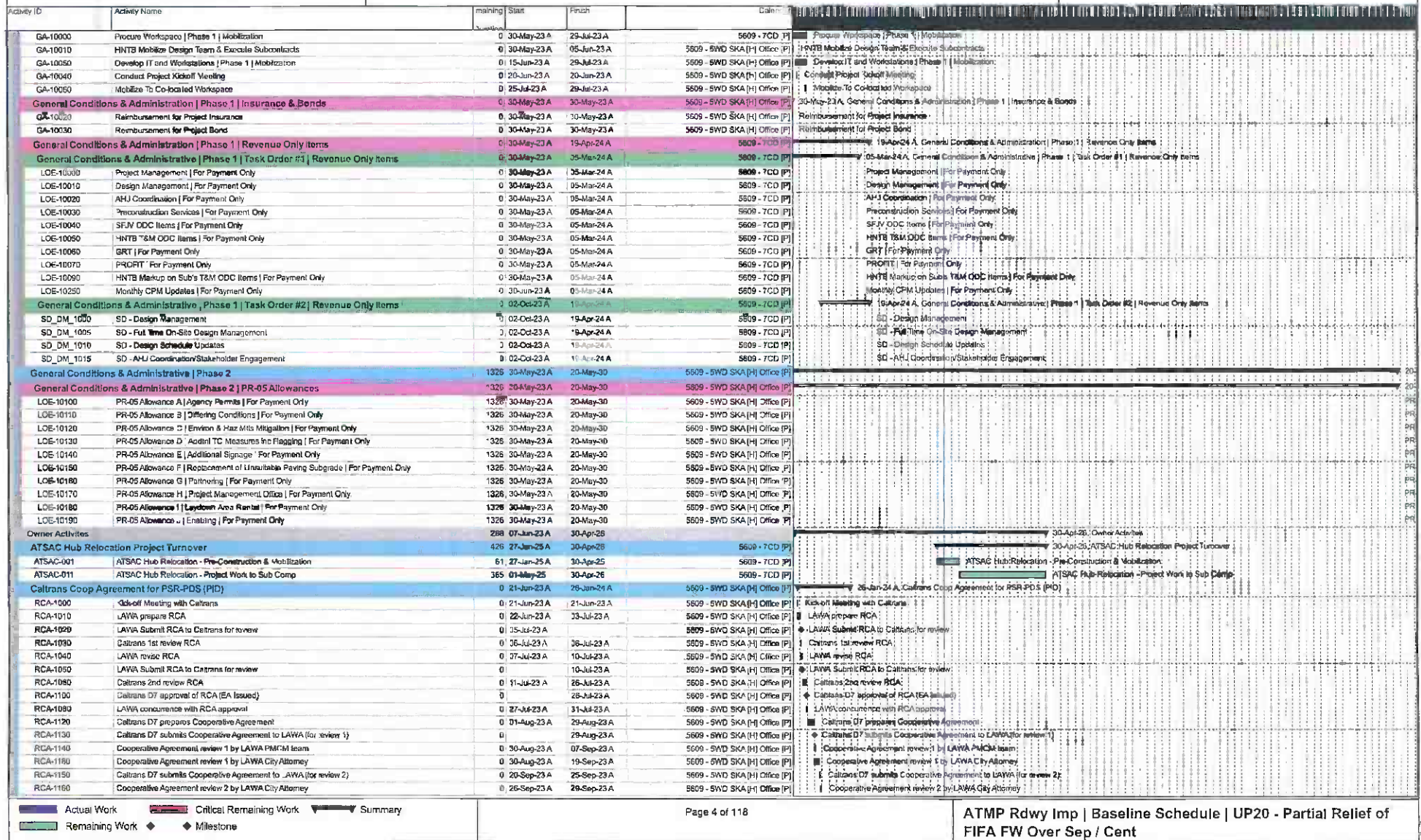
Activity ID	Activity Name	Planning	Start	Finish	Calendar
ATMP Rdwy Imp | Baseline Schedule | UP20 - Partial Relief of FIFA & FW Over Sep / C		1340	30-May-23 A	08-Aug-24	
Contract Milestones | Project Completion					
MS-10090	Project Substantial Completion	0	20-May-30	08-Aug-30	5609 - 7CD [P]
CM-10010	Project Closeout	0	21-May-30	08-Aug-30	5609 - 7CD [P]
MS-11000	Project Final Completion	0		08-Aug-30	5609 - 7CD [P]
Contract Milestones | Phase 1					
MS-10000	Notice to Proceed | Phase 1 | Task Order #1 | Basis of Design	0	30-May-23 A	05-Mar-24 A	5609 - 7CD [P]
MS-10010	Schedule Deliverable 1 | Submit Phase 1 Baseline Schedule | NTP + 60CD = NLT 26JUL23	0		26-Jun-23 A	5609 - SWD SKA [H] Office [P]
MS-10050	Milestone 1 | Pre Assessment, All Analysis & Proof of Concept Rpts | NTP + 180CD = NLT 25NOV23	0		05-Mar-24 A	5609 - 7CD [P]
Contract Milestones | Phase 1 | Task Order #2 | Schematic Design					
MS-10030	Notice to Proceed | Phase 1 | Task Order #2 | Schematic Design	0	03-Oct-23 A		5609 - SWD LAVA [H] [P]
MS-10050	Milestone 2 | Task Order #2 | Schematic Design Complete | NTP + 7 Months = 02MAY24	0		18-Apr-24 A	5609 - 7CD [P]
Contract Milestones | Phase 1 | Task Order #3 | MOT Analysis & Traffic Routing Evaluation					
MS-21170	Milestone 1 | TO-PH1.003.01 | IFC Ready Docs Submitted | NTP + 180 CD = NLT 26FEB25	0	31-May-23	31-May-23	5609 - 7CD [P]
MS-10040	Notice to Proceed | Phase 1 | Task Order #4 | Site Investigation	0	15-Feb-24 A	06-Mar-25	5609 - 7CD [P]
MS-10180	Milestone 1 | Task Order #4 | Site Investigation Complete | NTP + 10 Months = 15DEC24	0		06-Mar-25	5609 - 7CD [P]
Contract Milestones | Phase 1 | Task Order #5 | Design Development					
MS-11020	LAVA Issues Stop Gap Work Order to Commence Design Development	0	30-Mar-24 A	30-Mar-24 A	5609 - 7CD [P]
MS-10070	Notice to Proceed | Phase 1 | Task Order #5 | Design Development	0	31-Apr-24 A		5609 - 7CD [P]
MS-21010	Milestone T05.1 | Task Order #5 | Des Dev DU-1 Complete | NLT 26JUL24	0		26-Jul-24 A	5609 - 7CD [P]
MS-20030	Milestone T05.AC1 | Task Order #5 | Des Dev DU-AC1 Complete | NLT 02AUG24	0		22-Aug-24 A	5609 - 7CD [P]
MS-20051	Milestone T05.3 | Task Order #5 | Des Dev DU-3 Complete | NLT 16AUG24	0		16-Aug-24 A	5609 - 7CD [P]
MS-20051	Milestone T05.6 | Task Order #5 | Des Dev DU-6 Complete | NLT 20SEP24	0		20-Sep-24 A	5609 - 7CD [P]
MS-20071	Milestone T05.4 | Task Order #5 | Des Dev DU-4 Complete | NLT 10OCT24	0		10-Oct-24 A	5609 - 7CD [P]
MS-20040	Milestone T05.2, PW4, PB-1 | Task Order #5 | Des Dev DU-2, PW-1, PB-1 Complete | NLT 15NOV24	0		15-Nov-24 A	5609 - 7CD [P]
Contract Milestones | Phase 2					
MS-10090	Notice to Proceed | Phase 2 | Task Order #6A | Const Docs | Early Work	0	02-Aug-24 A	06-Dec-24 A	5609 - 7CD [P]
MS-10140	Milestone X | TO-PH1.009.01 | 90% Const Docs Complete | Early Work | NTP + 125 CD = NLT 06DEC	0		06-Dec-24 A	5609 - 7CD [P]
Contract Milestones | Phase 2 | Task Order 10 | Sunrise Electrical Service Relocation Design					
MS-21190	Notice to Proceed | TO-PH1.010 | Sunrise Electrical Service Relocation Design	0	30-Jul-24 A	30-May-25	5609 - 7CD [P]
MS-21190	Milestone 1 | TO-PH1.010 | Sunrise Electrical Service Relocation Design | NLT NTP+87 CD = 24OCT24	0		01-Nov-24 A	5609 - 7CD [P]
MS-21200	Milestone 2 | TO-PH1.010 | Sunrise Electrical Service Relocation Design - IFC's Issued	0		30-May-25	5609 - 7CD [P]
Contract Milestones | Phase 2 | Task Order 11 | Taxi Holding Lot Design					
MS-21220	Notice to Proceed | TO 11 | Taxi Holding Lot Design	0	21-Aug-24 A		5609 - 7CD [P]
MS-21230	Milestone 11-1 | TO 11 | THLD | 100 % DD pkg Submitted | NTP + 184 CD = 21FEB25	0		28-Mar-25	5609 - 7CD [P]
MS-21240	Milestone 11-2 | TO 11 | THLD | IFC Ready Docs Submitted | NTP + 274 CD = 22MAY25	0		27-Jun-25	5609 - 7CD [P]
Contract Milestones | Phase 2 | Task Order 12 | Const Docs | Balance of Design					
MS-21210	Limited Notice to Proceed | Phase 2 | TO-PH1.012 MWP 2 & 3 | Const Docs | Balance of Design	0	06-Sep-24 A		5609 - 7CD [P]
MS-10190	Full Notice to Proceed | Phase 2 | TO-PH1.00X MWP 2 & 3 | Const Docs | Balance of Design	0	29-Jun-25 A		5609 - 7CD [P]
MS-10190	Milestone X | TO-PH1.00X MWP 2 & 3 | Const Docs Complete | Main Work Package #2 | NTP + XXX	0		22-Jan-26	5609 - 7CD [P]
MS-10280	Milestone X | TO-PH1.00X MWP 2 & 3 | Const Docs Complete | Main Work Package #3 | NTP + XXX	0		18-Mar-26	5609 - 7CD [P]
Contract Milestones | Phase 2 | Task Order 13 | CIDH Test Pile Program					
MS-10280	Notice to Proceed | TO 13 | CIDH Test Pile Program	0	13-Sep-24 A		5609 - 7CD [P]
MS-10280	Milestone X | TO 13 | CIDH Test Pile Program Complete	0		12-Jun-25	5609 - 7CD [P]
Contract Milestones | Phase 2 | Task Order 15 | Seg D Lane Config (DU-2B)					
MS-21270	Notice to Proceed | TO 15 | Seg D Lane Config DU-2B	0	22-Oct-24 A		5609 - 7CD [P]
MS-21280	Milestone X | TO 15 | Seg D Lane Config DU-2B 60% Design Complete	0		31-Jan-25 A	5609 - 7CD [P]
Contract Milestones | Construction | Early Work Package #1					
MS-10170	Notice to Proceed | Phase 2 | EWP #1 | Construction	0	17-Jul-25	22-Jun-26	5609 - SWD SKA [H] Office [P]
MS-21300	Milestone 4a | Phase 2 | EWP Dual Bank OH to UG Commis Widening Complete | NTP + XXX CD = N	0		29-Jan-26	5609 - 7CD [P]
MS-21330	Milestone 4b | Phase 2 | EWP AT&T Dual Bank Along Separators Complete | NTP + XXX CD = NLT 170	0		09-Mar-26	5609 - 7CD [P]
MS-21310	Milestone 4b | Phase 2 | EWP East Bound Century Widening Open to Traffic | NTP + XXX CD = NLT X	0		30-Apr-26	5609 - 7CD [P]

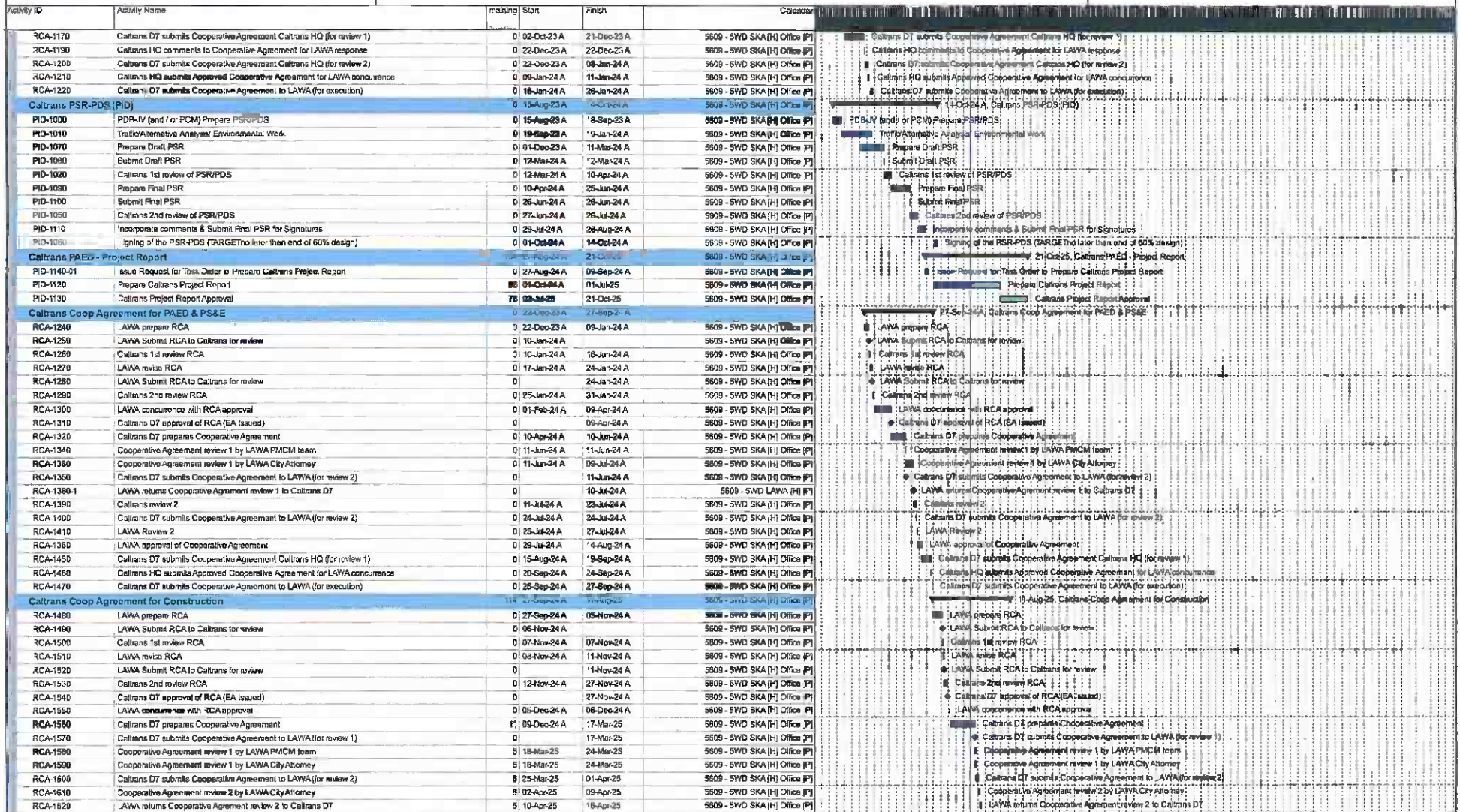
Actual Work Critical Remaining Work Summary
Remaining Work Milestone



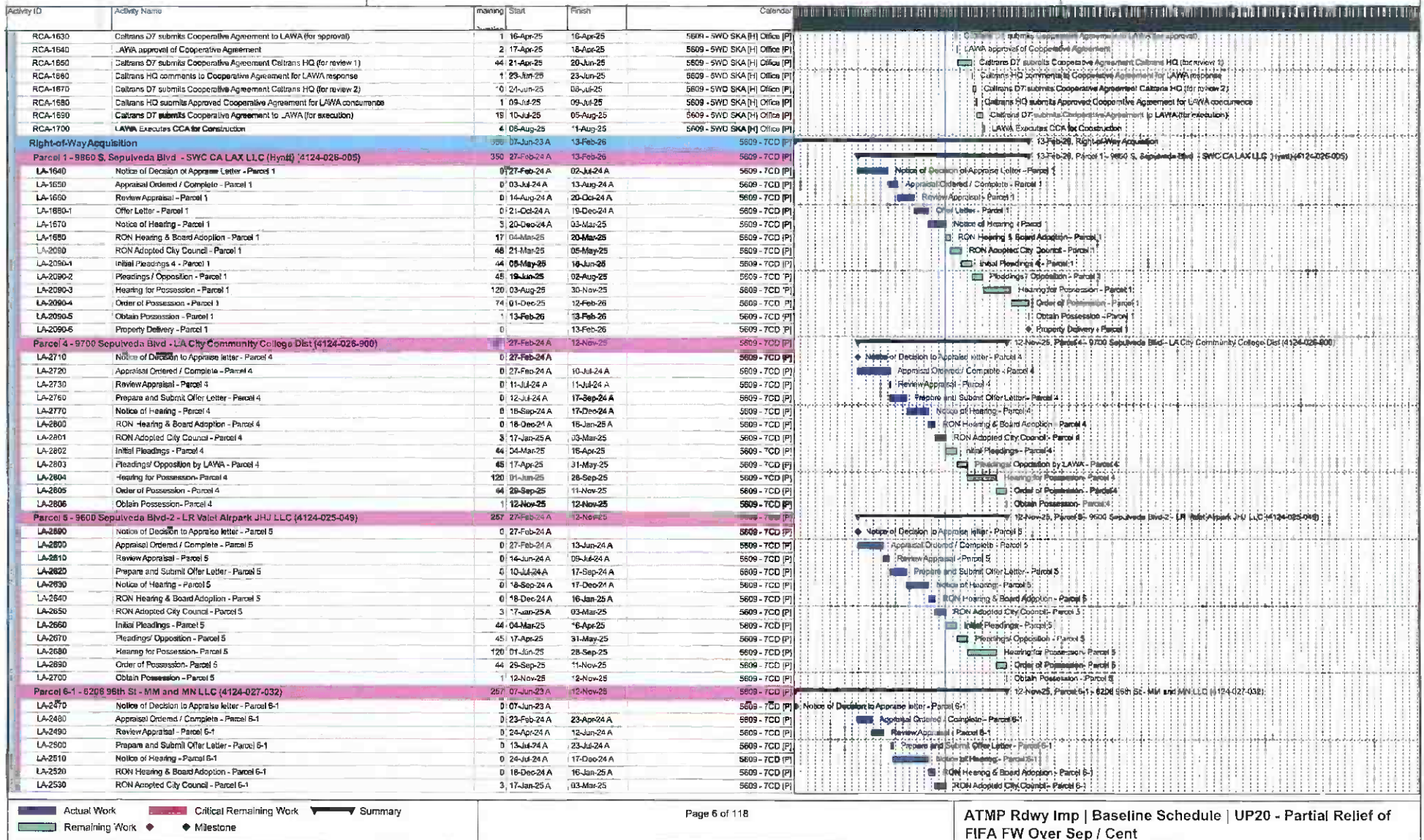
Activity ID	Activity Name	Duration	Start	Finish	Calendar
GMP Pricing & Negotiation | Early Work Package #1					
GMP-10000	Develop Cost Estimate & Procure Subs | EWP #1 @ 90%	6	09-Dec-24	31-Jan-25	5609 - 7CD [P]
GMP-10010	Negotiate GMP | EWP #1 @ 90%	45	27-Jan-25	14-Apr-25	5609 - 7CD [P]
GMP-10020	LAWA - ADP Steering Committee Preparation | EWP #1 @ 90%	0	30-Jan-25	26-Feb-25	5609 - SWD LAWA [H] [P]
GMP-10030	LAWA - Conduct Steering Committee Meeting | EWP #1 @ 90%	0	27-Feb-25	27-Feb-25	5609 - SWD LAWA [H] [P]
GMP-10040	LAWA - Finalize Board Report & Upload | EWP #1 @ 90%	30	23-Feb-25	14-Apr-25	5609 - SWD LAWA [H] [P]
GMP-10050	LAWA - Conduct BOAC Meeting | EWP #1 @ 90%	1	17-Apr-25	17-Apr-25	5609 - BOAC [P]
GMP-10070	LAWA - City Council Review & Contract Execution | EWP #1 @ 90%	60	18-Apr-25	16-Jul-25	5609 - 7CD [P]
GMP-10090	Develop & Submit Cost Estimate | EWP #1 @ IFC	45	12-May-25	16-Jul-25	5609 - SWD SKA [H] [P]
GMP-10120	Negotiate & Execute Contract Mod | EWP #1 @ IFC	90	16-Jul-25	13-Oct-25	5609 - 7CD [P]
GMP Pricing & Negotiation | Main Work Package #2					
GMP-10080	Develop Cost Estimate & Procure Subs | MWP #2	43	24-May-25	05-Jul-25	5609 - SWD [P]
GMP-10100	Negotiate GMP | MWP #2	21	07-Jul-25	06-Aug-25	5609 - SWD LAWA [H] [P]
GMP-10130	LAWA - ADP Steering Committee Preparation | MWP #2	15	05-Aug-25	25-Aug-25	5609 - SWD LAWA [H] [P]
GMP-10140	LAWA - Conduct Steering Committee Meeting | MWP #2	1	28-Aug-25	28-Aug-25	5609 - SWD LAWA [H] [P]
GMP-10150	LAWA - Finalize Board Report & Upload | MWP #2	5	27-Aug-25	03-Sep-25	5609 - SWD LAWA [H] [P]
GMP-10160	LAWA - Agenda Review | MWP #2	1	11-Sep-25	11-Sep-25	5609 - SWD LAWA [H] [P]
GMP-10190	LAWA - Conduct BOAC Meeting | MWP #2	1	18-Sep-25	18-Sep-25	5609 - BOAC [P]
GMP-10200	LAWA - City Council Review & Contract Execution | MWP #2	120	19-Sep-25	16-Jan-26	5609 - 7CD [P]
GMP Pricing & Negotiation | Main Work Package #3					
GMP-10110	Develop Cost Estimate & Procure Subs | MWP #3	55	09-Sep-25	12-Nov-25	5609 - 7CD [P]
GMP-10180	Negotiate GMP | MWP #3	64	13-Nov-25	18-Feb-26	5609 - SWD LAWA [H] [P]
GMP-10250	LAWA - ADP Steering Committee Preparation | MWP #3	5	18-Feb-26	25-Feb-26	5609 - SWD LAWA [H] [P]
GMP-10270	LAWA - Conduct Steering Committee Meeting | MWP #3	1	25-Feb-26	25-Feb-26	5609 - SWD LAWA [H] [P]
GMP-10280	LAWA - Finalize Board Report & Upload | MWP #3	5	27-Feb-26	05-Mar-26	5609 - SWD LAWA [H] [P]
GMP-10290	LAWA - Agenda Review | MWP #3	1	13-Mar-26	13-Mar-26	5609 - SWD LAWA [H] [P]
GMP-10300	LAWA - Conduct BOAC Meeting | MWP #3	1	19-Mar-26	19-Mar-26	5609 - BOAC [P]
GMP-10310	LAWA - City Council Review & Contract Execution | MWP #3	16	20-Mar-26	29-Mar-26	5609 - 7CD [P]
Commercial Matters - Stop Work Ped Bridge Design					
COMM-10010	SFJV Noted to Stop Work Ped Bridge Design (PB-1)	0	12-Jun-24	12-Jun-24	5609 - SWD LAWA [H] [P]
COMM-10030	Stop Work Ped Bridge Design Duration	0	13-Jun-24	14-Jun-24	5609 - 7CD [P]
COMM-10040	SFJV Noted to Re-Commence Ped Bridge Design (PB-1)	0	15-Jul-24	15-Jul-24	5609 - SWD SKA [H] [P]
Commercial Matters - Field Directive 002R2 - TO #3					
COMM-10020	SFJV issued Field Directive 002R2 / Stop Work PH1-T003	0	29-May-24	29-May-24	5609 - SWD LAWA [H] [P]
COMM-10060	Prepare & Submit Revised TO #3 Proposal	0	34-Jun-24	18-Jul-24	5609 - SWD SKA [H] [P]
COMM-10070	Negotiate & Finalize TO #3 Revised Proposal	0	19-Jul-24	13-Aug-24	5609 - SWD SKA [H] [P]
COMM-10080	LAWA Issues TO-PH1-003.03	0	14-Aug-24	20-Aug-24	5609 - SWD SKA [H] [P]
Commercial Matters - Field Directive 0011 Seg D Lane Config					
COMM-10090	Receive FD-0011 Seg D Lane Configuration from LAWA	0	08-Sep-24	08-Sep-24	5609 - SWD LAWA [H] [P]
COMM-10100	Prepare, Negotiate & Finalize Task Order 15 - DU-28	0	08-Sep-24	21-Oct-24	5609 - SWD SKA [H] [P]
Commercial Matters - CPCN-0003 Caltrans Submittal & Review Process					
COMM-10110	Extended Duration Caltrans Review of DUGS 50% Submittal	0	21-Oct-24	30-Dec-24	5609 - SWD LAWA [H] [P]
Commercial Matters - Right of Way Linework					
COMM-10120	SFJV Issues CPCN-0004 to LAWA Re: ROW Linework	0	27-Dec-24	27-Dec-24	5609 - SWD SKA [H] [P]
COMM-10130	LAWA Transmits Requested ROW Linework Files	0	30-Dec-24	10-Jan-25	5609 - SWD LAWA [H] [P]
COMM-10180	HNTB Review of ROW Linework Files & Finalize Incomplete Information	0	13-Jan-25	07-Feb-25	5609 - SWD SKA [H] [P]
COMM-10190	LAWA Issues FD-0021	0	07-Feb-25	07-Feb-25	5609 - SWD, Hnt
Commercial Matters - LADBS Review of Ped Bridges					
COMM-10140	LADBS Review & Rejection of PB1 50% Submittal	0	14-Nov-24	11-Dec-24	5609 - SWD LAWA [H] [P]
COMM-10150	LAWA Resolves Zoning Issues Related to PB1 Rejection by LADBS	8	12-Dec-24	07-Mar-25	5609 - SWD LAWA [H] [P]
COMM-10160	Prepare & Resubmit PB1 w/ Zoning & Parking Analysis (50% REV01)	5	10-Mar-25	14-Apr-25	5609 - SWD SKA [H] [P]
COMM-10170	LADBS Review & Approval of PB1 50% REV01	30	15-Mar-25	13-Apr-25	5609 - 7CD [P]
General Conditions & Administrative | Phase 1					
General Conditions & Administrative | Phase 1 | Mobilization					

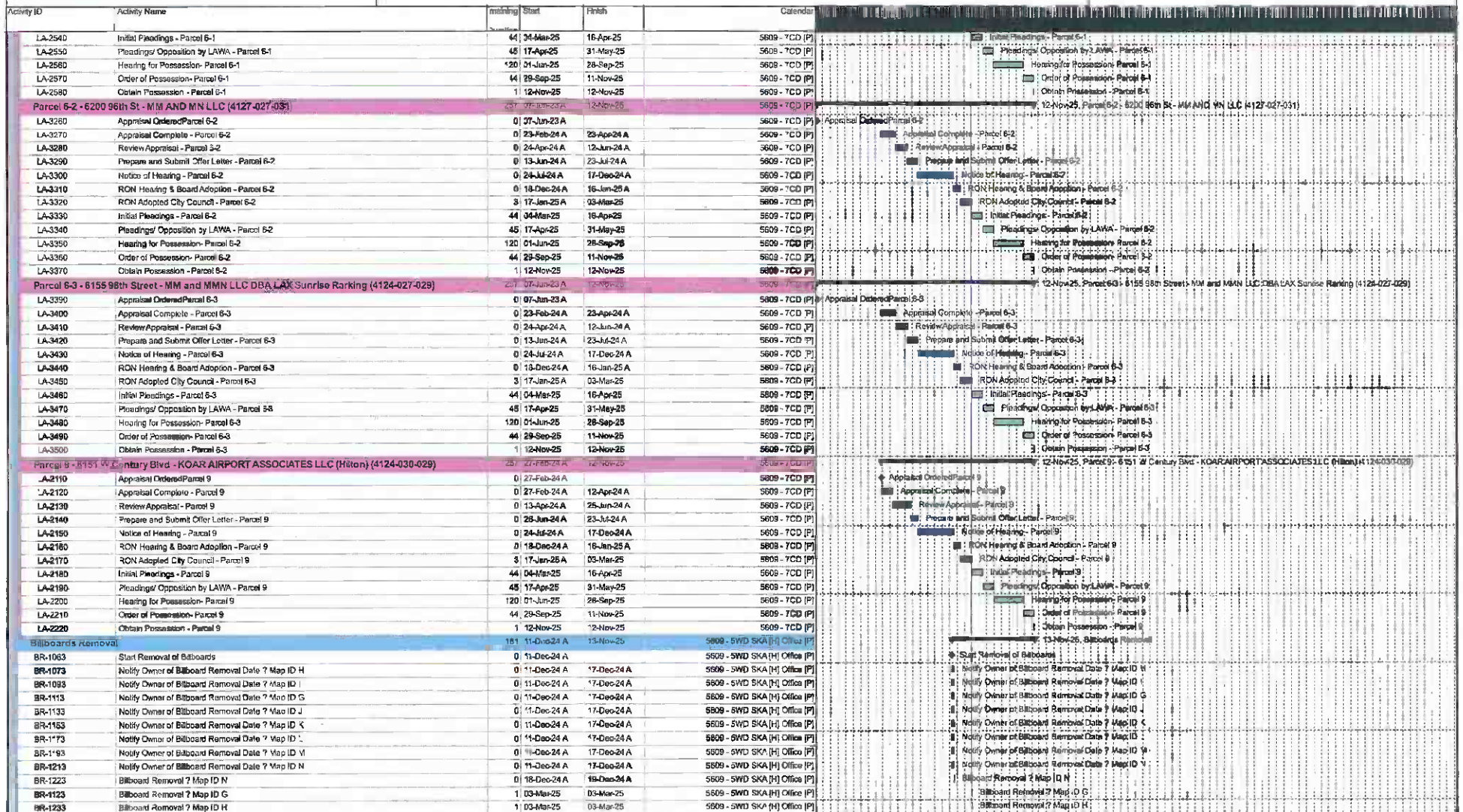
Actual Work Critical Remaining Work Summary
Remaining Work Milestone





Actual Work Critical Remaining Work Summary
 Remaining Work Milestone





Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Quantity	Start	Finish	Calendar	Notes
BR-1105	Billboard Removal 7 Map ID I	1	09-May-25	09-May-25	5609 - SWD SKA [H] Office [P]	1: Billboard Removal 7 Map ID I
BR-1143	Billboard Removal 7 Map ID J	1	09-May-25	09-May-25	5609 - SWD SKA [H] Office [P]	2: Billboard Removal 7 Map ID J
BR-1163	Billboard Removal 7 Map ID K	1	13-Nov-25	13-Nov-25	5609 - SWD SKA [H] Office [P]	3: Billboard Removal 7 Map ID K
BR-1183	Billboard Removal 7 Map ID L	1	13-Nov-25	13-Nov-25	5609 - SWD SKA [H] Office [P]	4: Billboard Removal 7 Map ID L
BR-1203	Billboard Removal 7 Map ID M	1	13-Nov-25	13-Nov-25	5609 - SWD SKA [H] Office [P]	5: Billboard Removal 7 Map ID M
Design & Preconstruction		545	30-May-23 A	16-May-27		
Design & Preconstruction | Phase 1		84	30-May-23 A	31-May-25		
Design & Precon | P1 | Project Submittals		0	30-May-23 A	20-Jun-23 A		
DS-10010	Prepare & Submit Project Schedule	0	30-May-23 A	14-Jun-23 A	5609 - TCD [P]	1: Prepare & Submit Project Schedule
DS-10020	Prepare & Submit Project Management Plan	0	30-May-23 A	26-Jun-23 A	5609 - TCD [P]	2: Prepare & Submit Project Management Plan
DS-10030	Prepare & Submit Submittal Schedule	0	30-May-23 A	19-Jun-23 A	5609 - TCD [P]	3: Prepare & Submit Submittal Schedule
DS-10370	Review & Accept Project Schedule	0	15-Jun-23 A	30-Jun-23 A	5609 - SWD SKA [H] Office [P]	4: Review & Accept Project Schedule
DS-10270	Review & Accept Submittal Schedule	0	20-Jun-23 A	30-Jun-23 A	5609 - SWD SKA [H] Office [P]	5: Review & Accept Submittal Schedule
DS-10280	Review & Accept Project Management Plan	0	28-Jun-23 A	20-Jul-23 A	5609 - SWD SKA [H] Office [P]	6: Review & Accept Project Management Plan
Design & Precon | P1 | Basis Of Design		0	30-May-23 A	05-May-24 A		
Design & Precon | P1 | Basis Of Design | Preliminary Assessment		0	07-Jun-23 A	25-Sep-23 A		
Design & Precon | P1 | Basis Of Design | Preliminary Assessment | Records Research		0	07-Jun-23 A	28-Jul-23 A		
DS-10040	Develop Matrix of Documents to be Researched	0	07-Jun-23 A	14-Jun-23 A	5609 - SWD SKA [H] Office [P]	1: Develop Matrix of Documents to be Researched
LOE-10200	Records Research Duration | For Payment Only	0	07-Jun-23 A	28-Jul-23 A	5609 - TCD [P]	2: Records Research Duration | For Payment Only
DS-10150	Conduct Mtg w/ LAWA re: Available Documents & Design Files	0	14-Jun-23 A	14-Jun-23 A	5609 - SWD SKA [H] Office [P]	3: Conduct Mtg w/ LAWA re: Available Documents & Design Files
DS-10170	LAWA Prep & Transmit Record Documents	0	19-Jun-23 A	21-Jul-23 A	5609 - SWD LAWA [H] [P]	4: LAWA Prep & Transmit Record Documents
DS-10180	Review Documents Received	0	19-Jun-23 A	28-Jul-23 A	5609 - SWD SKA [H] Office [P]	5: Review Documents Received
Design & Precon | P1 | Basis Of Design | Preliminary Assessment | Stakeholder Interviews		0	03-Jul-23 A	18-Aug-23 A		
DS-10050	Prepare Client/Stakeholder Interface Plan	0	03-Jul-23 A	14-Jul-23 A	5609 - SWD SKA [H] Office [P]	1: Prepare Client/Stakeholder Interface Plan
LOE-10210	Stakeholder Interface Duration | For Payment Only	0	03-Jul-23 A	18-Aug-23 A	5609 - TCD [P]	2: Stakeholder Interface Duration | For Payment Only
DS-10120	Receive Stakeholder List from LAWA	0	10-Jul-23 A	14-Jul-23 A	5609 - SWD SKA [H] Office [P]	3: Receive Stakeholder List from LAWA
DS-10160	Conduct Stakeholder Interviews	0	12-Jul-23 A	18-Aug-23 A	5609 - SWD SKA [H] Office [P]	4: Conduct Stakeholder Interviews
DS-10110	Conduct Mtg w/ LAWA re: Client/Stakeholder Interface Plan	0	14-Jul-23 A	14-Jul-23 A	5609 - SWD SKA [H] Office [P]	5: Conduct Mtg w/ LAWA re: Client/Stakeholder Interface Plan
Design & Precon | P1 | Basis Of Design | Preliminary Assessment | Prelim Assess Report		0	03-Jun-23 A	25-Sep-23 A		
DS-10190	Prepare Summary of Existing Conditions Document	0	25-Jun-23 A	18-Aug-23 A	5609 - SWD SKA [H] Office [P]	1: Prepare Summary of Existing Conditions Document
DS-10200	Prepare Project Purpose Document	0	25-Jun-23 A	18-Aug-23 A	5609 - SWD SKA [H] Office [P]	2: Prepare Project Purpose Document
DS-10210	Prepare Performance Requirements Document	0	25-Jun-23 A	18-Aug-23 A	5609 - SWD SKA [H] Office [P]	3: Prepare Performance Requirements Document
DS-10220	Prepare Project Limits & Exclusions Document	0	25-Jun-23 A	18-Aug-23 A	5609 - SWD SKA [H] Office [P]	4: Prepare Project Limits & Exclusions Document
DS-10230	Prepare Initial Findings Document	0	25-Jun-23 A	21-Aug-23 A	5609 - SWD SKA [H] Office [P]	5: Prepare Initial Findings Document
DS-10240	Prepare Risk Register	0	25-Jun-23 A	13-Aug-23 A	5609 - SWD SKA [H] Office [P]	6: Prepare Risk Register
LOE-10230	Prelim Assessment Report Duration | For Payment Only	0	25-Jun-23 A	18-Sep-23 A	5609 - TCD [P]	7: Prelim Assessment Report Duration | For Payment Only
DS-10350	Perform QA/QC Review on Draft Documents	0	02-Aug-23 A	25-Aug-23 A	5609 - SWD SKA [H] Office [P]	8: Perform QA/QC Review on Draft Documents
DS-10390	Finalize Draft Preliminary Assessment Report	0	03-Aug-23 A	25-Aug-23 A	5609 - SWD SKA [H] Office [P]	9: Finalize Draft Preliminary Assessment Report
DS-10410	Perform QA Review of Draft Preliminary Assessment Report | Submit to LAWA	0	26-Aug-23 A	29-Aug-23 A	5609 - SWD SKA [H] Office [P]	10: Perform QA Review of Draft Preliminary Assessment Report | Submit to LAWA
DS-10430	LAWA Review & Comment Draft Preliminary Assessment Inc Meeting	0	30-Aug-23 A	14-Sep-23 A	5609 - SWD LAWA [H] [P]	11: LAWA Review & Comment Draft Preliminary Assessment Inc Meeting
DS-10520	Incorporate LAWA Comments & Submit Final Preliminary Assessment Report	0	15-Sep-23 A	19-Sep-23 A	5609 - SWD SKA [H] Office [P]	12: Incorporate LAWA Comments & Submit Final Preliminary Assessment Report
DS-10610	LAWA Review & Accept Final Preliminary Assessment Report	0	20-Sep-23 A	25-Sep-23 A	5609 - SWD LAWA [H] [P]	13: LAWA Review & Accept Final Preliminary Assessment Report
Design & Precon | P1 | Basis Of Design | Alternatives Analysis		0	05-Jun-23 A	04-Dec-23 A		
Design & Precon | P1 | Basis Of Design | Alternatives Analysis | Advmnt of Alternative		0	05-Jun-23 A	30-Aug-23 A		
DS-10080	Conduct Design Workshop w/ LAWA	0	05-Jun-23 A	06-Jun-23 A	5609 - SWD LAWA [H] [P]	1: Conduct Design Workshop w/ LAWA
DS-10070	Develop Concept Drawings	0	05-Jun-23 A	28-Jul-23 A	5609 - SWD SKA [H] Office [P]	2: Develop Concept Drawings
DS-10080	Develop Phasing & Delivery Strategy (Advancement of Concepts)	0	05-Jun-23 A	30-Aug-23 A	5609 - SWD SKA [H] Office [P]	3: Develop Phasing & Delivery Strategy (Advancement of Concepts)
DS-10090	Develop Traffic Modeling & Simulations Updates (Advancement of Concepts)	0	05-Jun-23 A	30-Aug-23 A	5609 - SWD SKA [H] Office [P]	4: Develop Traffic Modeling & Simulations Updates (Advancement of Concepts)
DS-10100	Develop Advancement of Concepts - Alternatives	0	05-Jun-23 A	28-Jul-23 A	5609 - SWD SKA [H] Office [P]	5: Develop Advancement of Concepts - Alternatives
DS-10130	Conduct Innovations Workshop w/ LAWA	0	03-Jul-23 A	03-Jul-23 A	5609 - SWD LAWA [H] [P]	6: Conduct Innovations Workshop w/ LAWA
DS-10290	Revise Concept Documents	0	31-Jul-23 A	29-Aug-23 A	5609 - SWD SKA [H] Office [P]	7: Revise Concept Documents
DS-10320	Revise Advancement of Concept Documents - Alternatives	0	31-Jul-23 A	28-Aug-23 A	5609 - SWD SKA [H] Office [P]	8: Revise Advancement of Concept Documents - Alternatives
Design & Precon | P1 | Basis Of Design | Alternatives Analysis | Finalize Alternatives		0	27-Aug-23 A	05-Oct-23 A		
DS-10420	Perform Final Constructability Review of Concept	0	21-Aug-23 A	02-Oct-23 A	5609 - SWD SKA [H] Office [P]	1: Perform Final Constructability Review of Concept
DS-10480	Incorporate Final Constructability Review Comments into Concept Documents	0	31-Aug-23 A	02-Oct-23 A	5609 - SWD SKA [H] Office [P]	2: Incorporate Final Constructability Review Comments into Concept Documents
DS-10510	Perform QA Review of Concept Document with Constructability Review Comments Incorporated	0	03-Oct-23 A	05-Oct-23 A	5609 - SWD SKA [H] Office [P]	3: Perform QA Review of Concept Document with Constructability Review Comments Incorporated

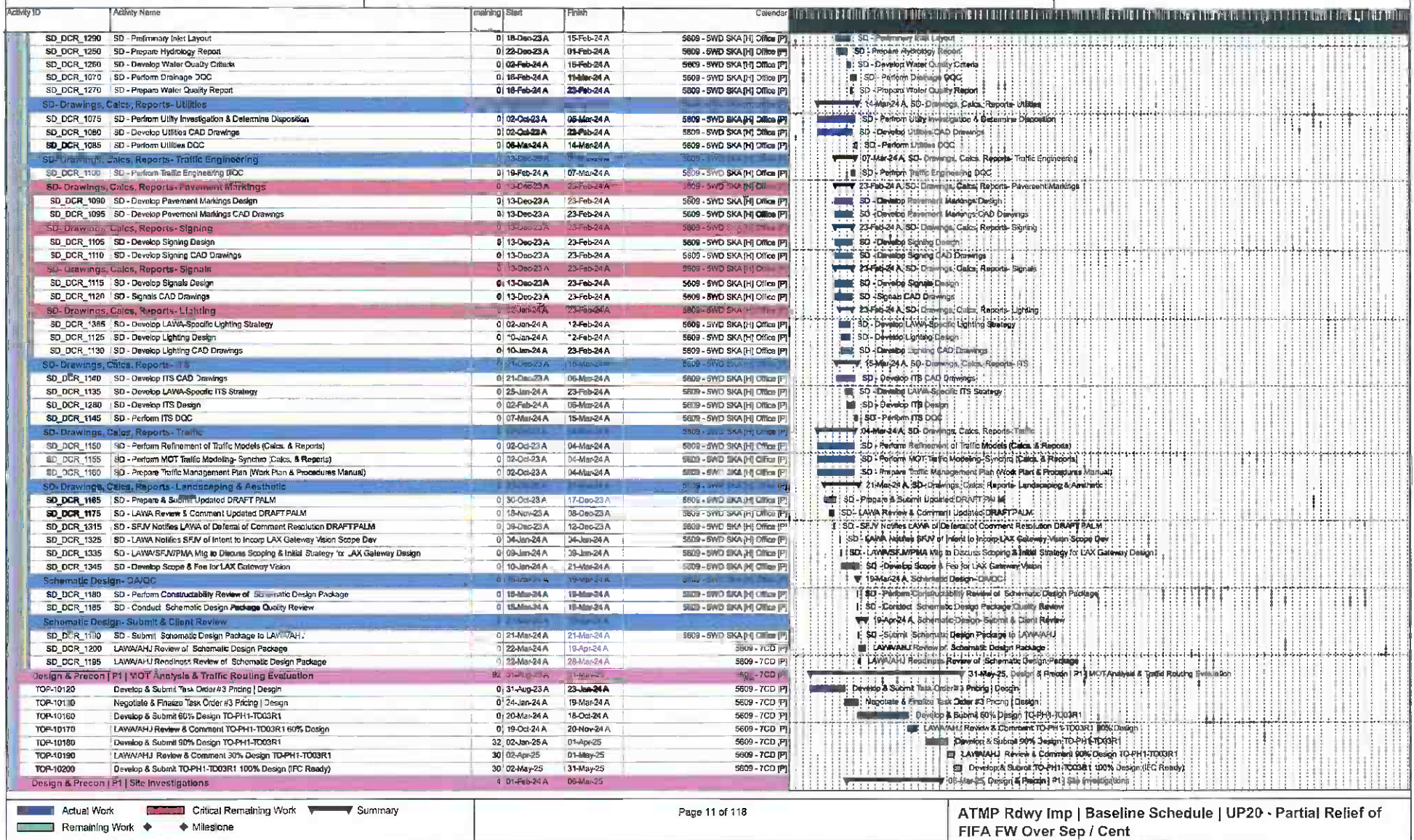
Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

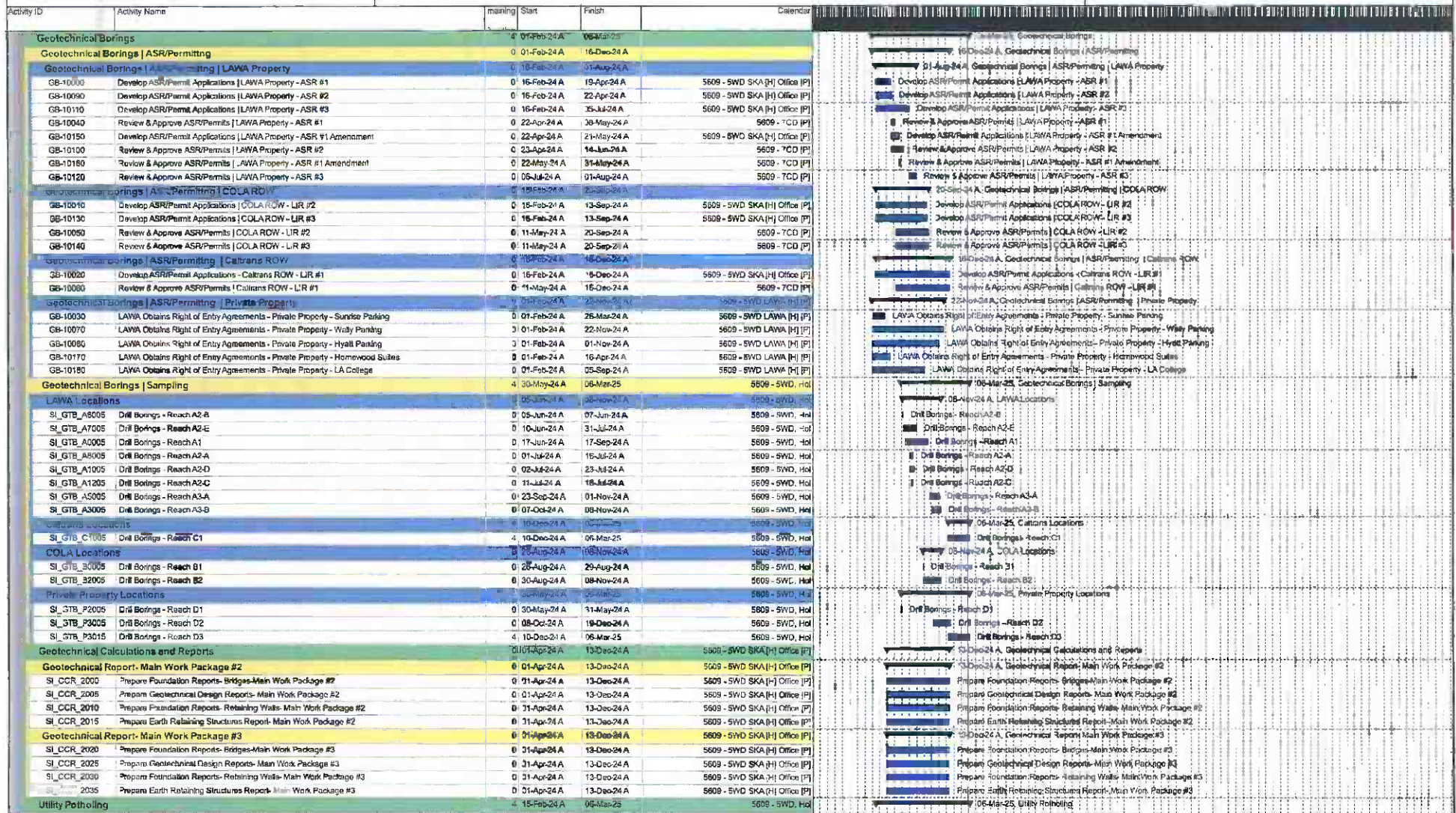
Activity ID	Activity Name	minning	Start	Finish	Calendar	
MS-10020	Concept Development Complete	0	05-Oct-23	05-Dec-23	5609 - TCD [P]	● Concept Development Complete
Design & Precon | P1 | Basis Of Design | Alternatives Analysis | Alt Analysis Report		0	13-Jun-23	04-Dec-23		04-Dec-23 A, Design & Precon | P1 | Basis Of Design | Alternatives Analysis | Alt Analysis Report
DS-10140	Develop Alternate Program Summaries & Scope Narrative	0	13-Jun-23	26-Jul-23	5609 - SWD SKA [H] Office [P]	Develop Alternate Program Summaries & Scope Narrative
LOE-10220	Alternative Analysis Report Duration | For Payment Only	0	13-Jun-23	24-Oct-23	5609 - TCD [P]	Alternative Analysis Report Duration | For Payment Only
DS-10500	Develop Comparative Analysis	0	24-Jul-23	19-Sep-23	5609 - SWD SKA [H] Office [P]	Develop Comparative Analysis
DS-10400	Develop Alternative Preliminary Concept Drawings	0	16-Aug-23	05-Sep-23	5609 - SWD SKA [H] Office [P]	Develop Alternative Preliminary Concept Drawings
DS-10440	Perform QC Review on Draft Alternatives Report	0	28-Aug-23	19-Sep-23	5609 - SWD SKA [H] Office [P]	Perform QC Review on Draft Alternatives Report
DS-10470	Develop Alternative Traffic Modeling & Simulations	0	31-Aug-23	14-Sep-23	5609 - SWD SKA [H] Office [P]	Develop Alternative Traffic Modeling & Simulations
DS-10480	Develop Alternative Phasing & Delivery Strategy	0	31-Aug-23	14-Sep-23	5609 - SWD SKA [H] Office [P]	Develop Alternative Phasing & Delivery Strategy
DS-10520	Finalize Draft Alternatives Report	0	20-Sep-23	26-Sep-23	5609 - SWD SKA [H] Office [P]	Finalize Draft Alternatives Report
DS-10540	Perform QA Review of Draft Alternatives Report | Submit to LAWA	0	25-Sep-23	26-Sep-23	5609 - SWD SKA [H] Office [P]	Perform QA Review of Draft Alternatives Report | Submit to LAWA
DS-10550	LAWA Review & Comment of Draft Alternatives Report Inc Meeting	0	27-Sep-23	11-Oct-23	5609 - SWD LAWA [H] [P]	LAWA Review & Comment of Draft Alternatives Report Inc Meeting
DS-10570	Incorporate Comments & Submit Final Alternatives Analysis Report & Comment Log to LAWA	0	13-Oct-23	17-Nov-23	5609 - SWD SKA [H] Office [P]	Incorporate Comments & Submit Final Alternatives Analysis Report & Comment Log to LAWA
DS-10560	Selection of Preferred Alternatives by LAWA	0	20-Oct-23	20-Oct-23	5609 - SWD LAWA [H] [P]	Selection of Preferred Alternatives by LAWA
DS-10780	LAWA Review & Accept Final Alternatives Analysis Report	0	25-Oct-23	03-Nov-23	5609 - SWD SKA [H] Office [P]	LAWA Review & Accept Final Alternatives Analysis Report
DS-10790	Incorporate Comments & Submit Final Alternative Analysis Report & Comment Log to LAWA - REV01	0	04-Nov-23	17-Nov-23	5609 - SWD SKA [H] Office [P]	Incorporate Comments & Submit Final Alternative Analysis Report & Comment Log to LAWA - REV01
DS-10800	LAWA Review & Accept Final Alternative Analysis Report - REV01	0	18-Nov-23	04-Dec-23	5609 - SWD SKA [H] Office [P]	LAWA Review & Accept Final Alternative Analysis Report - REV01
Design & Precon | P1 | Basis Of Design | Proof of Concept | BOD Technical Report		0	03-Jul-23	03-Jul-23	5609 - SWD SKA [H] Office [P]	03-Jul-23 A, Design & Precon | P1 | Basis Of Design | Proof of Concept | BOD Technical Report
DS-10250	Prepare Estimating Methodology Report	0	03-Jul-23	25-Jul-23	5609 - SWD SKA [H] Office [P]	Prepare Estimating Methodology Report
DS-10340	Conduct Estimating Kick-Off Meeting	0	20-Jul-23	20-Jul-23	5609 - SWD SKA [H] Office [P]	Conduct Estimating Kick-Off Meeting
DS-10390	Perform Quantity Survey for ROM	0	31-Jul-23	22-Aug-23	5609 - SWD SKA [H] Office [P]	Perform Quantity Survey for ROM
DS-10330	Perform Cost Estimating for ROM	0	31-Jul-23	28-Aug-23	5609 - SWD SKA [H] Office [P]	Perform Cost Estimating for ROM
DS-10490	Prepare Basis of Estimate Document for ROM	0	31-Aug-23	31-Aug-23	5609 - SWD SKA [H] Office [P]	Prepare Basis of Estimate Document for ROM
Design & Precon | P1 | Basis Of Design | Proof of Concept		0	03-Jul-23	03-Jul-23	5609 - SWD SKA [H] Office [P]	03-Jul-23 A, Design & Precon | P1 | Basis Of Design | Proof of Concept
Design & Precon | P1 | Basis Of Design | Proof of Concept | BOD Technical Report		0	06-Jun-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	02-Nov-23 A, Design & Precon | P1 | Basis Of Design | Proof of Concept | BOD Technical Report
DS-10540	Prepare BOD Executive Summary	0	08-Jun-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	Prepare BOD Executive Summary
DS-10560	Prepare BOD Project Description	0	08-Jun-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	Prepare BOD Project Description
DS-10580	Prepare BOD Code-Compliance & Applicable Standards	0	08-Jun-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	Prepare BOD Code-Compliance & Applicable Standards
DS-10570	Prepare BOD Existing Conditions	0	08-Jun-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	Prepare BOD Existing Conditions
DS-10580	Prepare BOD Programming	0	08-Jun-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	Prepare BOD Programming
DS-10590	Prepare BOD Performance Requirements	0	08-Jun-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	Prepare BOD Performance Requirements
Design & Precon | P1 | Basis Of Design | Proof of Concept | Prelim Implementation Plan		0	26-Sep-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	02-Nov-23 A, Design & Precon | P1 | Basis Of Design | Proof of Concept | Prelim Implementation Plan
DS-10600	Develop Preliminary Implementation Plan	0	26-Sep-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	Develop Preliminary Implementation Plan
Design & Precon | P1 | Basis Of Design | Proof of Concept | Concept Drawing Pkg		0	08-Oct-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	02-Nov-23 A, Design & Precon | P1 | Basis Of Design | Proof of Concept | Concept Drawing Pkg
DS-10580	Finalize Concept Design Drawing Package for Selected Alternative	0	08-Oct-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	Finalize Concept Design Drawing Package for Selected Alternative
Design & Precon | P1 | Basis Of Design | Proof of Concept | Detailed Cost Estimate		0	21-Sep-23	16-Oct-23	5609 - SWD SKA [H] Office [P]	16-Oct-23 A, Design & Precon | P1 | Basis Of Design | Proof of Concept | Detailed Cost Estimate
DS-10590	Perform Quantity Survey on Selected Conceptual Design	0	25-Sep-23	28-Sep-23	5609 - SWD SKA [H] Office [P]	Perform Quantity Survey on Selected Conceptual Design
DS-10780	Develop Cost Estimate on Selected Conceptual Design	0	29-Sep-23	11-Oct-23	5609 - SWD SKA [H] Office [P]	Develop Cost Estimate on Selected Conceptual Design
DS-10770	Prepare Basis of Estimate Documents for Selected Conceptual Design	0	12-Oct-23	18-Oct-23	5609 - SWD SKA [H] Office [P]	Prepare Basis of Estimate Documents for Selected Conceptual Design
Design & Precon | P1 | Basis Of Design | Proof of Concept | Appendices		0	01-Aug-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	02-Nov-23 A, Design & Precon | P1 | Basis Of Design | Proof of Concept | Appendices
DS-10450	Develop Appendices	0	01-Aug-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	Develop Appendices
Design & Precon | P1 | Basis Of Design | Proof of Concept | Proof of Concept Rpt		0	25-Sep-23	05-Mar-24	5609 - SWD SKA [H] Office [P]	05-Mar-24 A, Design & Precon | P1 | Basis Of Design | Proof of Concept | Proof of Concept Rpt
DS-10560	Prepare Draft Proof of Concept Report	0	25-Sep-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	Prepare Draft Proof of Concept Report
DS-10570	Perform QA Review of Draft Proof of Concept Report | Submit to LAWA	0	23-Oct-23	02-Nov-23	5609 - SWD SKA [H] Office [P]	Perform QA Review of Draft Proof of Concept Report | Submit to LAWA
DS-10580	LAWA Review & Comment Draft Proof of Concept Report Inc Meeting	0	03-Nov-23	21-Nov-23	5609 - SWD LAWA [H] [P]	LAWA Review & Comment Draft Proof of Concept Report Inc Meeting
DS-11000	Incorporate Comments & Issue Final Proof of Concept Report Inc Log	0	22-Nov-23	30-Nov-23	5609 - SWD SKA [H] Office [P]	Incorporate Comments & Issue Final Proof of Concept Report Inc Log
DS-11010	LAWA Review & Accept Final Proof of Concept Report	0	01-Dec-23	14-Dec-23	5609 - SWD LAWA [H] [P]	LAWA Review & Accept Final Proof of Concept Report
DS-11840	Incorporate Comments & Issue Final Proof of Concept Report Inc Log - REV01	0	15-Dec-23	18-Jan-24	5609 - SWD SKA [H] Office [P]	Incorporate Comments & Issue Final Proof of Concept Report Inc Log - REV01
DS-11850	LAWA Review & Accept Final Proof of Concept Report - REV01	0	19-Jan-24	15-Feb-24	5609 - SWD LAWA [H] [P]	LAWA Review & Accept Final Proof of Concept Report - REV01
DS-11860	Incorporate Comments & Issue Final Proof of Concept Report Inc Log - REV02	0	16-Feb-24	16-Feb-24	5609 - SWD SKA [H] Office [P]	Incorporate Comments & Issue Final Proof of Concept Report Inc Log - REV02
DS-11870	LAWA Review & Accept Final Proof of Concept Report - REV02	0	19-Feb-24	26-Mar-24	5609 - SWD LAWA [H] [P]	LAWA Review & Accept Final Proof of Concept Report - REV02
Design & Precon | P1 | Basis Of Design | Site Investigation		0	20-Nov-23	20-Nov-23	5609 - SWD SKA [H] Office [P]	20-Nov-23 A, Design & Precon | P1 | Basis Of Design | Site Investigation
Design & Precon | P1 | Basis Of Design | Site Invest | Topography & Utility Survey		0	31-May-23	21-Nov-23		21-Nov-23 A, Design & Precon | P1 | Basis Of Design | Site Invest | Topography & Utility Survey
DS-10500	Prepare 3. Submit Survey Investigation Plan	0	31-May-23	31-Jul-23	5609 - SWD SKA [H] Office [P]	Prepare 3. Submit Survey Investigation Plan
DS-10580	Topo & Utility Survey Duration | For Payment Only	0	31-May-23	21-Nov-23	5609 - TCD [P]	Topo & Utility Survey Duration | For Payment Only
DS-10260	LAWA Review & Conduct Survey Investigation Plan	0	06-Jul-23	27-Jul-23	5609 - TCD [P]	LAWA Review & Conduct Survey Investigation Plan

Actual Work Critical Remaining Work Summary
Remaining Work Milestones

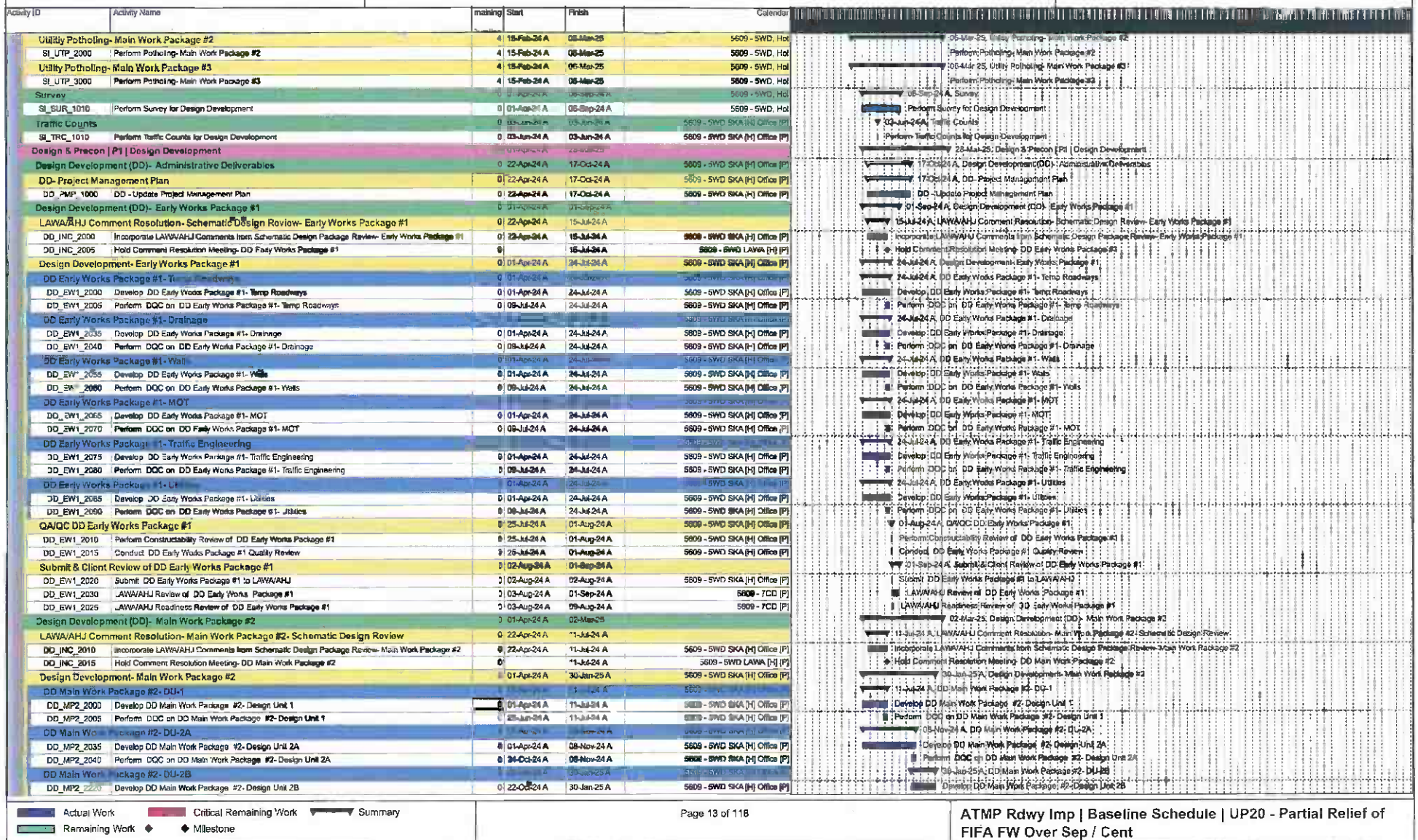
Activity ID	Activity Name	Start	Finish	Calendar	Activity Name	Start	Finish	Calendar
DS-10380	Perform Property & Ground Survey | Prepare 3D Survey Data & Submit	01-Nov-23 A	21-Nov-23 A	5609 - SWD SKA [H] Office [P]	Perform Property & Ground Survey | Prepare 3D Survey Data & Submit	01-Nov-23 A	21-Nov-23 A	5609 - SWD SKA [H] Office [P]
Design & Precon | P1 | Basis Of Design | Site Invest | Pre-Design Property Survey		01-Nov-23 A	30-Nov-23 A	5609 - TCD [P]	Design & Precon | P1 | Basis Of Design | Site Invest | Pre-Design Property Survey	01-Nov-23 A	30-Nov-23 A	5609 - TCD [P]
LOE-10240	Pre-Design Property Survey Duration | For Payment Only	01-Nov-23 A	30-Nov-23 A	5609 - TCD [P]	Pre-Design Property Survey Duration | For Payment Only	01-Nov-23 A	30-Nov-23 A	5609 - TCD [P]
Design & Precon | P1 | Schematic Design		01-Nov-23 A	10-Jun-24 A	5609 - SWD SKA [H] Office [P]	Design & Precon | P1 | Schematic Design	01-Nov-23 A	10-Jun-24 A	5609 - SWD SKA [H] Office [P]
Schematic Design (SD) - Administrative Deliverables		01-Nov-23 A	10-Jun-24 A	5609 - SWD SKA [H] Office [P]	Schematic Design (SD) - Administrative Deliverables	01-Nov-23 A	10-Jun-24 A	5609 - SWD SKA [H] Office [P]
SD - Application for Airspace Determination		01-Nov-23 A	21-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - Application for Airspace Determination	01-Nov-23 A	21-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - AAD_1000	Submit Application & Secure Airspace Determination	01-Nov-23 A	21-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - AAD_1000	01-Nov-23 A	21-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - Project Management Plan		01-Nov-23 A	21-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - Project Management Plan	01-Nov-23 A	21-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - PMP_1000	Update Project Management Plan to Include TD #2	01-Nov-23 A	21-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - PMP_1000	01-Nov-23 A	21-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - Phasing & Logistics Plan Support		01-Nov-23 A	21-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - Phasing & Logistics Plan Support	01-Nov-23 A	21-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - PHL_1000	Prepare & Submit Phasing and Logistics Support Plan	01-Nov-23 A	21-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - PHL_1000	01-Nov-23 A	21-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - Cost Estimate Support		01-Nov-23 A	10-Jun-24 A	5609 - SWD SKA [H] Office [P]	SD - Cost Estimate Support	01-Nov-23 A	10-Jun-24 A	5609 - SWD SKA [H] Office [P]
SD - CES_1000	HNTR Support of Cost Estimating Efforts	01-Nov-23 A	10-Jun-24 A	5609 - SWD SKA [H] Office [P]	SD - CES_1000	01-Nov-23 A	10-Jun-24 A	5609 - SWD SKA [H] Office [P]
SD - Cost Estimating		01-Nov-23 A	10-Jun-24 A	5609 - SWD SKA [H] Office [P]	SD - Cost Estimating	01-Nov-23 A	10-Jun-24 A	5609 - SWD SKA [H] Office [P]
SD - CE_1000	SD - Perform Quantity Surveys	01-Nov-23 A	17-Apr-24 A	5609 - SWD SKA [H] Office [P]	SD - CE_1000	01-Nov-23 A	17-Apr-24 A	5609 - SWD SKA [H] Office [P]
SD - CE_1010	SD - Conduct Quantity Reconciliation	01-Nov-23 A	19-Apr-24 A	5609 - SWD SKA [H] Office [P]	SD - CE_1010	01-Nov-23 A	19-Apr-24 A	5609 - SWD SKA [H] Office [P]
SD - CE_1020	SD - Perform Cost Estimating	01-Nov-23 A	21-May-24 A	5609 - SWD SKA [H] Office [P]	SD - CE_1020	01-Nov-23 A	21-May-24 A	5609 - SWD SKA [H] Office [P]
SD - CE_1030	SD - Internal & JV Review(s) of Cost Estimate	01-Nov-23 A	30-May-24 A	5609 - SWD SKA [H] Office [P]	SD - CE_1030	01-Nov-23 A	30-May-24 A	5609 - SWD SKA [H] Office [P]
SD - CE_1040	SD - Perform Post-Review Adjustments & Submit Cost Estimate	01-Nov-23 A	10-Jun-24 A	5609 - SWD SKA [H] Office [P]	SD - CE_1040	01-Nov-23 A	10-Jun-24 A	5609 - SWD SKA [H] Office [P]
Schematic Design (SD) Design Package		01-Nov-23 A	19-Apr-24 A	5609 - SWD SKA [H] Office [P]	Schematic Design (SD) Design Package	01-Nov-23 A	19-Apr-24 A	5609 - SWD SKA [H] Office [P]
Schematic Design-Innovation Concepts		01-Nov-23 A	15-Mar-24 A	5609 - SWD SKA [H] Office [P]	Schematic Design-Innovation Concepts	01-Nov-23 A	15-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - INC_1000	SD - Develop Innovation Concepts	01-Nov-23 A	12-Dec-23 A	5609 - SWD SKA [H] Office [P]	SD - INC_1000	01-Nov-23 A	12-Dec-23 A	5609 - SWD SKA [H] Office [P]
SD - INC_1010	SD - Ongoing Innovative Concept Development & Discussions	01-Nov-23 A	15-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - INC_1010	01-Nov-23 A	15-Mar-24 A	5609 - SWD SKA [H] Office [P]
Schematic Design-Model of Existing & Proposed Condition		01-Nov-23 A	15-Mar-24 A	5609 - SWD SKA [H] Office [P]	Schematic Design-Model of Existing & Proposed Condition	01-Nov-23 A	15-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - MOD_1000	SD - Develop Model of Existing & Proposed Conditions	01-Nov-23 A	15-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - MOD_1000	01-Nov-23 A	15-Mar-24 A	5609 - SWD SKA [H] Office [P]
Schematic Design-Design Drawings, Calculations & Reports		01-Nov-23 A	19-Apr-24 A	5609 - SWD SKA [H] Office [P]	Schematic Design-Design Drawings, Calculations & Reports	01-Nov-23 A	19-Apr-24 A	5609 - SWD SKA [H] Office [P]
SD - Drawings, Calcs, Reports-Roadway		01-Nov-23 A	04-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - Drawings, Calcs, Reports-Roadway	01-Nov-23 A	04-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1005	SD - Develop Roadway CAD Drawings	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1005	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1205	SD - Develop Priority Roadway Geometry	01-Nov-23 A	27-Oct-23 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1205	01-Nov-23 A	27-Oct-23 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1285	SD - Develop Secondary Roadway Geometry	01-Nov-23 A	15-Jan-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1285	01-Nov-23 A	15-Jan-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1295	SD - Priority Vertical Confirmation	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1295	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1215	SD - Secondary Vertical Profile Confirmation	01-Nov-23 A	25-Jan-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1215	01-Nov-23 A	25-Jan-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1305	SD - Priority Cross-Section Validation	01-Nov-23 A	10-Jan-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1305	01-Nov-23 A	10-Jan-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1225	SD - Secondary Cross-Section Validation	01-Nov-23 A	25-Jan-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1225	01-Nov-23 A	25-Jan-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1235	SD - Preliminary IDR - Traffic & Structures	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1235	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1010	SD - Perform Roadway DOC	01-Nov-23 A	04-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1010	01-Nov-23 A	04-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - Drawings, Calcs, Reports-Structures		01-Nov-23 A	11-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - Drawings, Calcs, Reports-Structures	01-Nov-23 A	11-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1020	SD - Develop Structures CAD Drawings	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1020	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1245	SD - Bridge Widening - Evaluation & Structure Layout	01-Nov-23 A	28-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1245	01-Nov-23 A	28-Feb-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1255	SD - New Bridges - Detail & Layout	01-Nov-23 A	18-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1255	01-Nov-23 A	18-Feb-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1265	SD - Perform Seismic Evaluation - Primary Bridges	01-Nov-23 A	28-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1265	01-Nov-23 A	28-Feb-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1275	SD - Preliminary IDR - Traffic & Roadway	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1275	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1025	SD - Perform Structures DOC	01-Nov-23 A	11-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1025	01-Nov-23 A	11-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - Drawings, Calcs, Reports-Walls		01-Nov-23 A	11-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - Drawings, Calcs, Reports-Walls	01-Nov-23 A	11-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1035	SD - Develop Wall CAD Drawings	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1035	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1210	SD - Develop Wall Layout & Profiles	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1210	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1230	SD - Seismic Evaluation - Walls	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1230	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1220	SD - Project Specific Wall Details	01-Nov-23 A	31-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1220	01-Nov-23 A	31-Feb-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1040	SD - Perform Walls DOC	01-Nov-23 A	11-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1040	01-Nov-23 A	11-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - Drawings, Calcs, Reports-MOT		01-Nov-23 A	04-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - Drawings, Calcs, Reports-MOT	01-Nov-23 A	04-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1045	SD - Develop MOT Design	01-Nov-23 A	04-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1045	01-Nov-23 A	04-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1050	SD - Develop MOT CAD Drawings	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1050	01-Nov-23 A	23-Feb-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1055	SD - Perform MOT DOC	01-Nov-23 A	04-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1055	01-Nov-23 A	04-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - Drawings, Calcs, Reports-Drainage		01-Nov-23 A	11-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - Drawings, Calcs, Reports-Drainage	01-Nov-23 A	11-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1065	SD - Develop Drainage CAD Drawings	01-Nov-23 A	11-Mar-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1065	01-Nov-23 A	11-Mar-24 A	5609 - SWD SKA [H] Office [P]
SD - DCR_1240	SD - Site Hydrology Study	01-Nov-23 A	01-Feb-24 A	5609 - SWD SKA [H] Office [P]	SD - DCR_1240	01-Nov-23 A	01-Feb-24 A	5609 - SWD SKA [H] Office [P]

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone





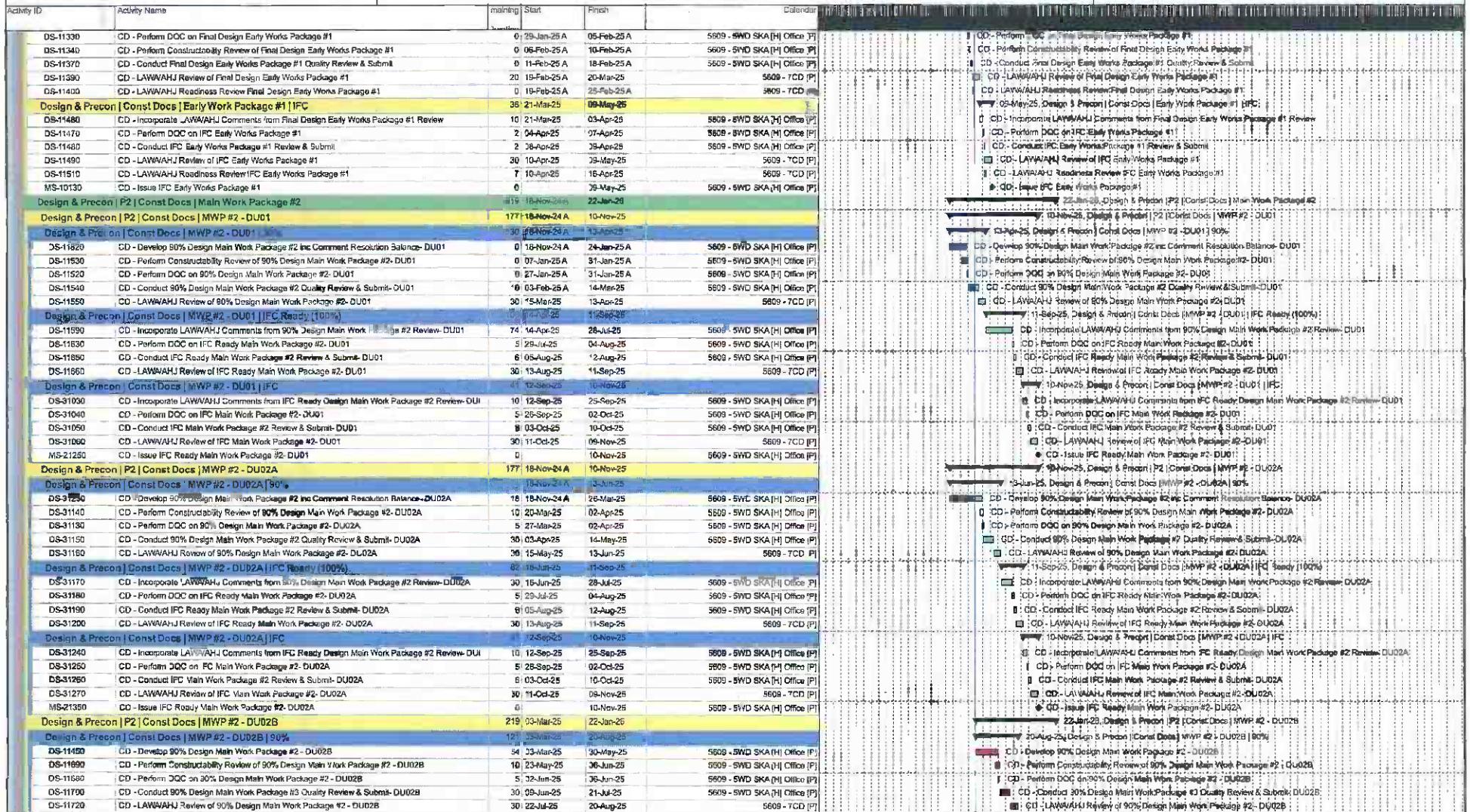
Actual Work Critical Remaining Work Summary
 Remaining Work Milestone



Activity ID	Activity Name	Duration	Start	Finish	Calendar	
DD_MP2_2230	Perform DQC on DD Main Work Package #2-Design Unit 2B	0	16-Jan-24	30-Jan-24	5609 - SWD SKA [H] Office [P]	Perform DQC on DD Main Work Package #2-Design Unit 2B
DD_MP2_2045	Develop DD Main Work Package #2-Project Wide 1	0	01-Apr-24	17-Oct-24	5609 - SWD SKA [H] Office [P]	Develop DD Main Work Package #2-Project Wide 1
DD_MP2_2050	Perform DQC on DD Main Work Package #2-Project Wide 1	0	18-Oct-24	07-Nov-24	5609 - SWD SKA [H] Office [P]	Perform DQC on DD Main Work Package #2-Project Wide 1
DD Main Work Package #2- DU-5					5609 - SWD SKA [H] Office [P]	Develop DD Main Work Package #2-Design Unit 5
DD_MP2_2055	Develop DD Main Work Package #2-Design Unit 5	0	01-Apr-24	12-Sep-24	5609 - SWD SKA [H] Office [P]	Perform DQC on DD Main Work Package #2-Design Unit 5
DD_MP2_2060	Perform DQC on DD Main Work Package #2-Design Unit 5	0	29-May-24	12-Sep-24	5609 - SWD SKA [H] Office [P]	
QA/QC DD Main Work Package #2					5609 - SWD SKA [H] Office [P]	
QA/QC DD Main Work Package #2 - DU-1					5609 - SWD SKA [H] Office [P]	
DD_MP2_2010	Perform Constructability Review of DD Main Work Package #2 - DU-1	0	12-Jul-24	18-Jul-24	5609 - SWD SKA [H] Office [P]	
DD_MP2_2015	Conduct DD Main Work Package #2 Quality Review - DU-1	0	12-Jul-24	25-Jul-24	5609 - SWD SKA [H] Office [P]	
QA/QC DD Main Work Package #2 - DU-2A					5609 - SWD SKA [H] Office [P]	
DD_MP2_2070	Perform Constructability Review of DD Main Work Package #2 - DU-2A	0	15-Oct-24	17-Nov-24	5609 - SWD SKA [H] Office [P]	
DD_MP2_2080	Conduct DD Main Work Package #2 Quality Review - DU-2A	0	15-Oct-24	14-Nov-24	5609 - SWD SKA [H] Office [P]	
QA/QC DD Main Work Package #2 - DU-2B					5609 - SWD SKA [H] Office [P]	
DD_MP2_2250	Conduct DD Main Work Package #2 Quality Review - DU-2B	0	17-Jan-25	30-Jan-25	5609 - SWD SKA [H] Office [P]	
DD_MP2_2240	Perform Constructability Review of DD Main Work Package #2 - DU-2B	0	28-Jan-25	30-Jan-25	5609 - SWD SKA [H] Office [P]	
QA/QC DD Main Work Package #2 - PW-1					5609 - SWD SKA [H] Office [P]	
DD_MP2_2090	Perform Constructability Review of DD Main Work Package #2 - PW-1	0	18-Oct-24	07-Nov-24	5609 - SWD SKA [H] Office [P]	
DD_MP2_2100	Conduct DD Main Work Package #2 Quality Review - PW-1	0	18-Oct-24	13-Nov-24	5609 - SWD SKA [H] Office [P]	
QA/QC DD Main Work Package #2 - DU-5					5609 - SWD SKA [H] Office [P]	
DD_MP2_2110	Perform Constructability Review of DD Main Work Package #2 - DU-5	0	13-Sep-24	19-Sep-24	5609 - SWD SKA [H] Office [P]	
DD_MP2_2120	Conduct DD Main Work Package #2 Quality Review - DU-5	0	13-Sep-24	19-Sep-24	5609 - SWD SKA [H] Office [P]	
Submit & Client Review of DD Main Work Package #2					5609 - SWD SKA [H] Office [P]	
Submit & Client Review of DD Main Work Package #2 - DU-1					5609 - SWD SKA [H] Office [P]	
DD_MP2_2020	Submit DD Main Work Package #2 to LAWVAHJ - DU-1	0	26-Jul-24	26-Jul-24	5609 - SWD SKA [H] Office [P]	
DD_MP2_2030	LAWVAHJ Review of DD Main Work Package #2 - DU-1	0	27-Jul-24	25-Aug-24	5609 - 7CD [P]	
DD_MP2_2025	LAWVAHJ Readiness Review of DD Main Work Package #2 - DU-1	0	27-Jul-24	02-Aug-24	5609 - 7CD [P]	
Submit & Client Review of DD Main Work Package #2 - DU-2A					5609 - 7CD [P]	
DD_MP2_2130	Submit DD Main Work Package #2 to LAWVAHJ - DU-2A	0	15-Nov-24	15-Nov-24	5609 - SWD SKA [H] Office [P]	
DD_MP2_2140	LAWVAHJ Review of DD Main Work Package #2 - DU-2A	0	16-Nov-24	16-Dec-24	5609 - 7CD [P]	
DD_MP2_2150	LAWVAHJ Readiness Review of DD Main Work Package #2 - DU-2A	0	16-Nov-24	22-Nov-24	5609 - 7CD [P]	
Submit & Client Review of DD Main Work Package #2 - DU-2B					5609 - SWD SKA [H] Office [P]	
DD_MP2_2260	Submit DD Main Work Package #2 to LAWVAHJ - DU-2B	0	31-Jan-25	31-Jan-25	5609 - 7CD [P]	
DD_MP2_2270	LAWVAHJ Review of DD Main Work Package #2 - DU-2B	0	01-Feb-25	02-Mar-25	5609 - 7CD [P]	
DD_MP2_2280	LAWVAHJ Readiness Review of DD Main Work Package #2 - DU-2B	0	01-Feb-25	07-Feb-25	5609 - 7CD [P]	
Submit & Client Review of DD Main Work Package #2 - PW-1					5609 - 7CD [P]	
DD_MP2_2190	Submit DD Main Work Package #2 to LAWVAHJ - PW-1A	0	14-Nov-24	14-Nov-24	5609 - SWD SKA [H] Office [P]	
DD_MP2_2200	LAWVAHJ Review of DD Main Work Package #2 - PW-1A	0	15-Nov-24	27-Jan-25	5609 - 7CD [P]	
DD_MP2_2210	LAWVAHJ Readiness Review of DD Main Work Package #2 - PW-1A	0	15-Nov-24	21-Nov-24	5609 - 7CD [P]	
DD_MP2_2290	Submit DD Main Work Package #2 to LAWVAHJ - PW-1B	0	15-Jan-25	15-Jan-25	5609 - SWD SKA [H] Office [P]	
DD_MP2_2300	LAWVAHJ Review of DD Main Work Package #2 - PW-1B	0	16-Jan-25	18-Feb-25	5609 - 7CD [P]	
DD_MP2_2310	LAWVAHJ Readiness Review of DD Main Work Package #2 - PW-1B	0	16-Jan-25	22-Jan-25	5609 - 7CD [P]	
Submit & Client Review of DD Main Work Package #2 - DU-5					5609 - SWD SKA [H] Office [P]	
DD_MP2_2160	Submit DD Main Work Package #2 to LAWVAHJ - DU-5	0	20-Sep-24	20-Sep-24	5609 - SWD SKA [H] Office [P]	
DD_MP2_2170	LAWVAHJ Review of DD Main Work Package #2 - DU-5	0	21-Sep-24	20-Oct-24	5609 - 7CD [P]	
DD_MP2_2180	LAWVAHJ Readiness Review of DD Main Work Package #2 - DU-5	0	21-Sep-24	27-Sep-24	5609 - 7CD [P]	
Design Development (DD)- Main Work Package #3					5609 - SWD SKA [H] Office [P]	
LAWVAHJ Comment Resolution - Schematic Design Review- Main Work Package #3					5609 - SWD SKA [H] Office [P]	
DD_INC_2020	Incorporate LAWVAHJ Comments from Schematic Design Package Review- Main Work Package #3	0	22-Apr-24	06-Aug-24	5609 - SWD SKA [H] Office [P]	
DD_INC_2025	Hold Comment Response Meeting- DD Main Work Package #3	0	08-Aug-24	08-Aug-24	5609 - SWD SKA [H] Office [P]	
Design Development- Main Work Package #3					5609 - SWD SKA [H] Office [P]	
DD Main Work Package #3- DU-3					5609 - SWD SKA [H] Office [P]	
DD_MP3_2045	Develop DD Main Work Package #3- DU-3	0	01-Apr-24	08-Aug-24	5609 - SWD SKA [H] Office [P]	
DD_MP3_2050	Perform DQC on DD Main Work Package #3- DU-3	0	24-Jul-24	08-Aug-24	5609 - SWD SKA [H] Office [P]	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Start	Finish	Calendar
DD Main Work Package #3 - DU-4				5809 - SWD SKA [H] Office [P]
DD_MP3_2000	Develop DD Main Work Package #3 - DU-4	01-Apr-24	30-Sep-24	5809 - SWD SKA [H] Office [P]
DD_MP3_2005	Perform DD Main Work Package #3 - DU-4	01-Sep-24	30-Sep-24	5809 - SWD SKA [H] Office [P]
DD Main Work Package #3 - PB-1				5809 - SWD SKA [H] Office [P]
DD_MP3_2035	Develop DD Main Work Package #3 - PB-1	01-Apr-24	11-Oct-24	5809 - SWD SKA [H] Office [P]
DD_MP3_2040	Perform DD Main Work Package #3 - PB-1	01-Oct-24	25-Oct-24	5809 - SWD SKA [H] Office [P]
QA/QC DD Main Work Package #3				5809 - SWD SKA [H] Office [P]
QA/QC DD Main Work Package #3 - DU-3				5809 - SWD SKA [H] Office [P]
DD_MP3_2070	Perform Constructability Review of DD Main Work Package #3 - DU-3	01-Aug-24	13-Aug-24	5809 - SWD SKA [H] Office [P]
DD_MP3_2080	Conduct DD Main Work Package #3 Quality Review - DU-3	01-Aug-24	13-Aug-24	5809 - SWD SKA [H] Office [P]
QA/QC DD Main Work Package #3 - DU-4				5809 - SWD SKA [H] Office [P]
DD_MP3_2070	Perform Constructability Review of DD Main Work Package #3 - DU-4	01-Sep-24	11-Oct-24	5809 - SWD SKA [H] Office [P]
DD_MP3_2075	Conduct DD Main Work Package #3 Quality Review - DU-4	01-Sep-24	11-Oct-24	5809 - SWD SKA [H] Office [P]
QA/QC DD Main Work Package #3 - PB-1				5809 - SWD SKA [H] Office [P]
DD_MP3_2110	Perform Constructability Review of DD Main Work Package #3 - PB-1	01-Oct-24	24-Oct-24	5809 - SWD SKA [H] Office [P]
DD_MP3_2120	Conduct DD Main Work Package #3 Quality Review - PB-1	01-Oct-24	24-Nov-24	5809 - SWD SKA [H] Office [P]
Submit & Client Review of DD Main Work Package #3				5809 - SWD SKA [H] Office [P]
Submit & Client Review of DD Main Work Package #3 - DU-3				5809 - SWD SKA [H] Office [P]
DD_MP3_2020	Submit DD Main Work Package #3 to LANA/HAJ - DU-3	01-Aug-24	16-Aug-24	5809 - SWD SKA [H] Office [P]
DD_MP3_2030	LANA/HAJ Review of DD Main Work Package #3 - DU-3	01-Aug-24	13-Sep-24	5809 - TCD [P]
DD_MP3_2025	LANA/HAJ Readiness Review of DD Main Work Package #3 - DU-3	01-Aug-24	23-Aug-24	5809 - TCD [P]
Submit & Client Review of DD Main Work Package #3 - DU-4				5809 - SWD SKA [H] Office [P]
DD_MP3_2130	Submit DD Main Work Package #3 to LANA/HAJ - DU-4	01-Oct-24	16-Oct-24	5809 - SWD SKA [H] Office [P]
DD_MP3_2140	LANA/HAJ Review of DD Main Work Package #3 - DU-4	01-Oct-24	22-Nov-24	5809 - TCD [P]
DD_MP3_2150	LANA/HAJ Readiness Review of DD Main Work Package #3 - DU-4	01-Oct-24	24-Oct-24	5809 - TCD [P]
Submit & Client Review of DD Main Work Package #3 - PB-1				5809 - SWD SKA [H] Office [P]
DD_MP3_2150	Submit DD Main Work Package #3 to LANA/HAJ - PB-1	01-Nov-24	13-Nov-24	5809 - SWD SKA [H] Office [P]
DD_MP3_2200	LANA/HAJ Review of DD Main Work Package #3 - PB-1	01-Nov-24	16-Dec-24	5809 - TCD [P]
DD_MP3_2210	LANA/HAJ Readiness Review of DD Main Work Package #3 - PB-1	01-Nov-24	20-Nov-24	5809 - TCD [P]
Design Development Cost Estimating - EWP#1				5809 - SWD SKA [H] Office [P]
DD-CE-10080	DD - Perform Quantity Survey EWP#1	01-Aug-24	16-Aug-24	5809 - SWD SKA [H] Office [P]
DD-CE-10090	DD - Perform Quantity Reconciliation EWP#1	01-Aug-24	24-Aug-24	5809 - SWD SKA [H] Office [P]
DD-CE-10110	DD - Perform Cost Estimating EWP#1	01-Aug-24	16-Sep-24	5809 - SWD SKA [H] Office [P]
DD-CE-10140	DD - Conduct Internal & JV Reviews EWP#1	01-Sep-24	20-Sep-24	5809 - SWD SKA [H] Office [P]
DD-CE-10160	DD - Perform Post-Review Adjustments/Submit EWP#1	01-Sep-24	02-Dec-24	5809 - SWD SKA [H] Office [P]
Design Development Cost Estimating - MWPR2 & MWPR3				5809 - SWD SKA [H] Office [P]
DD-CE-10200	DD - Perform Quantity Survey MWPR2 & MWPR3	01-Nov-24	08-Jan-25	5809 - SWD SKA [H] Office [P]
DD-CE-10210	DD - Perform Quantity Reconciliation MWPR2 & MWPR3	01-Nov-24	10-Jan-25	5809 - SWD SKA [H] Office [P]
DD-CE-10220	DD - Perform Cost Estimating MWPR2 & MWPR3	01-Nov-24	07-Feb-25	5809 - SWD SKA [H] Office [P]
DD-CE-10230	DD - Conduct Internal & JV Reviews MWPR2 & MWPR3	01-Nov-24	16-Mar-25	5809 - SWD SKA [H] Office [P]
DD-CE-10240	DD - Perform Post-Review Adjustments/Submit MWPR2 & MWPR3	01-Nov-24	20-Mar-25	5809 - SWD SKA [H] Office [P]
Design & Preconstruction Phase 1 | Sunrise Electrical Service Relocation Design				5809 - SWD SKA [H] Office [P]
SES-10000	SERD - Develop & Submit 90% Design Package	01-Jun-24	11-Sep-24	5809 - SWD SKA [H] Office [P]
SES-10010	SERD - LANA Review & Comment 90% Design Package	01-Sep-24	10-Oct-24	5809 - TCD [P]
SES-10020	SERD - Develop & Submit 100% IFC Ready Package	01-Oct-24	01-Nov-24	5809 - SWD SKA [H] Office [P]
SES-10030	SERD - LANA Review & Comment 100% IFC Ready Package	01-Nov-24	30-Dec-24	5809 - TCD [P]
SES-10040	SERD - Prepare Required Permits for Relocation	01-Dec-24	30-May-25	5809 - TCD [P]
SES-10050	SERD - Prepare & Submit IFC Documents	01-Dec-24	10-Jan-25	5809 - SWD SKA [H] Office [P]
Design & Preconstruction Phase 2				5809 - SWD SKA [H] Office [P]
Design & Preconstruction Phase 2 | Construction Documents				5809 - SWD SKA [H] Office [P]
Design & Preconstruction Phase 2 | Const Docs | Early Work Package #1				5809 - SWD SKA [H] Office [P]
Design & Preconstruction Phase 2 | Early Work Package #1 | 90%				5809 - SWD SKA [H] Office [P]
DS-11210	CD - Develop Final Design Early Work Package #1 inc Comment Resolution to 90% Docs	01-Aug-24	06-Dec-24	5809 - SWD SKA [H] Office [P]
DS-11220	CD - LANA/HAJ Review of 90% Early Work Package #1	01-Dec-24	05-Jan-25	5809 - TCD [P]
Design & Preconstruction Phase 2 | Const Docs | Early Work Package #1 | 100%				5809 - SWD SKA [H] Office [P]
DS-11830	CD - Develop Final Design Early Work Package #1 inc Comment Resolution Balance	01-Jan-25	28-Jan-25	5809 - SWD SKA [H] Office [P]



Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar
Design & Precon | Const Docs | MWPP #2 - DU02B | IFC Ready (100%)					
DS-11770	CD - Incorporate LAWA/HAU Comments from 90% Design Main Work Package #3 Review- DU02B	32	21-Aug-25	06-Oct-25	5609 - SWD SKA [H] Office [P]
DS-11780	CD - Perform DQC on IFC Ready Main Work Package #2 - DU02B	8	07-Oct-25	13-Oct-25	5609 - SWD SKA [H] Office [P]
DS-11790	CD - Conduct IFC Ready Main Work Package #3 Review & Submit- DU02B	6	14-Oct-25	21-Oct-25	5609 - SWD SKA [H] Office [P]
DS-11800	CD - LAWA/HAU Review of IFC Ready Main Work Package #2 - DU02B	30	22-Oct-25	20-Nov-25	5609 - 7CD [P]
Design & Precon | Const Docs | MWPP #2 - DU02B | IFC					
DS-31080	CD - Incorporate LAWA/HAU Comments from IFC Ready Design Main Work Package #3 Review- DU02B	10	21-Nov-25	06-Dec-25	5609 - SWD SKA [H] Office [P]
DS-31090	CD - Perform DQC on IFC Main Work Package #2 - DU02B	8	06-Dec-25	15-Dec-25	5609 - SWD SKA [H] Office [P]
DS-31100	CD - Conduct IFC Main Work Package #3 Review & Submit- DU02B	6	15-Dec-25	23-Dec-25	5609 - SWD SKA [H] Office [P]
DS-31110	CD - LAWA/HAU Review of IFC Main Work Package #2 - DU02B	30	24-Dec-25	22-Jan-26	5609 - 7CD [P]
MS-10250	CD - Issue IFC Main Work Package #2 - DU02B	0	22-Jan-26	22-Jan-26	5609 - 7CD [P]
Design & Precon | P2 | Const Docs | MWPP #2 - DU03					
177	18-Nov-24 A	10-Nov-25			
Design & Precon | Const Docs | MWPP #2 - DU03 | 90%					
DS-31380	CD - Develop 90% Design Main Work Package #2 Inc Comment Resolution Balance- DU03	0	11-Nov-24 A	11-Feb-25 A	5609 - SWD SKA [H] Office [P]
DS-31300	CD - Perform Constructability Review of 90% Design Main Work Package #2- DU03	0	10-Feb-25 A	26-Feb-25 A	5609 - SWD SKA [H] Office [P]
DS-31310	CD - Conduct 90% Design Main Work Package #2 Quality Review & Submit- DU03	22	19-Feb-25 A	01-Apr-25	5609 - SWD SKA [H] Office [P]
DS-31290	CD - Perform DQC on 90% Design Main Work Package #2- DU03	8	24-Feb-25 A	07-Mar-25	5609 - SWD SKA [H] Office [P]
DS-31320	CD - LAWA/HAU Review of 90% Design Main Work Package #2- DU03	30	02-Apr-25	01-May-25	5609 - 7CD [P]
Design & Precon | Const Docs | MWPP #2 - DU03 | IFC Ready (100%)					
DS-31330	CD - Incorporate LAWA/HAU Comments from 90% Design Main Work Package #2 Review- DU03	60	02-May-25	28-Jul-25	5609 - SWD SKA [H] Office [P]
DS-31340	CD - Perform DQC on IFC Ready Main Work Package #2- DU03	8	29-Jul-25	04-Aug-25	5609 - SWD SKA [H] Office [P]
DS-31350	CD - Conduct IFC Ready Main Work Package #2 Review & Submit- DU03	8	05-Aug-25	12-Aug-25	5609 - SWD SKA [H] Office [P]
DS-31360	CD - LAWA/HAU Review of IFC Ready Main Work Package #2- DU03	30	13-Aug-25	11-Sep-25	5609 - 7CD [P]
Design & Precon | Const Docs | MWPP #2 - DU03 | IFC					
DS-31400	CD - Incorporate LAWA/HAU Comments from IFC Ready Design Main Work Package #2 Review- DU03	10	12-Sep-25	28-Sep-25	5609 - SWD SKA [H] Office [P]
DS-31410	CD - Perform DQC on IFC Main Work Package #2- DU03	8	26-Sep-25	02-Oct-25	5609 - SWD SKA [H] Office [P]
DS-31420	CD - Conduct IFC Main Work Package #2 Review & Submit- DU03	6	03-Oct-25	10-Oct-25	5609 - SWD SKA [H] Office [P]
DS-31430	CD - LAWA/HAU Review of IFC Main Work Package #2- DU03	30	11-Oct-25	08-Nov-25	5609 - 7CD [P]
MS-21350	CD - Issue IFC Ready Main Work Package #2- DU03	0	10-Nov-25	10-Nov-25	5609 - SWD SKA [H] Office [P]
Design & Precon | P2 | Const Docs | MWPP #2 - DU04A					
161	18-Nov-24 A	11-Nov-25			
Design & Precon | Const Docs | MWPP #2 - DU04A | 90%					
DS-31550	CD - Develop 90% Design Main Work Package #2 Inc Comment Resolution Balance- DU04A	0	18-Nov-24 A	27-Feb-25 A	5609 - SWD SKA [H] Office [P]
DS-31480	CD - Perform Constructability Review of 90% Design Main Work Package #2- DU04A	10	24-Feb-25 A	14-Mar-25	5609 - SWD SKA [H] Office [P]
DS-31490	CD - Perform DQC on 90% Design Main Work Package #2- DU04A	5	23-Mar-25	07-Apr-25	5609 - SWD SKA [H] Office [P]
DS-31470	CD - Conduct 90% Design Main Work Package #2 Quality Review & Submit- DU04A	30	17-Mar-25	25-Apr-25	5609 - SWD SKA [H] Office [P]
DS-31480	CD - LAWA/HAU Review of 90% Design Main Work Package #2- DU04A	30	26-Apr-25	25-May-25	5609 - 7CD [P]
Design & Precon | Const Docs | MWPP #2 - DU04A | IFC Ready (100%)					
DS-31490	CD - Incorporate LAWA/HAU Comments from 90% Design Main Work Package #2 Review- DU04A	49	27-May-25	24-Aug-25	5609 - SWD SKA [H] Office [P]
DS-31500	CD - Perform DQC on IFC Ready Main Work Package #2- DU04A	5	05-Aug-25	11-Aug-25	5609 - SWD SKA [H] Office [P]
DS-31510	CD - Conduct IFC Ready Main Work Package #2 Review & Submit- DU04A	6	13-Aug-25	19-Aug-25	5609 - SWD SKA [H] Office [P]
DS-31520	CD - LAWA/HAU Review of IFC Ready Main Work Package #2- DU04A	30	20-Aug-25	18-Sep-25	5609 - 7CD [P]
Design & Precon | Const Docs | MWPP #2 - DU04A | IFC					
DS-31560	CD - Incorporate LAWA/HAU Comments from IFC Ready Design Main Work Package #2 Review- DU04A	10	10-Sep-25	02-Oct-25	5609 - SWD SKA [H] Office [P]
DS-31570	CD - Perform DQC on IFC Main Work Package #2- DU04A	5	03-Oct-25	09-Oct-25	5609 - SWD SKA [H] Office [P]
DS-31580	CD - Conduct IFC Main Work Package #2 Review & Submit- DU04A	6	10-Oct-25	17-Oct-25	5609 - SWD SKA [H] Office [P]
DS-31590	CD - LAWA/HAU Review of IFC Main Work Package #2- DU04A	30	18-Oct-25	16-Nov-25	5609 - 7CD [P]
MS-21370	CD - Issue IFC Ready Main Work Package #2- DU04A	0	17-Nov-25	17-Nov-25	5609 - SWD SKA [H] Office [P]
Design & Precon | P2 | Const Docs | MWPP #2 - PB01					
184	17-Dec-24 A	19-Nov-25			
Design & Precon | Const Docs | MWPP #2 - PB01 | 90%					
DS-31710	CD - Develop 90% Design Main Work Package #2 Inc Comment Resolution Balance- PB01	28	17-Dec-24 A	04-Apr-25	5609 - SWD SKA [H] Office [P]
DS-31620	CD - Perform Constructability Review of 90% Design Main Work Package #2- PB01	10	31-Mar-25	11-Apr-25	5609 - SWD SKA [H] Office [P]
DS-31610	CD - Perform DQC on 90% Design Main Work Package #2- PB01	5	07-Apr-25	11-Apr-25	5609 - SWD SKA [H] Office [P]
DS-31530	CD - Conduct 90% Design Main Work Package #2 Quality Review & Submit- PB01	30	14-Apr-25	23-May-25	5609 - SWD SKA [H] Office [P]
DS-31540	CD - LAWA/HAU Review of 90% Design Main Work Package #2- PB01	30	24-May-25	22-Jun-25	5609 - 7CD [P]
Design & Precon | Const Docs | MWPP #2 - PB01 | IFC Ready (100%)					
DS-31550	CD - Incorporate LAWA/HAU Comments from 90% Design Main Work Package #2 Review- PB01	32	23-Jun-25	06-Aug-25	5609 - SWD SKA [H] Office [P]

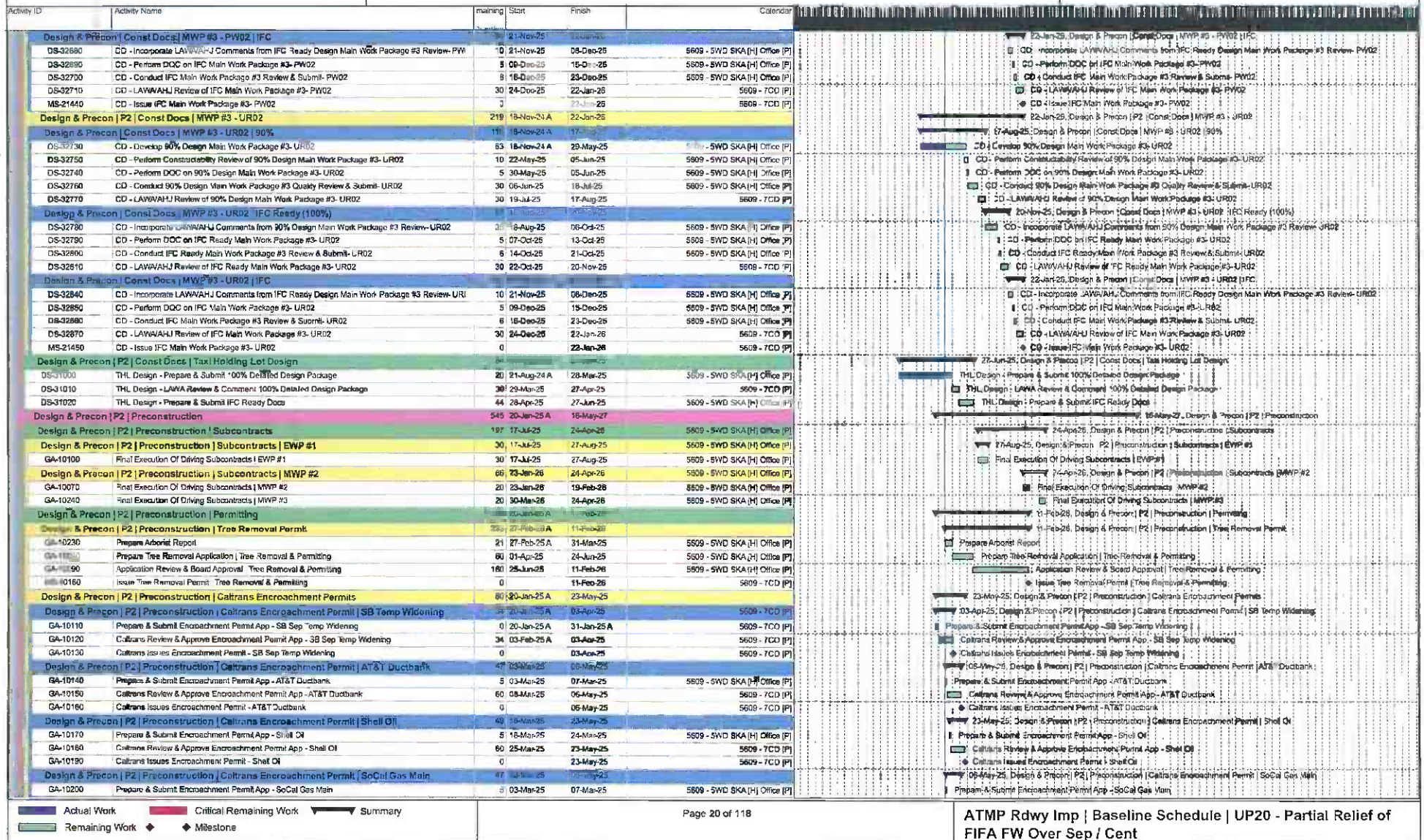
Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	Summary
DS-31660	CD - Perform DQC on IFC Ready Main Work Package #2- PB01	5	07-Aug-25	13-Aug-25	5609 - SWD SKA [H] Office [P]	I - CD - Perform DQC on IFC Ready Main Work Package #2- PB01
DS-31670	CD - Conduct IFC Ready Main Work Package #2 Review & Submit- PB01	6	14-Aug-25	21-Aug-25	5609 - SWD SKA [H] Office [P]	I - CD - Conduct IFC Ready Main Work Package #2 Review & Submit- PB01
DS-31680	CD - LAWA/AHJ Review of IFC Ready Main Work Package #2- PB01	30	22-Aug-25	20-Sep-25	5609 - TCD [P]	I - CD - LAWA/AHJ Review of IFC Ready Main Work Package #2- PB01
DS-31720	CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #2 Review- PB01	10	22-Sep-25	13-Oct-25	5609 - SWD SKA [H] Office [P]	I - CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #2 Review- PB01
DS-31730	CD - Perform DQC on IFC Main Work Package #2- PB01	5	26-Oct-25	10-Oct-25	5609 - SWD SKA [H] Office [P]	I - CD - Perform DQC on IFC Main Work Package #2- PB01
DS-31740	CD - Conduct IFC Main Work Package #2 Review & Submit- PB01	6	13-Oct-25	20-Oct-25	5609 - SWD SKA [H] Office [P]	I - CD - Conduct IFC Main Work Package #2 Review & Submit- PB01
DS-31750	CD - LAWA/AHJ Review of IFC Main Work Package #2- PB01	30	21-Oct-25	19-Nov-25	5609 - TCD [P]	I - CD - LAWA/AHJ Review of IFC Main Work Package #2- PB01
MS-21390	CD - Issue IFC Ready Main Work Package #2- PB01	0	19-Nov-25	19-Nov-25	5609 - SWD SKA [H] Office [P]	I - CD - Issue IFC Ready Main Work Package #2- PB01
Design & Precon [P2] Const Docs [MWP #2 - PW1A]		17	18-Nov-24	10-Nov-25		I - CD - Issue IFC Ready Main Work Package #2- PB01
Design & Precon [Const Docs] [MWP #2 - PW1A] 90%		8	18-Nov-24	31-May-25		I - CD - Issue IFC Ready Main Work Package #2- PB01
DS-31670	CD - Develop 90% Design Main Work Package #2 Inc Comment Resolution Balance- PW1A	9	18-Nov-24	13-Mar-25	5609 - SWD SKA [H] Office [P]	I - CD - Develop 90% Design Main Work Package #2 Inc Comment Resolution Balance- PW1A
DS-31760	CD - Perform Constructability Review of 90% Design Main Work Package #2- PW1A	10	07-Mar-25	20-Mar-25	5609 - SWD SKA [H] Office [P]	I - CD - Perform Constructability Review of 90% Design Main Work Package #2- PW1A
DS-31770	CD - Perform DQC on 90% Design Main Work Package #2- PW1A	6	14-Mar-25	20-Mar-25	5609 - SWD SKA [H] Office [P]	I - CD - Perform DQC on 90% Design Main Work Package #2- PW1A
DS-31790	CD - Conduct 90% Design Main Work Package #2 Quality Review & Submit- PW1A	30	21-Mar-25	01-May-25	5609 - SWD SKA [H] Office [P]	I - CD - Conduct 90% Design Main Work Package #2 Quality Review & Submit- PW1A
DS-31800	CD - LAWA/AHJ Review of 90% Design Main Work Package #2- PW1A	30	02-May-25	31-May-25	5609 - TCD [P]	I - CD - LAWA/AHJ Review of 90% Design Main Work Package #2- PW1A
Design & Precon [Const Docs] [MWP #2 - PW1A] IFC Ready (100%)		7	02-Jun-25	10-Jun-25		I - CD - LAWA/AHJ Review of 90% Design Main Work Package #2- PW1A
DS-31810	CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #2 Review- PW1A	40	02-Jun-25	28-Jul-25	5609 - SWD SKA [H] Office [P]	I - CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #2 Review- PW1A
DS-31820	CD - Perform DQC on IFC Ready Main Work Package #2- PW1A	6	29-Jul-25	04-Aug-25	5609 - SWD SKA [H] Office [P]	I - CD - Perform DQC on IFC Ready Main Work Package #2- PW1A
DS-31830	CD - Conduct IFC Ready Main Work Package #2 Review & Submit- PW1A	6	05-Aug-25	12-Aug-25	5609 - SWD SKA [H] Office [P]	I - CD - Conduct IFC Ready Main Work Package #2 Review & Submit- PW1A
DS-31840	CD - LAWA/AHJ Review of IFC Ready Main Work Package #2- PW1A	30	13-Aug-25	11-Sep-25	5609 - TCD [P]	I - CD - LAWA/AHJ Review of IFC Ready Main Work Package #2- PW1A
Design & Precon [Const Docs] [MWP #2 - PW1A] IFC		4	13-Sep-25	10-Sep-25		I - CD - LAWA/AHJ Review of IFC Ready Main Work Package #2- PW1A
DS-31880	CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #2 Review- PW1A	10	12-Sep-25	25-Sep-25	5609 - SWD SKA [H] Office [P]	I - CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #2 Review- PW1A
DS-31890	CD - Perform DQC on IFC Main Work Package #2- PW1A	5	25-Sep-25	02-Oct-25	5609 - SWD SKA [H] Office [P]	I - CD - Perform DQC on IFC Main Work Package #2- PW1A
DS-31900	CD - Conduct IFC Main Work Package #2 Review & Submit- PW1A	6	03-Oct-25	10-Oct-25	5609 - SWD SKA [H] Office [P]	I - CD - Conduct IFC Main Work Package #2 Review & Submit- PW1A
DS-31910	CD - LAWA/AHJ Review of IFC Main Work Package #2- PW1A	30	11-Oct-25	09-Nov-25	5609 - TCD [P]	I - CD - LAWA/AHJ Review of IFC Main Work Package #2- PW1A
MS-21390	CD - Issue IFC Ready Main Work Package #2- PW1A	0	09-Nov-25	09-Nov-25	5609 - SWD SKA [H] Office [P]	I - CD - Issue IFC Ready Main Work Package #2- PW1A
Design & Precon [P2] Const Docs [MWP #2 - UR01]		177	18-Nov-24	10-Nov-25		I - CD - Issue IFC Ready Main Work Package #2- PW1A
Design & Precon [Const Docs] [MWP #2 - UR01] 90%		8	18-Nov-24	08-Jun-25		I - CD - Issue IFC Ready Main Work Package #2- PW1A
DS-32000	CD - Develop 90% Design Main Work Package #2 Inc Comment Resolution Balance- UR01	15	18-Nov-24	21-Mar-25	5609 - SWD SKA [H] Office [P]	I - CD - Develop 90% Design Main Work Package #2 Inc Comment Resolution Balance- UR01
DS-31940	CD - Perform Constructability Review of 90% Design Main Work Package #2- UR01	10	17-Mar-25	28-Mar-25	5609 - SWD SKA [H] Office [P]	I - CD - Perform Constructability Review of 90% Design Main Work Package #2- UR01
DS-31930	CD - Perform DQC on 90% Design Main Work Package #2- UR01	5	24-Mar-25	28-Mar-25	5609 - SWD SKA [H] Office [P]	I - CD - Perform DQC on 90% Design Main Work Package #2- UR01
DS-31980	CD - Conduct 90% Design Main Work Package #2 Quality Review & Submit- UR01	30	31-Mar-25	09-May-25	5609 - SWD SKA [H] Office [P]	I - CD - Conduct 90% Design Main Work Package #2 Quality Review & Submit- UR01
DS-31960	CD - LAWA/AHJ Review of 90% Design Main Work Package #2- UR01	30	10-May-25	08-Jun-25	5609 - TCD [P]	I - CD - LAWA/AHJ Review of 90% Design Main Work Package #2- UR01
Design & Precon [Const Docs] [MWP #2 - UR01] IFC Ready (100%)		8	08-Jun-25	10-Jun-25		I - CD - LAWA/AHJ Review of 90% Design Main Work Package #2- UR01
DS-31970	CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #2 Review- UR01	35	08-Jun-25	23-Jul-25	5609 - SWD SKA [H] Office [P]	I - CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #2 Review- UR01
DS-31980	CD - Perform DQC on IFC Ready Main Work Package #2- UR01	6	25-Jul-25	04-Aug-25	5609 - SWD SKA [H] Office [P]	I - CD - Perform DQC on IFC Ready Main Work Package #2- UR01
DS-31990	CD - Conduct IFC Ready Main Work Package #2 Review & Submit- UR01	6	05-Aug-25	12-Aug-25	5609 - SWD SKA [H] Office [P]	I - CD - Conduct IFC Ready Main Work Package #2 Review & Submit- UR01
DS-32000	CD - LAWA/AHJ Review of IFC Ready Main Work Package #2- UR01	30	13-Aug-25	11-Sep-25	5609 - TCD [P]	I - CD - LAWA/AHJ Review of IFC Ready Main Work Package #2- UR01
Design & Precon [Const Docs] [MWP #2 - UR01] IFC		4	12-Sep-25	10-Sep-25		I - CD - LAWA/AHJ Review of IFC Ready Main Work Package #2- UR01
DS-32040	CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #2 Review- UR01	10	12-Sep-25	25-Sep-25	5609 - SWD SKA [H] Office [P]	I - CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #2 Review- UR01
DS-32050	CD - Perform DQC on IFC Main Work Package #2- UR01	5	26-Sep-25	02-Oct-25	5609 - SWD SKA [H] Office [P]	I - CD - Perform DQC on IFC Main Work Package #2- UR01
DS-32060	CD - Conduct IFC Main Work Package #2 Review & Submit- UR01	6	03-Oct-25	10-Oct-25	5609 - SWD SKA [H] Office [P]	I - CD - Conduct IFC Main Work Package #2 Review & Submit- UR01
DS-32070	CD - LAWA/AHJ Review of IFC Main Work Package #2- UR01	30	11-Oct-25	09-Nov-25	5609 - TCD [P]	I - CD - LAWA/AHJ Review of IFC Main Work Package #2- UR01
MS-21400	CD - Issue IFC Ready Main Work Package #2- UR01	0	09-Nov-25	09-Nov-25	5609 - SWD SKA [H] Office [P]	I - CD - Issue IFC Ready Main Work Package #2- UR01
Design & Precon [P2] Const Docs [Main Work Package #3]		257	18-Nov-24	18-Mar-26		I - CD - Issue IFC Ready Main Work Package #2- UR01
Design & Precon [P2] Const Docs [MWP #3 - DU04B]		219	18-Nov-24	23-Jan-26		I - CD - Issue IFC Ready Main Work Package #2- UR01
Design & Precon [Const Docs] [MWP #3 - DU04B] 90%		8	18-Nov-24	13-Jun-25		I - CD - Issue IFC Ready Main Work Package #2- UR01
DS-32090	CD - Develop 90% Design Main Work Package #3- DU04B	39	18-Nov-24	24-Apr-25	5609 - SWD SKA [H] Office [P]	I - CD - Develop 90% Design Main Work Package #3- DU04B
DS-32110	CD - Perform Constructability Review of 90% Design Main Work Package #3- DU04B	10	18-Apr-25	01-May-25	5609 - SWD SKA [H] Office [P]	I - CD - Perform Constructability Review of 90% Design Main Work Package #3- DU04B
DS-32100	CD - Perform DQC on 90% Design Main Work Package #3- DU04B	5	25-Apr-25	01-May-25	5609 - SWD SKA [H] Office [P]	I - CD - Perform DQC on 90% Design Main Work Package #3- DU04B
DS-32120	CD - Conduct 90% Design Main Work Package #3 Quality Review & Submit- DU04B	30	02-May-25	13-Jun-25	5609 - SWD SKA [H] Office [P]	I - CD - Conduct 90% Design Main Work Package #3 Quality Review & Submit- DU04B
DS-32130	CD - LAWA/AHJ Review of 90% Design Main Work Package #3- DU04B	30	14-Jun-25	13-Jul-25	5609 - TCD [P]	I - CD - LAWA/AHJ Review of 90% Design Main Work Package #3- DU04B
Design & Precon [Const Docs] [MWP #3 - DU04B] IFC Ready (100%)		7	13-Jul-25	20-Jul-25		I - CD - LAWA/AHJ Review of 90% Design Main Work Package #3- DU04B
DS-32140	CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #3 Review- DU04B	40	14-Jul-25	16-Oct-25	5609 - SWD SKA [H] Office [P]	I - CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #3 Review- DU04B
DS-32150	CD - Perform DQC on IFC Ready Main Work Package #3- DU04B	5	17-Oct-25	13-Oct-25	5609 - SWD SKA [H] Office [P]	I - CD - Perform DQC on IFC Ready Main Work Package #3- DU04B

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Start	Finish	Calendar	
DS-32160	CD - Conduct IFC Ready Main Work Package #3 Review & Submit-DL04B	6/14-Oct-25	21-Oct-25	5609 - SWD SKA [H] Office [P]	I CD - Conduct IFC Ready Main Work Package #3 Review & Submit-DL04B
DS-32170	CD - LAWA/AHJ Review of IFC Ready Main Work Package #3- DU04B	30/22-Oct-25	20-Nov-25	5609 - TCD [P]	I CD - LAWA/AHJ Review of IFC Ready Main Work Package #3- DU04B
Design & Precon | Const Docs | MWP #3 - DU04B | IFC					I CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #3 Review-DU04B
DS-32200	CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #3 Review-DU04B	10/21-Nov-25	06-Dec-25	5609 - SWD SKA [H] Office [P]	I CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #3 Review-DU04B
DS-32210	CD - Perform DOC on IFC Main Work Package #3- DU04B	5/09-Dec-25	15-Dec-25	5609 - SWD SKA [H] Office [P]	I CD - Perform DOC on IFC Main Work Package #3- DU04B
DS-32220	CD - Conduct IFC Main Work Package #3 Review & Submit-DL04B	8/16-Dec-25	23-Dec-25	5609 - SWD SKA [H] Office [P]	I CD - Conduct IFC Main Work Package #3 Review & Submit-DL04B
DS-32230	CD - LAWA/AHJ Review of IFC Main Work Package #3- DU04B	30/24-Dec-25	22-Jan-26	5609 - TCD [P]	I CD - LAWA/AHJ Review of IFC Main Work Package #3- DU04B
MS-21410	CD - Issue IFC Main Work Package #3- DU04B	0/22-Jan-26	22-Jan-26	5609 - TCD [P]	I CD - Issue IFC Main Work Package #3- DU04B
Design & Precon | P2 | Const Docs | MWP #3 - DU05		218/18-Nov-24	22-Jan-26		I CD - Design & Precon | P2 | Const Docs | MWP #3 - DU05
Design & Precon | Const Docs | MWP #3 - DU05 | 90%					I CD - Design & Precon | Const Docs | MWP #3 - DU05 | 90%
DS-32250	CD - Develop 90% Design Main Work Package #3- DU05	51/18-Nov-24	12-May-25	5609 - SWD SKA [H] Office [P]	I CD - Develop 90% Design Main Work Package #3- DU05
DS-32270	CD - Perform Constructability Review of 90% Design Main Work Package #3- DU05	10/09-May-25	19-May-25	5609 - SWD SKA [H] Office [P]	I CD - Perform Constructability Review of 90% Design Main Work Package #3- DU05
DS-32280	CD - Perform DOC on 90% Design Main Work Package #3- DU05	5/13-May-25	19-May-25	5609 - SWD SKA [H] Office [P]	I CD - Perform DOC on 90% Design Main Work Package #3- DU05
DS-32280	CD - Conduct 90% Design Main Work Package #3 Quality Review & Submit-DU05	30/20-May-25	01-Jun-25	5609 - SWD SKA [H] Office [P]	I CD - Conduct 90% Design Main Work Package #3 Quality Review & Submit-DU05
DS-32290	CD - LAWA/AHJ Review of 90% Design Main Work Package #3- DU05	30/03-Jun-25	31-Jul-25	5609 - TCD [P]	I CD - LAWA/AHJ Review of 90% Design Main Work Package #3- DU05
Design & Precon | Const Docs | MWP #3 - DU05 | IFC Ready (100%)					I CD - Design & Precon | Const Docs | MWP #3 - DU05 | IFC Ready (100%)
DS-32300	CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #3 Review-DU05	45/01-Aug-25	08-Oct-25	5609 - SWD SKA [H] Office [P]	I CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #3 Review-DU05
DS-32310	CD - Perform DOC on IFC Ready Main Work Package #3- DU05	5/07-Oct-25	13-Oct-25	5609 - SWD SKA [H] Office [P]	I CD - Perform DOC on IFC Ready Main Work Package #3- DU05
DS-32320	CD - Conduct IFC Ready Main Work Package #3 Review & Submit-DU05	8/14-Oct-25	21-Oct-25	5609 - SWD SKA [H] Office [P]	I CD - Conduct IFC Ready Main Work Package #3 Review & Submit-DU05
DS-32330	CD - LAWA/AHJ Review of IFC Ready Main Work Package #3- DU05	30/22-Oct-25	20-Nov-25	5609 - TCD [P]	I CD - LAWA/AHJ Review of IFC Ready Main Work Package #3- DU05
Design & Precon | Const Docs | MWP #3 - DU05 | IFC					I CD - Design & Precon | Const Docs | MWP #3 - DU05 | IFC
DS-32360	CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #3 Review-DU05	10/21-Nov-25	08-Dec-25	5609 - SWD SKA [H] Office [P]	I CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #3 Review-DU05
DS-32370	CD - Perform DOC on IFC Main Work Package #3- DU05	5/09-Dec-25	15-Dec-25	5609 - SWD SKA [H] Office [P]	I CD - Perform DOC on IFC Main Work Package #3- DU05
DS-32380	CD - Conduct IFC Main Work Package #3 Review & Submit-DU05	8/16-Dec-25	23-Dec-25	5609 - SWD SKA [H] Office [P]	I CD - Conduct IFC Main Work Package #3 Review & Submit-DU05
DS-32390	CD - LAWA/AHJ Review of IFC Main Work Package #3- DU05	30/24-Dec-25	22-Jan-26	5609 - TCD [P]	I CD - LAWA/AHJ Review of IFC Main Work Package #3- DU05
MS-21420	CD - Issue IFC Main Work Package #3- DU05	0/22-Jan-26	22-Jan-26	5609 - TCD [P]	I CD - Issue IFC Main Work Package #3- DU05
Design & Precon | P2 | Const Docs | MWP #3 - PW1B		257/17-Feb-25	18-Mar-26		I CD - Design & Precon | P2 | Const Docs | MWP #3 - PW1B
Design & Precon | Const Docs | MWP #3 - PW1B					I CD - Design & Precon | Const Docs | MWP #3 - PW1B
DS-32410	CD - Develop 90% Design Main Work Package #3- PW1B	98/17-Feb-25	16-Jul-25	5609 - SWD SKA [H] Office [P]	I CD - Develop 90% Design Main Work Package #3- PW1B
DS-32430	CD - Perform Constructability Review of 90% Design Main Work Package #3- PW1B	10/14-Jul-25	25-Jul-25	5609 - SWD SKA [H] Office [P]	I CD - Perform Constructability Review of 90% Design Main Work Package #3- PW1B
DS-32420	CD - Perform DOC on 90% Design Main Work Package #3- PW1B	5/21-Jul-25	25-Jul-25	5609 - SWD SKA [H] Office [P]	I CD - Perform DOC on 90% Design Main Work Package #3- PW1B
DS-32440	CD - Conduct 90% Design Main Work Package #3 Quality Review & Submit-PW1B	30/28-Jul-25	08-Sep-25	5609 - SWD SKA [H] Office [P]	I CD - Conduct 90% Design Main Work Package #3 Quality Review & Submit-PW1B
DS-32450	CD - LAWA/AHJ Review of 90% Design Main Work Package #3- PW1B	30/09-Sep-25	06-Oct-25	5609 - TCD [P]	I CD - LAWA/AHJ Review of 90% Design Main Work Package #3- PW1B
Design & Precon | Const Docs | MWP #3 - PW1B | IFC Ready (100%)					I CD - Design & Precon | Const Docs | MWP #3 - PW1B | IFC Ready (100%)
DS-32460	CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #3 Review-PW1B	37/08-Oct-25	08-Dec-25	5609 - SWD SKA [H] Office [P]	I CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #3 Review-PW1B
DS-32470	CD - Perform DOC on IFC Ready Main Work Package #3- PW1B	5/03-Dec-25	09-Dec-25	5609 - SWD SKA [H] Office [P]	I CD - Perform DOC on IFC Ready Main Work Package #3- PW1B
DS-32480	CD - Conduct IFC Ready Main Work Package #3 Review & Submit-PW1B	8/10-Dec-25	17-Dec-25	5609 - SWD SKA [H] Office [P]	I CD - Conduct IFC Ready Main Work Package #3 Review & Submit-PW1B
DS-32490	CD - LAWA/AHJ Review of IFC Ready Main Work Package #3- PW1B	30/18-Dec-25	16-Jan-26	5609 - TCD [P]	I CD - LAWA/AHJ Review of IFC Ready Main Work Package #3- PW1B
Design & Precon | Const Docs | MWP #3 - PW1B | IFC					I CD - Design & Precon | Const Docs | MWP #3 - PW1B | IFC
DS-32520	CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #3 Review-PW1B	10/19-Jan-26	30-Jan-26	5609 - SWD SKA [H] Office [P]	I CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #3 Review-PW1B
DS-32530	CD - Perform DOC on IFC Main Work Package #3- PW1B	5/26-Feb-26	26-Feb-26	5609 - SWD SKA [H] Office [P]	I CD - Perform DOC on IFC Main Work Package #3- PW1B
DS-32540	CD - Conduct IFC Main Work Package #3 Review & Submit-PW1B	8/29-Feb-26	18-Feb-26	5609 - SWD SKA [H] Office [P]	I CD - Conduct IFC Main Work Package #3 Review & Submit-PW1B
DS-32550	CD - LAWA/AHJ Review of IFC Main Work Package #3- PW1B	30/17-Feb-26	18-Mar-26	5609 - TCD [P]	I CD - LAWA/AHJ Review of IFC Main Work Package #3- PW1B
MS-21430	CD - Issue IFC Main Work Package #3- PW1B	0/18-Mar-26	18-Mar-26	5609 - TCD [P]	I CD - Issue IFC Main Work Package #3- PW1B
Design & Precon | P2 | Const Docs | MWP #3 - PW02		219/18-Nov-24	22-Jan-26		I CD - Design & Precon | P2 | Const Docs | MWP #3 - PW02
Design & Precon | Const Docs | MWP #3 - PW02 | 90%					I CD - Design & Precon | Const Docs | MWP #3 - PW02 | 90%
DS-32570	CD - Develop 90% Design Main Work Package #3- PW02	50/18-Nov-24	22-May-25	5609 - SWD SKA [H] Office [P]	I CD - Develop 90% Design Main Work Package #3- PW02
DS-32580	CD - Perform Constructability Review of 90% Design Main Work Package #3- PW02	10/16-May-25	30-May-25	5609 - SWD SKA [H] Office [P]	I CD - Perform Constructability Review of 90% Design Main Work Package #3- PW02
DS-32580	CD - Perform DOC on 90% Design Main Work Package #3- PW02	5/23-May-25	30-May-25	5609 - SWD SKA [H] Office [P]	I CD - Perform DOC on 90% Design Main Work Package #3- PW02
DS-32600	CD - Conduct 90% Design Main Work Package #3 Quality Review & Submit-PW02	31/02-Jun-25	14-Jul-25	5609 - SWD SKA [H] Office [P]	I CD - Conduct 90% Design Main Work Package #3 Quality Review & Submit-PW02
DS-32610	CD - LAWA/AHJ Review of 90% Design Main Work Package #3- PW02	30/15-Jul-25	13-Aug-25	5609 - TCD [P]	I CD - LAWA/AHJ Review of 90% Design Main Work Package #3- PW02
Design & Precon | Const Docs | MWP #3 - PW02 | IFC Ready (100%)					I CD - Design & Precon | Const Docs | MWP #3 - PW02 | IFC Ready (100%)
DS-32620	CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #3 Review-PW02	37/14-Aug-25	08-Oct-25	5609 - SWD SKA [H] Office [P]	I CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #3 Review-PW02
DS-32630	CD - Perform DOC on IFC Ready Main Work Package #3- PW02	5/07-Oct-25	15-Oct-25	5609 - SWD SKA [H] Office [P]	I CD - Perform DOC on IFC Ready Main Work Package #3- PW02
DS-32640	CD - Conduct IFC Ready Main Work Package #3 Review & Submit-PW02	8/14-Oct-25	21-Oct-25	5609 - SWD SKA [H] Office [P]	I CD - Conduct IFC Ready Main Work Package #3 Review & Submit-PW02
DS-32650	CD - LAWA/AHJ Review of IFC Ready Main Work Package #3- PW02	30/22-Oct-25	20-Nov-25	5609 - TCD [P]	I CD - LAWA/AHJ Review of IFC Ready Main Work Package #3- PW02

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

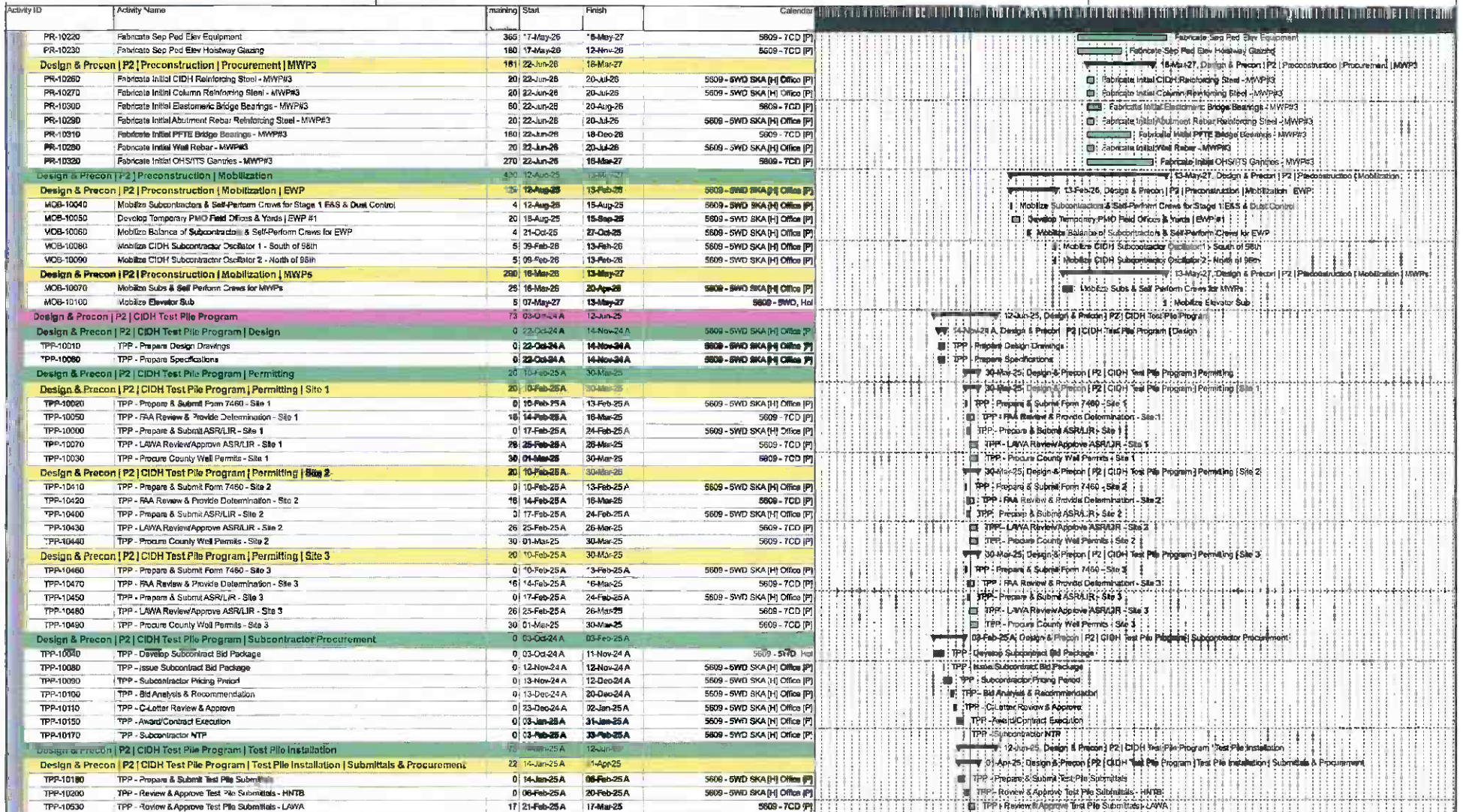


Activity ID	Activity Name	Installing	Start	Finish	Calendar
SA-10210	California Review & Approve Encroachment Permit App - SoCal Gas Main	60	08-Mar-25	08-May-26	5609 - TCD [P]
SA-10220	California Review & Approve Encroachment Permit App - SoCal Gas Main	0	08-May-25	08-May-25	5609 - TCD [P]
Design & Precon [P2] Preconstruction [Submittals]					
Design & Precon [P2] Preconstruction [Submittals] EWP #1		25	04-Jun-25	25-Jun-25	
Design & Precon [P2] Submittals [EWP] Temp Widening SB Sepulveda		4	04-Jun-25	25-Oct-25	
SUB-10130	Prepare & Submit Subcontractor Submittals [EWP #1] Temp Widening Of SB Sepulveda	20	26-Aug-25	25-Sep-25	5609 - SWD SKA [H] Office [P]
SUB-10210	Review & Approve Subcontractor Submittals [EWP #1] Temp Widening Of SB Sepulveda	30	26-Sep-25	25-Oct-25	5609 - TCD [P]
Design & Precon [P2] Submittals [EWP] Environmental Protection					
SUB-10040	Prepare & Submit Stormwater Pollution Prevention Plan [EWP #1]	30	04-Jun-25	17-Jul-25	5609 - SWD SKA [H] Office [P]
SUB-10060	Review & Approve Stormwater Pollution Prevention Plan [EWP #1]	30	17-Jul-25	15-Aug-25	5609 - TCD [P]
SUB-10070	Prepare & Submit Dust Control Plan [EWP #1]	25	17-Jul-25	20-Aug-25	5609 - SWD SKA [H] Office [P]
SUB-10080	Review & Approve Dust Control [EWP #1]	30	21-Aug-25	19-Sep-25	5609 - TCD [P]
Design & Precon [P2] Submittals [EWP] Segment A Enabling Along Century Blvd					
SUB-10140	Prepare & Submit Subcontractor Submittals [EWP #1] Segment A Enabling Along Century Blvd	20	23-Aug-25	25-Sep-25	5609 - SWD SKA [H] Office [P]
SUB-10220	Review & Approve Subcontractor Submittals [EWP #1] Segment A Enabling Along Century Blvd	30	26-Sep-25	25-Oct-25	5609 - TCD [P]
Design & Precon [P2] Submittals [EWP] Wall J-2					
SUB-10400	Prepare & Submit Wall J-2 Rebar Shop Drawings	20	23-Aug-25	25-Sep-25	5609 - SWD SKA [H] Office [P]
SUB-10420	Prepare & Submit Wall J-2 Formliner Shop Drawings	20	23-Aug-25	25-Sep-25	5609 - SWD SKA [H] Office [P]
SUB-10410	Review & Approve Wall J-2 Rebar Shop Drawings	30	26-Sep-25	25-Oct-25	5609 - TCD [P]
SUB-10430	Review & Approve Wall J-2 Formliner Shop Drawings	30	26-Sep-25	25-Oct-25	5609 - TCD [P]
Design & Precon [P2] Submittals [EWP] Contaminated/Hazardous Material Mitigation Plan					
SUB-10050	Prepare & Submit Contaminated/Hazardous Material Handling Plan [EWP #1]	20	17-Jul-25	13-Aug-25	5609 - SWD SKA [H] Office [P]
SUB-10050	Review & Approve Contaminated/Hazardous Material Handling Plan [EWP #1]	30	26-Sep-25	25-Oct-25	5609 - TCD [P]
SUB-10110	Prepare & Submit Subcontractor Submittals [EWP #1] Contaminated/Hazardous Mitigation	20	23-Aug-25	25-Sep-25	5609 - SWD SKA [H] Office [P]
SUB-10190	Review & Approve Subcontractor Submittals [EWP #1] Contaminated/Hazardous Mitigation	30	26-Sep-25	25-Oct-25	5609 - TCD [P]
Design & Precon [P2] Submittals [EWP] Advanced Utility Relocations					
SUB-10120	Prepare & Submit Subcontractor Submittals [EWP #1] Advanced Utility Relocations	20	23-Aug-25	25-Sep-25	5609 - SWD SKA [H] Office [P]
SUB-10200	Review & Approve Subcontractor Submittals [EWP #1] Advanced Utility Relocations	30	26-Sep-25	25-Oct-25	5609 - TCD [P]
Design & Precon [P2] Submittals [EWP] Building & Site Demolition					
SUB-10150	Prepare & Submit Subcontractor Submittals [EWP #1] Building & Site Demolition	20	23-Aug-25	25-Sep-25	5609 - SWD SKA [H] Office [P]
SUB-10230	Review & Approve Subcontractor Submittals [EWP #1] Building & Site Demolition	30	26-Sep-25	25-Oct-25	5609 - TCD [P]
Design & Precon [P2] Submittals [EWP] Relocate AOA Fencing					
SUB-10160	Prepare & Submit Subcontractor Submittals [EWP #1] AOA Fence Relocations	20	23-Aug-25	25-Sep-25	5609 - SWD SKA [H] Office [P]
SUB-10240	Review & Approve Subcontractor Submittals [EWP #1] AOA Fence Relocations	30	26-Sep-25	25-Oct-25	5609 - TCD [P]
Design & Precon [P2] Preconstruction [Submittals] MWP #2					
Design & Precon [P2] Preconstruction [Submittals] MWP #2 Bridges		173	25-Aug-25	16-May-26	
SUB-10440	Prepare & Submit Initial Abutment Rebar Submittals - MWP#2 cGMP1	20	26-Aug-25	25-Sep-25	5609 - SWD SKA [H] Office [P]
SUB-10450	Review & Approve Initial Abutment Rebar Submittals - MWP#2 cGMP1	30	26-Sep-25	25-Oct-25	5609 - TCD [P]
SUB-10270	Prepare & Submit Initial Large Dia CIDH Reinforcing Steel Shop Drawings - MWP#2	20	20-Nov-25	19-Dec-25	5609 - SWD SKA [H] Office [P]
SUB-10280	Prepare & Submit Initial Column Reinforcing Steel Shop Drawings - MWP#2	20	20-Nov-25	19-Dec-25	5609 - SWD SKA [H] Office [P]
SUB-10290	Prepare & Submit Initial Column & Abutment Form Shop Drawings - MWP#2	20	20-Nov-25	19-Dec-25	5609 - SWD SKA [H] Office [P]
SUB-10340	Review & Approve Initial Large Dia CIDH Reinforcing Steel Shop Drawings - MWP#2	30	20-Dec-25	18-Jan-26	5609 - TCD [P]
SUB-10350	Review & Approve Initial Column Reinforcing Steel Shop Drawings - MWP#2	30	20-Dec-25	18-Jan-26	5609 - TCD [P]
SUB-10360	Review & Approve Initial Column & Abutment Form Shop Drawings - MWP#2	30	20-Dec-25	18-Jan-26	5609 - TCD [P]
SUB-10310	Prepare & Submit Initial Bridge Bearing Shop Drawings - MWP#2	30	20-Feb-26	02-Apr-26	5609 - SWD SKA [H] Office [P]
SUB-10320	Prepare & Submit Initial Abutment Rebar Submittals - MWP#2 cGMP2	20	20-Feb-26	19-Mar-26	5609 - SWD SKA [H] Office [P]
SUB-10370	Review & Approve Initial Abutment Rebar Submittals - MWP#2 cGMP2	30	20-Mar-26	18-Apr-26	5609 - TCD [P]
SUB-10390	Review & Approve Initial Bridge Bearing Shop Drawings - MWP#2	30	03-Apr-26	02-May-26	5609 - TCD [P]
Design & Precon [P2] Preconstruction [Submittals] MWP #2 Walls					
SUB-10480	Prepare & Submit Wall Rebar Shop Drawings - MWP#2 cGMP1	20	23-Aug-25	25-Sep-25	5609 - SWD SKA [H] Office [P]
SUB-10490	Review & Approve Wall Rebar Shop Drawings - MWP#2 cGMP1	30	26-Sep-25	25-Oct-25	5609 - TCD [P]
SUB-10500	Prepare & Submit Wall Rebar Shop Drawings - MWP#2 cGMP2	20	20-Feb-26	19-Mar-26	5609 - SWD SKA [H] Office [P]
SUB-10620	Prepare & Submit Wall Formliner Shop Drawings - MWP#2	20	20-Feb-26	19-Mar-26	5609 - SWD SKA [H] Office [P]
SUB-10510	Review & Approve Wall Rebar Shop Drawings - MWP#2 cGMP2	30	20-Mar-26	18-Apr-26	5609 - TCD [P]
SUB-10530	Review & Approve Wall Formliner Shop Drawings - MWP#2	30	20-Mar-26	18-Apr-26	5609 - TCD [P]
Design & Precon [P2] Preconstruction [Submittals] MWP #2 Ped Bridges					
Design & Precon [P2] Preconstruction [Submittals] MWP #2 Ped Bridges		3	20-Mar-26	20-Apr-26	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Starting	Start	Finish	Calendar	
SUB-10460	Prepare & Submit Sep Ped Elev Tower Structural Steel Shop Dwg	20	20-Feb-26	19-Mar-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit Sep Ped Elev Tower Structural Steel Shop Dwg
SUB-10540	Prepare & Submit Sep Ped Elev Subcontractor Submittals	40	20-Feb-26	16-Apr-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit Sep Ped Elev Subcontractor Submittals
SUB-10560	Prepare & Submit Sep Ped Guardrail/Handrail Shop Dwg	20	20-Feb-26	19-Mar-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit Sep Ped Guardrail/Handrail Shop Dwg
SUB-10580	Prepare & Submit Sep Ped Elev Glazing Shop Dwg	40	20-Feb-26	16-Apr-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit Sep Ped Elev Glazing Shop Dwg
SUB-10600	Prepare & Submit 96th Ped Fencing/Handrail Shop Dwg	20	20-Feb-26	19-Mar-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit 96th Ped Fencing/Handrail Shop Dwg
SUB-10470	Review & Approve Sep Ped Elev Tower Structural Steel Shop Dwg	30	20-Mar-26	18-Apr-26	5609 - TCD [P]	Review & Approve Sep Ped Elev Tower Structural Steel Shop Dwg
SUB-10570	Review & Approve Sep Ped Guardrail/Handrail Shop Dwg	30	20-Mar-26	18-Apr-26	5609 - TCD [P]	Review & Approve Sep Ped Guardrail/Handrail Shop Dwg
SUB-10610	Review & Approve 96th Ped Fencing/Handrail Shop Dwg	30	20-Mar-26	18-Apr-26	5609 - TCD [P]	Review & Approve 96th Ped Fencing/Handrail Shop Dwg
SUB-10550	Review & Approve Sep Ped Elev Subcontractor Submittals	30	17-Apr-26	16-May-26	5609 - TCD [P]	Review & Approve Sep Ped Elev Subcontractor Submittals
SUB-10590	Review & Approve Sep Ped Elev Glazing Shop Dwg	30	17-Apr-26	16-May-26	5609 - TCD [P]	Review & Approve Sep Ped Elev Glazing Shop Dwg
Design & Precon | P2 | Preconstruction | Submittals | MWP#2 | Misc						
SUB-10260	Prepare & Submit Initial Subcontractor Submittals - MWP#2	20	20-Feb-26	19-Mar-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit Initial Subcontractor Submittals - MWP#2
SUB-10170	Prepare & Submit Initial Final Workplans - MWP#2	20	20-Feb-26	19-Mar-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit Initial Final Workplans - MWP#2
SUB-10620	Prepare & Submit CHS/ITS Gantry Structure Shop Dwg - MWP#2	40	20-Feb-26	16-Apr-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit CHS/ITS Gantry Structure Shop Dwg - MWP#2
SUB-10130	Review & Approve Initial Subcontractor Submittals - MWP#2	30	20-Mar-26	18-Apr-26	5609 - TCD [P]	Review & Approve Initial Subcontractor Submittals - MWP#2
SUB-10250	Review & Approve Initial Final Workplans - MWP#2	30	20-Mar-26	18-Apr-26	5609 - TCD [P]	Review & Approve Initial Final Workplans - MWP#2
SUB-10630	Review & Approve CHS/ITS Gantry Structure Shop Dwg - MWP#2	30	17-Apr-26	16-May-26	5609 - TCD [P]	Review & Approve CHS/ITS Gantry Structure Shop Dwg - MWP#2
Design & Precon | P2 | Preconstruction | Submittals | MWP#3						
Design & Precon | P2 | Preconstruction | Submittals | MWP#3 | Bridges						
SUB-10680	Prepare & Submit Initial CIDH Reinforcing Steel Shop Drawings - MWP#3	20	27-Apr-26	22-May-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit Initial CIDH Reinforcing Steel Shop Drawings - MWP#3
SUB-10690	Prepare & Submit Initial Column Reinforcing Steel Shop Drawings - MWP#3	20	27-Apr-26	22-May-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit Initial Column Reinforcing Steel Shop Drawings - MWP#3
SUB-10720	Prepare & Submit Initial Bridge Bearing Shop Drawings - MWP#3	20	27-Apr-26	22-May-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit Initial Bridge Bearing Shop Drawings - MWP#3
SUB-10740	Prepare & Submit Initial Abutment Rebar Submittals - MWP#3	20	27-Apr-26	22-May-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit Initial Abutment Rebar Submittals - MWP#3
SUB-10670	Review & Approve Initial CIDH Reinforcing Steel Shop Drawings - MWP#3	30	23-May-26	21-Jun-26	5609 - TCD [P]	Review & Approve Initial CIDH Reinforcing Steel Shop Drawings - MWP#3
SUB-10700	Review & Approve Initial Column Reinforcing Steel Shop Drawings - MWP#3	30	23-May-26	21-Jun-26	5609 - TCD [P]	Review & Approve Initial Column Reinforcing Steel Shop Drawings - MWP#3
SUB-10730	Review & Approve Initial Bridge Bearing Shop Drawings - MWP#3	30	23-May-26	21-Jun-26	5609 - TCD [P]	Review & Approve Initial Bridge Bearing Shop Drawings - MWP#3
SUB-10750	Review & Approve Initial Abutment Rebar Submittals - MWP#3	30	23-May-26	21-Jun-26	5609 - TCD [P]	Review & Approve Initial Abutment Rebar Submittals - MWP#3
Design & Precon | P2 | Preconstruction | Submittals | MWP#3 | Walls						
SUB-10620	Prepare & Submit Wall Rebar Shop Dwg - MWP#3	20	27-Apr-26	22-May-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit Wall Rebar Shop Dwg - MWP#3
SUB-10640	Prepare & Submit Wall Formliner Shop Dwg - MWP#3	20	27-Apr-26	22-May-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit Wall Formliner Shop Dwg - MWP#3
SUB-10630	Review & Approve Wall Rebar Shop Dwg - MWP#3	30	23-May-26	21-Jun-26	5609 - TCD [P]	Review & Approve Wall Rebar Shop Dwg - MWP#3
SUB-10650	Review & Approve Wall Formliner Shop Dwg - MWP#3	30	23-May-26	21-Jun-26	5609 - TCD [P]	Review & Approve Wall Formliner Shop Dwg - MWP#3
Design & Precon | P2 | Preconstruction | Submittals | MWP#3 | Misc						
SUB-10760	Prepare & Submit Initial Final Workplans - MWP#3	20	27-Apr-26	22-May-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit Initial Final Workplans - MWP#3
SUB-10660	Prepare & Submit CHS/ITS Gantry Structure Shop Dwg - MWP#3	20	27-Apr-26	22-May-26	5609 - SWD SKA [H] Office [P]	Prepare & Submit CHS/ITS Gantry Structure Shop Dwg - MWP#3
SUB-10770	Review & Approve Initial Final Workplans - MWP#3	30	23-May-26	21-Jun-26	5609 - TCD [P]	Review & Approve Initial Final Workplans - MWP#3
SUB-10870	Review & Approve CHS/ITS Gantry Structure Shop Dwg - MWP#3	30	23-May-26	21-Jun-26	5609 - TCD [P]	Review & Approve CHS/ITS Gantry Structure Shop Dwg - MWP#3
Design & Precon | P2 | Preconstruction | Procurement						
Design & Precon | P2 | Preconstruction | Procurement | EWP#1						
PR-10130	Fabricate & Deliver Wall J2 Form Liner	60	26-Oct-25	24-Dec-25	5609 - TCD [P]	Fabricate & Deliver Wall J2 Form Liner
PR-10110	Fabricate & Deliver Wall J2 Rebar	20	27-Oct-25	21-Nov-25	5609 - SWD SKA [H] Office [P]	Fabricate & Deliver Wall J2 Rebar
Design & Precon | P2 | Preconstruction | Procurement | MWP#2						
PR-10080	Fabricate Initial Abutment Rebar Reinforcing Steel - MWP#2 - cGMP1	20	27-Oct-25	21-Nov-25	5609 - SWD SKA [H] Office [P]	Fabricate Initial Abutment Rebar Reinforcing Steel - MWP#2 - cGMP1
PR-10160	Fabricate Initial Wall Rebar - MWP#2 cGMP1	20	27-Oct-25	21-Nov-25	5609 - SWD SKA [H] Office [P]	Fabricate Initial Wall Rebar - MWP#2 cGMP1
PR-10040	Fabricate Initial CIDH Reinforcing Steel - MWP#2	20	19-Jan-26	13-Feb-26	5609 - SWD SKA [H] Office [P]	Fabricate Initial CIDH Reinforcing Steel - MWP#2
PR-10050	Fabricate Initial Column Reinforcing Steel - MWP#2	20	19-Jan-26	13-Feb-26	5609 - SWD SKA [H] Office [P]	Fabricate Initial Column Reinforcing Steel - MWP#2
PR-10060	Fabricate Initial Column Forms - MWP#2	20	19-Jan-26	13-Feb-26	5609 - SWD SKA [H] Office [P]	Fabricate Initial Column Forms - MWP#2
PR-10070	Fabricate Initial Abutment Forms - MWP#2	20	19-Jan-26	13-Feb-26	5609 - SWD SKA [H] Office [P]	Fabricate Initial Abutment Forms - MWP#2
PR-10190	Fabricate Initial Wall Formliner - MWP#2	60	19-Apr-26	17-Jun-26	5609 - TCD [P]	Fabricate Initial Wall Formliner - MWP#2
PR-10210	Fabricate Sep Ped Elev Tower Structural Steel	120	19-Apr-26	18-Aug-26	5609 - TCD [P]	Fabricate Sep Ped Elev Tower Structural Steel
PR-10240	Fabricate Sep Ped Bridge Guardrail/Handrail	120	19-Apr-26	18-Aug-26	5609 - TCD [P]	Fabricate Sep Ped Bridge Guardrail/Handrail
PR-10230	Fabricate 96th Ped Bridge Fencing/Handrail	60	19-Apr-26	17-Jun-26	5609 - TCD [P]	Fabricate 96th Ped Bridge Fencing/Handrail
PR-10140	Fabricate Initial Abutment Rebar Reinforcing Steel - MWP#2 - cGMP2	20	20-Apr-26	15-May-26	5609 - SWD SKA [H] Office [P]	Fabricate Initial Abutment Rebar Reinforcing Steel - MWP#2 - cGMP2
PR-10170	Fabricate Initial Wall Rebar - MWP#2 cGMP2	20	20-Apr-26	15-May-26	5609 - SWD SKA [H] Office [P]	Fabricate Initial Wall Rebar - MWP#2 cGMP2
PR-10100	Fabricate Initial Elastomeric Bridge Bearings - MWP#2	60	03-May-26	01-Jul-26	5609 - TCD [P]	Fabricate Initial Elastomeric Bridge Bearings - MWP#2
PR-10150	Fabricate Initial PTFE Bridge Bearings - MWP#2	180	03-May-26	29-Oct-26	5609 - TCD [P]	Fabricate Initial PTFE Bridge Bearings - MWP#2
PR-10200	Fabricate Initial CHS/ITS Gantry - MWP#2	270	17-May-26	10-Feb-27	5609 - TCD [P]	Fabricate Initial CHS/ITS Gantry - MWP#2

■ Actual Work
 ■ Critical Remaining Work
 ■ Summary
 ◆ Remaining Work
 ◆ Milestone



Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
TPP-10190	TPP - Procure Reinforcing Steel/Concrete Materials	25	01-Mar-25	25-Mar-25	5609 - TCD [P]	TPP - Procure Reinforcing Steel/Concrete Materials
TPP-10210	TPP - Mobilize CIDH Subcontractor	5	26-Mar-25	01-Apr-25	5609 - SWD, Hol	TPP - Mobilize CIDH Subcontractor
Design & Precon | P2 | CIDH Test Pile Program | Test Pile Installation | Site Preparation						
TPP-10120	TPP - Establish Fencing/SWPPP - Site 1	2	24-Mar-25	01-Apr-25	5609 - SWD, Hol	TPP - Establish Fencing/SWPPP - Site 1
TPP-10130	TPP - Perform Site Investigations - Site 1	4	02-Apr-25	07-Apr-25	5609 - SWD, Hol	TPP - Perform Site Investigations - Site 1
TPP-10140	TPP - Establish Fencing/SWPPP - Site 2	2	02-Apr-25	03-Apr-25	5609 - SWD, Hol	TPP - Establish Fencing/SWPPP - Site 2
TPP-10160	TPP - Establish Fencing/SWPPP - Site 3	2	04-Apr-25	07-Apr-25	5609 - SWD, Hol	TPP - Establish Fencing/SWPPP - Site 3
TPP-10500	TPP - Perform Site Investigations - Site 2	4	04-Apr-25	08-Apr-25	5609 - SWD Sika [H] Office [P]	TPP - Perform Site Investigations - Site 2
TPP-10510	TPP - Perform Site Investigations - Site 3	4	05-Apr-25	11-Apr-25	5609 - SWD Sika [H] Office [P]	TPP - Perform Site Investigations - Site 3
Design & Precon | P2 | CIDH Test Pile Program | Test Pile Installation | Site 1						
TPP-10220	TPP - Assemble Cage/O-Cells - Site 1	3	02-Apr-25	04-Apr-25	5609 - SWD, Hol	TPP - Assemble Cage/O-Cells - Site 1
TPP-10230	TPP - Install CIDH Test Piles (2 EA) - Site 1	6	08-Apr-25	15-Apr-25	5609 - SWD, Hol	TPP - Install CIDH Test Piles (2 EA) - Site 1
TPP-10250	TPP - Cure CIDH - Site 1	10	15-Apr-25	25-Apr-25	5609 - TCD [P]	TPP - Cure CIDH - Site 1
TPP-10310	TPP - Perform Pile Testing - Site 1	2	28-Apr-25	29-Apr-25	5609 - SWD, Hol	TPP - Perform Pile Testing - Site 1
TPP-10320	TPP - Purg/Graut Hydraulic Lines - Site 1	2	30-Apr-25	01-May-25	5609 - SWD, Hol	TPP - Purg/Graut Hydraulic Lines - Site 1
Design & Precon | P2 | CIDH Test Pile Program | Test Pile Installation | Site 2						
TPP-10240	TPP - Assemble Cage/O-Cells - Site 2	3	27-Apr-25	29-Apr-25	5609 - SWD, Hol	TPP - Assemble Cage/O-Cells - Site 2
TPP-10270	TPP - On-Site Mobilization CIDH Subcontractor Site 1 to Site 2	3	15-Apr-25	18-Apr-25	5609 - SWD, Hol	TPP - On-Site Mobilization CIDH Subcontractor Site 1 to Site 2
TPP-10280	TPP - Install CIDH Test Piles (2 EA) - Site 2	6	21-Apr-25	28-Apr-25	5609 - SWD, Hol	TPP - Install CIDH Test Piles (2 EA) - Site 2
TPP-10290	TPP - Cure CIDH - Site 2	10	29-Apr-25	08-May-25	5609 - TCD [P]	TPP - Cure CIDH - Site 2
TPP-10350	TPP - Perform Pile Testing - Site 2	2	09-May-25	12-May-25	5609 - SWD, Hol	TPP - Perform Pile Testing - Site 2
TPP-10360	TPP - Purg/Graut Hydraulic Lines - Site 2	2	13-May-25	14-May-25	5609 - SWD, Hol	TPP - Purg/Graut Hydraulic Lines - Site 2
Design & Precon | P2 | CIDH Test Pile Program | Test Pile Installation | Site 3						
TPP-10520	TPP - Provide Notice of Excavation to Homeowner Suites	30	18-Mar-25	18-Apr-25	5609 - TCD [P]	TPP - Provide Notice of Excavation to Homeowner Suites
TPP-10250	TPP - Assemble Cage/O-Cells - Site 3	3	10-Apr-25	14-Apr-25	5609 - SWD, Hol	TPP - Assemble Cage/O-Cells - Site 3
TPP-10300	TPP - On-Site Mobilization CIDH Subcontractor Site 2 to Site 3	3	29-Apr-25	01-May-25	5609 - SWD, Hol	TPP - On-Site Mobilization CIDH Subcontractor Site 2 to Site 3
TPP-10330	TPP - Install CIDH Test Piles (2 EA) - Site 3	6	02-May-25	08-May-25	5609 - SWD, Hol	TPP - Install CIDH Test Piles (2 EA) - Site 3
TPP-10340	TPP - Cure CIDH - Site 3	10	04-May-25	14-May-25	5609 - TCD [P]	TPP - Cure CIDH - Site 3
TPP-10370	TPP - Perform Pile Testing - Site 3	2	20-May-25	21-May-25	5609 - SWD, Hol	TPP - Perform Pile Testing - Site 3
TPP-10380	TPP - Purg/Graut Hydraulic Lines - Site 3	2	22-May-25	23-May-25	5609 - SWD, Hol	TPP - Purg/Graut Hydraulic Lines - Site 3
Design & Precon | P2 | CIDH Test Pile Program | Test Pile Installation | Final Reporting						
TPP-10390	TPP - Prepare Final Reports & Submit	15	22-May-25	12-Jun-25	5609 - SWD Sika [H] Office [P]	TPP - Prepare Final Reports & Submit
Utility Relocations						
UTIL-10690	UTIL Reloc - Comms - AT&T Along SB Sepulveda - Ductbank 1	1008	03-Aug-24 A	05-Aug-25	5609 - SWD Sika [H] Office [P]	UTIL Reloc - Comms - AT&T Along SB Sepulveda - Ductbank 1
Utility Relocations - Comms						
UTIL-10700	UTIL Reloc - Comms - AT&T Along SB Sepulveda - Ductbank 1	308	27-Oct-25	06-Aug-29		UTIL Reloc - Comms - AT&T Along SB Sepulveda - Ductbank 1
Utility Relocations - Comms - AT&T						
UTIL-10691	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 1 - Excavate, Shore & Place Tie-In Pits	10	27-Oct-25	04-Feb-27		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 1 - Excavate, Shore & Place Tie-In Pits
UTIL-10711	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 1 - AT&T Expose Conduit for Tie-Ins	10	10-Nov-25	02-Dec-25		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 1 - AT&T Expose Conduit for Tie-Ins
UTIL-10731	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 1 - Install Ductbank Sta 0+00 to Sta 1+82	8	10-Nov-25	20-Nov-25		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 1 - Install Ductbank Sta 0+00 to Sta 1+82
UTIL-10751	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 1 - Install Manhole @ Sta 1+82	5	01-Dec-25	08-Dec-25		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 1 - Install Manhole @ Sta 1+82
UTIL-10761	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 1 - Install Ductbank Sta 1+82 to Sta 2+95	6	09-Dec-25	17-Dec-25		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 1 - Install Ductbank Sta 1+82 to Sta 2+95
Utility Relocations - Comms - AT&T Along SB Sepulveda - Ductbank 2						
UTIL-11091	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Excavate, Shore & Place Tie-In Pits	10	10-Nov-25	02-Dec-25		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Excavate, Shore & Place Tie-In Pits
UTIL-11121	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - AT&T Expose Conduit for Tie-Ins	10	03-Dec-25	18-Dec-25		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - AT&T Expose Conduit for Tie-Ins
UTIL-11111	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 0+00 to Sta 3+57A	12	02-Jan-26	19-Jan-26		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 0+00 to Sta 3+57A
UTIL-11101	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 3+57A to Sta 4+52A	9	08-Jan-26	20-Jan-26		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 3+57A to Sta 4+52A
UTIL-10901	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 4+52A to Sta 1+25A	7	20-Jan-26	28-Jan-26		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 4+52A to Sta 1+25A
UTIL-11091	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 4+52A to Sta 5+33A	5	21-Jan-26	27-Jan-26		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 4+52A to Sta 5+33A
UTIL-11081	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 5+33A to Sta 4+50A	8	28-Jan-26	06-Feb-26		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 5+33A to Sta 4+50A
UTIL-10891	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 1+25A to Sta 2+10A	5	29-Jan-26	04-Feb-26		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 1+25A to Sta 2+10A
UTIL-10881	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Manhole Sta 2+10A	8	05-Feb-26	11-Feb-26		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Manhole Sta 2+10A
UTIL-10911	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 2+10A to Sta 3+00A	5	09-Feb-26	13-Feb-26		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2 - Install Ductbank Sta 2+10A to Sta 3+00A
Utility Relocations - Comms - AT&T Along SB Sepulveda - Ductbank 2 - Branch B						
UTIL-10341	UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2B - Install Ductbank Sta 0+90B to Sta 2+05B/0+96A	6	12-Feb-26	20-Feb-26		UTIL Reloc - Comms - AT&T SB Sep - Ductbank 2B - Install Ductbank Sta 0+90B to Sta 2+05B/0+96A

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
UTIL-11821	Util Reloc - Comms - AT&T SB Sep - Ductbank 2R - Install Ductbank Sta 0+00B to Sta 0+90B	8	23-Feb-26	04-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Ductbank 2R - Install Ductbank Sta 0+00B to Sta 0+90B
Utility Relocates - Comms - AT&T Along SB Sep Sepulveda - Ductbank 2 - Branch C	8	23-Feb-26	04-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Utility Relocates - Comms - AT&T Along SB Sep Sepulveda - Ductbank 2 - Branch C	
UTIL-10861	Util Reloc - Comms - AT&T SB Sep - Ductbank 2C - Install Ductbank Sta 0+00C2+00A to Sta 0+12C	8	21-Jan-26	30-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Ductbank 2C - Install Ductbank Sta 0+00C2+00A to Sta 0+12C
Utility Relocates - Comms - AT&T Along SB Sep Sepulveda - Ductbank 3	34	27-Oct-25	07-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Utility Relocates - Comms - AT&T Along SB Sep Sepulveda - Ductbank 3	
UTIL-10851	Util Reloc - Comms - AT&T SB Sep - Ductbank 3 - Excavate, Shore & Plate Tie-In Pits	10	27-Oct-25	07-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Ductbank 3 - Excavate, Shore & Plate Tie-In Pits
UTIL-10841	Util Reloc - Comms - AT&T SB Sep - Ductbank 3 - AT&T Expose Conduits for Tie-In	10	10-Nov-25	02-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Ductbank 3 - AT&T Expose Conduits for Tie-In
UTIL-10831	Util Reloc - Comms - AT&T SB Sep - Ductbank 3 - Install Ductbank Sta 3+00 to Sta 1+66	10	03-Dec-25	18-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Ductbank 3 - Install Ductbank Sta 3+00 to Sta 1+66
UTIL-10811	Util Reloc - Comms - AT&T SB Sep - Ductbank 3 - Install Conduit Branch Out @ Sta 0+79	4	02-Jan-26	07-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Ductbank 3 - Install Conduit Branch Out @ Sta 0+79
Utility Relocates - Comms - AT&T Along SB Sep Sepulveda - Mandrel	18	17-Feb-26	06-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Utility Relocates - Comms - AT&T Along SB Sep Sepulveda - Mandrel	
UTIL-12301	Util Reloc - Comms - AT&T SB Sep - Mandrel - Main Ductbanks	5	17-Feb-26	23-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Mandrel - Main Ductbanks
UTIL-12311	Util Reloc - Comms - AT&T SB Sep - Mandrel - Ductbank 2 Branch B	3	05-Mar-26	09-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Mandrel - Ductbank 2 Branch B
Utility Relocates - Comms - AT&T Along SB Sep Sepulveda - Pull & Splice Fiber	240	24-Feb-26	21-Oct-26	5609 - 7CD [P]	Utility Relocates - Comms - AT&T Along SB Sep Sepulveda - Pull & Splice Fiber	
UTIL-12341	Util Reloc - Comms - AT&T SB Sep - Pull & Splice Fiber - Main Ductbank	240	24-Feb-26	21-Oct-26	5609 - 7CD [P]	Util Reloc - Comms - AT&T SB Sep - Pull & Splice Fiber - Main Ductbank
UTIL-10391	Util Reloc - Comms - AT&T SB Sep - Pull & Splice Fiber - Little Century	90	10-Mar-26	07-Jun-26	5609 - 7CD [P]	Util Reloc - Comms - AT&T SB Sep - Pull & Splice Fiber - Little Century
Utility Relocates - Comms - AT&T Along SB Sep Sepulveda - Ductbank Tie-In Completion	15	22-Oct-25	13-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Utility Relocates - Comms - AT&T Along SB Sep Sepulveda - Ductbank Tie-In Completion	
UTIL-20010	Util Reloc - Comms - AT&T SB Sep - Tie-In Comp - Complete Conduit Tie-In & Backfill Ductbank 2	8	22-Oct-25	02-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Tie-In Comp - Complete Conduit Tie-In & Backfill Ductbank 2
UTIL-20000	Util Reloc - Comms - AT&T SB Sep - Tie-In Comp - Complete Conduit Tie-In & Backfill Ductbank 3	8	22-Oct-25	02-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Tie-In Comp - Complete Conduit Tie-In & Backfill Ductbank 3
UTIL-20020	Util Reloc - Comms - AT&T SB Sep - Tie-In Comp - Complete Conduit Tie-In & Backfill Ductbank 1	8	03-Nov-25	13-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Tie-In Comp - Complete Conduit Tie-In & Backfill Ductbank 1
Utility Relocates - Comms - AT&T Along SB Sep Sepulveda - Removals & Restoration	49	03-Nov-25	04-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Utility Relocates - Comms - AT&T Along SB Sep Sepulveda - Removals & Restoration	
UTIL-20030	Util Reloc - Comms - AT&T SB Sep - Remove Ductbank In Conflict with Seg A	4	03-Nov-25	06-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Remove Ductbank In Conflict with Seg A
UTIL-10380	Util Reloc - Comms - AT&T SB Sep - Restore Trench Pavement SB Sep No of Century	5	09-Nov-25	18-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Restore Trench Pavement SB Sep No of Century
UTIL-20040	Util Reloc - Comms - AT&T SB Sep - Remove Ductbank & Vault So of Sep	8	16-Nov-25	03-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Remove Ductbank & Vault So of Sep
UTIL-12370	Util Reloc - Comms - AT&T SB Sep - Restore Trench Pavement SB Sep So of Century	5	07-Dec-25	14-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Restore Trench Pavement SB Sep So of Century
UTIL-20050	Util Reloc - Comms - AT&T SB Sep - Remove Ductbank In Conflict with Seg D	8	26-Jan-26	04-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - Comms - AT&T SB Sep - Remove Ductbank In Conflict with Seg D
Utility Relocates - Comms - AT&T Ductbank Relocation at Sep/Sag A Ramp	36	16-Dec-25	24-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Utility Relocates - Comms - AT&T Ductbank Relocation at Sep/Sag A Ramp	
UTIL-10540	Util Reloc - AT&T @ Sep/Sag A Ramp - Sawcut Pavement	2	16-Dec-25	02-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Sep/Sag A Ramp - Sawcut Pavement
UTIL-12640	Util Reloc - AT&T @ Sep/Sag A Ramp - Install Ductbank East of Sep	2	05-Jan-26	06-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Sep/Sag A Ramp - Install Ductbank East of Sep
UTIL-12650	Util Reloc - AT&T @ Sep/Sag A Ramp - Install Ductbank Across NB Sep	4	07-Jan-26	12-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Sep/Sag A Ramp - Install Ductbank Across NB Sep
UTIL-12660	Util Reloc - AT&T @ Sep/Sag A Ramp - Install Ductbank Across SB Sep	4	13-Jan-26	18-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Sep/Sag A Ramp - Install Ductbank Across SB Sep
UTIL-12670	Util Reloc - AT&T @ Sep/Sag A Ramp - Install Ductbank West of Sep	2	19-Jan-26	20-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Sep/Sag A Ramp - Install Ductbank West of Sep
UTIL-12680	Util Reloc - AT&T @ Sep/Sag A Ramp - Mandrel Conduit	1	21-Jan-26	21-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Sep/Sag A Ramp - Mandrel Conduit
UTIL-12690	Util Reloc - AT&T @ Sep/Sag A Ramp - AT&T Pull & Splice Fiber	20	22-Jan-26	19-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Sep/Sag A Ramp - AT&T Pull & Splice Fiber
UTIL-12700	Util Reloc - AT&T @ Sep/Sag A Ramp - Remove Conduit In Conflict	1	20-Feb-26	20-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Sep/Sag A Ramp - Remove Conduit In Conflict
UTIL-12710	Util Reloc - AT&T @ Sep/Sag A Ramp - Restore Pavement	2	23-Feb-26	24-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Sep/Sag A Ramp - Restore Pavement
Utility Relocates - Comms - AT&T Ductbank Relocation on 96th St	32	16-Dec-25	15-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Utility Relocates - Comms - AT&T Ductbank Relocation on 96th St	
UTIL-10920	Util Reloc - AT&T on 96th - Sawcut Pavement	1	28-Jul-26	29-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T on 96th - Sawcut Pavement
UTIL-12720	Util Reloc - AT&T on 96th - Install Ductbank	5	30-Jul-26	05-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T on 96th - Install Ductbank
UTIL-12730	Util Reloc - AT&T on 96th - Mandrel Conduit	2	06-Aug-26	07-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T on 96th - Mandrel Conduit
UTIL-12740	Util Reloc - AT&T on 96th - AT&T Pull & Splice Fiber	20	10-Aug-26	04-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T on 96th - AT&T Pull & Splice Fiber
UTIL-12750	Util Reloc - AT&T on 96th - Remove Conduit in Conflict	2	08-Sep-26	09-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T on 96th - Remove Conduit in Conflict
UTIL-12760	Util Reloc - AT&T on 96th - Restore Pavement	2	10-Sep-26	11-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T on 96th - Restore Pavement
Utility Relocates - Comms - AT&T Ductbank Relocation at Seg P	37	16-Dec-25	03-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Utility Relocates - Comms - AT&T Ductbank Relocation at Seg P	
UTIL-11020	Util Reloc - AT&T @ Seg P - Sawcut Pavement	1	14-Sep-26	14-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Seg P - Sawcut Pavement
UTIL-12770	Util Reloc - AT&T @ Seg P - Install Ductbank	10	15-Sep-26	26-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Seg P - Install Ductbank
UTIL-12780	Util Reloc - AT&T @ Seg P - Mandrel Conduit	2	29-Sep-26	30-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Seg P - Mandrel Conduit
UTIL-12790	Util Reloc - AT&T @ Seg P - AT&T Pull & Splice Fiber	20	01-Oct-26	28-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Seg P - AT&T Pull & Splice Fiber
UTIL-12800	Util Reloc - AT&T @ Seg P - Remove Conduit In Conflict	2	29-Oct-26	30-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Seg P - Remove Conduit In Conflict
UTIL-12810	Util Reloc - AT&T @ Seg P - Restore Pavement	2	03-Nov-26	03-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T @ Seg P - Restore Pavement
Utility Relocates - Comms - AT&T LACC Service Relocation	2	01-Nov-26	02-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Utility Relocates - Comms - AT&T LACC Service Relocation	
UTIL-11040	Util Reloc - AT&T LACC Service - Sawcut Pavement	1	09-Dec-25	09-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T LACC Service - Sawcut Pavement
UTIL-12820	Util Reloc - AT&T LACC Service - Install Conduit	8	10-Dec-25	17-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T LACC Service - Install Conduit
UTIL-12830	Util Reloc - AT&T LACC Service - Mandrel Conduit	1	18-Dec-25	18-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T LACC Service - Mandrel Conduit
UTIL-12840	Util Reloc - AT&T LACC Service - AT&T Pull & Splice Fiber	20	02-Jan-26	29-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T LACC Service - AT&T Pull & Splice Fiber
UTIL-12850	Util Reloc - AT&T LACC Service - Restore Pavement	1	08-Jan-26	08-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T LACC Service - Restore Pavement
Utility Relocates - Comms - AT&T Sunrise Service Relocation	38	05-Jan-26	26-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Utility Relocates - Comms - AT&T Sunrise Service Relocation	
UTIL-13500	Util Reloc - AT&T Sunrise Service - Install Conduit & Mandrel	10	05-Jan-26	15-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Util Reloc - AT&T Sunrise Service - Install Conduit & Mandrel

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
UTIL-13830	Util Relo - AT&T Sunrise Service - AT&T Pull & Splice Fiber	20	19-Jan-26	13-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - AT&T Sunrise Service - AT&T Pull & Splice Fiber
UTIL-13840	Util Relo - AT&T Sunrise Service - Restore Sidewalk & Pymtl	8	17-Feb-26	26-Feb-26	5609 - SWD, -fol, TDay, Xmas, WC, Cy	Util Relo - AT&T Sunrise Service - Restore Sidewalk & Pymtl
Utility Relocations - Comms - AT&T OH to UG @ Abut A-A1						
UTIL-10420	Util Relo - Comms SB Sep - AT&T OH to UG @ Abut A-A1 - Install Conduit & Pull Boxes	9	10-Nov-25	21-Nov-25	5609 - SWD, Hol	Util Relo - Comms SB Sep - AT&T OH to UG @ Abut A-A1 - Install Conduit & Pull Boxes
UTIL-10440	Util Relo - Comms SB Sep - AT&T OH to UG @ Abut A-A1 - Mandrel Ductbank(s)	1	10-Mar-26	10-Mar-26	5609 - SWD, Hol	Util Relo - Comms SB Sep - AT&T OH to UG @ Abut A-A1 - Mandrel Ductbank(s)
UTIL-10450	Util Relo - Comms SB Sep - AT&T OH to UG @ Abut A-A1 - Pull & Splice Fiber (By Others)	20	11-Mar-26	31-Apr-26	5609 - SWD, Hol	Util Relo - Comms SB Sep - AT&T OH to UG @ Abut A-A1 - Pull & Splice Fiber (By Others)
Utility Relocations - Comms - Vicksburg Interface with A & D						
Utility Relocations - Comms at Vicksburg Interface with A & D - AT&T OH to UG						
UTIL-10930	Util Relo - Vicksburg Comms AT&T OH to UG - Install Conduit & Pull Boxes	4	11-Dec-25	04-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - Vicksburg Comms AT&T OH to UG - Install Conduit & Pull Boxes
UTIL-10950	Util Relo - Vicksburg Comms AT&T OH to UG - Mandrel Ductbank(s)	1	30-Dec-25	30-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - Vicksburg Comms AT&T OH to UG - Mandrel Ductbank(s)
UTIL-10960	Util Relo - Vicksburg Comms AT&T OH to UG - Pull & Splice Fiber (By Others)	20	09-Dec-25	20-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - Vicksburg Comms AT&T OH to UG - Pull & Splice Fiber (By Others)
Utility Relocations - Comms at Vicksburg Interface with A & D - Spectrum OH to UG						
UTIL-10970	Util Relo - Vicksburg Comms Spectrum OH to UG - Install Ductbank - VB Pole to Sta 3+78	7	09-Dec-25	18-Dec-25	5609 - SWD, Hol	Util Relo - Vicksburg Comms Spectrum OH to UG - Install Ductbank - VB Pole to Sta 3+78
UTIL-10980	Util Relo - Vicksburg Comms Spectrum OH to UG - Install Ductbank - Across Vicksburg	2	22-Dec-25	23-Dec-25	5609 - SWD, Hol	Util Relo - Vicksburg Comms Spectrum OH to UG - Install Ductbank - Across Vicksburg
UTIL-10990	Util Relo - Vicksburg Comms Spectrum OH to UG - Install Ductbank - Sta 4+50 to Pole @ Sta 9+80	10	29-Dec-25	14-Jan-26	5609 - SWD, Hol	Util Relo - Vicksburg Comms Spectrum OH to UG - Install Ductbank - Sta 4+50 to Pole @ Sta 9+80
UTIL-11000	Util Relo - Vicksburg Comms Spectrum OH to UG - Mandrel Ductbank(s)	1	15-Jan-26	15-Jan-26	5609 - SWD, Hol	Util Relo - Vicksburg Comms Spectrum OH to UG - Mandrel Ductbank(s)
UTIL-11010	Util Relo - Vicksburg Comms Spectrum OH to UG - Pull & Splice Fiber (By Others)	20	16-Jan-26	12-Feb-26	5609 - SWD, Hol	Util Relo - Vicksburg Comms Spectrum OH to UG - Pull & Splice Fiber (By Others)
Utility Relocations - Comms at Vicksburg Interface with A & D - Crown Castle OH to UG						
UTIL-11030	Util Relo - Vicksburg Comms Crown Castle OH to UG - Install Conduit & Pull Boxes	5	16-Jan-26	23-Jan-26	5609 - SWD, Hol	Util Relo - Vicksburg Comms Crown Castle OH to UG - Install Conduit & Pull Boxes
UTIL-11050	Util Relo - Vicksburg Comms Crown Castle OH to UG - Mandrel Ductbank(s)	1	23-Jan-26	23-Jan-26	5609 - SWD, Hol	Util Relo - Vicksburg Comms Crown Castle OH to UG - Mandrel Ductbank(s)
UTIL-11060	Util Relo - Vicksburg Comms Crown Castle OH to UG - Pull & Splice Fiber (By Others)	20	26-Jan-26	23-Feb-26	5609 - SWD, Hol	Util Relo - Vicksburg Comms Crown Castle OH to UG - Pull & Splice Fiber (By Others)
Utility Relocations - Comms - AT&T						
Utility Relocations - Comms - LADOT AT&T						
UTIL-13860	Util Relo - Install Temp OH AT&T Poles for Wall J-2	5	27-Oct-25	31-Oct-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - Install Temp OH AT&T Poles for Wall J-2
UTIL-13870	Util Relo - Hang & Tie In Temp OH AT&T Fiber for Wall J-2	8	03-Nov-25	13-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - Hang & Tie In Temp OH AT&T Fiber for Wall J-2
UTIL-13880	Util Relo - AT&T Relocation for Sep Temp Widening	10	14-Nov-25	08-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - AT&T Relocation for Sep Temp Widening
UTIL-20390	Util Relo - Remove Temp Overhead AT&T Along Little Century	2	01-May-26	04-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - Remove Temp Overhead AT&T Along Little Century
UTIL-12880	Util Relo - Relocate AT&T Pull Boxes @ 96th & Vicks	5	02-Feb-27	09-Feb-27	5609 - SWD, Hol	Util Relo - Relocate AT&T Pull Boxes @ 96th & Vicks
Utility Relocations - Comms - LADOT AT&T Removals						
UTIL-20110	Util Relo - AT&T Removals - Remove Abandoned Line @ Wall D-2	5	01-May-26	07-May-26	5609 - SWD, Hol	Util Relo - AT&T Removals - Remove Abandoned Line @ Wall D-2
UTIL-10770	Util Relo - AT&T Removals - Remove Abandoned Line @ A-324	2	23-Jul-26	24-Jul-26	5609 - SWD, Hol	Util Relo - AT&T Removals - Remove Abandoned Line @ A-324
UTIL-13890	Util Relo - AT&T Removals - Remove Abandoned Line @ Abut A-A1	2	26-Jan-27	27-Jan-27	5609 - SWD, Hol	Util Relo - AT&T Removals - Remove Abandoned Line @ Abut A-A1
UTIL-12610	Util Relo - AT&T Removals - Remove Abandoned Line on 96th btwn Sep & Vicks	3	07-Jun-27	09-Jun-27	5609 - SWD, Hol	Util Relo - AT&T Removals - Remove Abandoned Line on 96th btwn Sep & Vicks
UTIL-10820	Util Relo - AT&T Removals - Remove Abandoned Line @ P2-B9	2	07-Feb-28	08-Feb-28	5609 - SWD, Hol	Util Relo - AT&T Removals - Remove Abandoned Line @ P2-B9
Utility Relocations - Comms - Install AT&T Line Along NB Sep						
UTIL-12620	Util Relo - AT&T NB Sep - Sawcut & Remove Sidewalk	3	27-Oct-25	29-Oct-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - AT&T NB Sep - Sawcut & Remove Sidewalk
UTIL-12890	Util Relo - AT&T NB Sep - Install Conduit & Pull Boxes Century to 96th	6	30-Oct-25	06-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - AT&T NB Sep - Install Conduit & Pull Boxes Century to 96th
UTIL-12900	Util Relo - AT&T NB Sep - Install Conduit & Pull Boxes Across 96th	8	07-Nov-25	16-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - AT&T NB Sep - Install Conduit & Pull Boxes Across 96th
UTIL-12910	Util Relo - AT&T NB Sep - Install Conduit & Pull Boxes 96th to 98th	4	20-Nov-25	03-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - AT&T NB Sep - Install Conduit & Pull Boxes 96th to 98th
UTIL-12920	Util Relo - AT&T NB Sep - Mandrel Conduit	1	04-Dec-25	04-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - AT&T NB Sep - Mandrel Conduit
UTIL-12930	Util Relo - AT&T NB Sep - Pull & Splice Fiber	2	08-Dec-25	09-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - AT&T NB Sep - Pull & Splice Fiber
UTIL-12940	Util Relo - AT&T NB Sep - Restore Sidewalk Along NB Sep	5	10-Dec-25	17-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - AT&T NB Sep - Restore Sidewalk Along NB Sep
Utility Relocations - Comms - LAWA FO Relocation at Seg NE						
UTIL-12630	Util Relo - LAWA FO @ Seg NE - Install Ductbank	10	15-Jun-29	26-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - LAWA FO @ Seg NE - Install Ductbank
UTIL-12950	Util Relo - LAWA FO @ Seg NE - Mandrel Conduit	2	29-Jun-29	02-Jul-29	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - LAWA FO @ Seg NE - Mandrel Conduit
UTIL-12960	Util Relo - LAWA FO @ Seg NE - LAWA Pull & Splice Fiber	20	03-Jul-29	31-Jul-29	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - LAWA FO @ Seg NE - LAWA Pull & Splice Fiber
UTIL-12970	Util Relo - LAWA FO @ Seg NE - Remove Conduit in Conflict	2	01-Aug-29	02-Aug-29	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - LAWA FO @ Seg NE - Remove Conduit in Conflict
UTIL-12980	Util Relo - LAWA FO @ Seg NE - Restore Pavement	2	03-Aug-29	05-Aug-29	5609 - SWD, Hol, TDay, Xmas, WC, Cy	Util Relo - LAWA FO @ Seg NE - Restore Pavement
Utility Relocations - Power						
Utility Relocations - Power - Sunrise OH to UG						
UTIL-20360	Util Relo - Power Sunrise OH to UG - Mob Subcontractor Permitting & Procurement	22	24-Apr-25	23-May-25	5609 - SWD, Hol	Util Relo - Power Sunrise OH to UG - Mob Subcontractor Permitting & Procurement
UTIL-20370	Util Relo - Power Sunrise OH to UG - Install Conduit, Equipment & Wiring	20	02-Jun-25	27-Jun-25	5609 - SWD, Hol	Util Relo - Power Sunrise OH to UG - Install Conduit, Equipment & Wiring
UTIL-20380	Util Relo - Power Sunrise OH to UG - LADWP Install Meter & Pull Cable	20	30-Jun-25	28-Jul-25	5609 - SWD, Hol	Util Relo - Power Sunrise OH to UG - LADWP Install Meter & Pull Cable
UTIL-20390	Util Relo - Power Sunrise OH to UG - Perform Final Terminations, Permit Restorations & Demob	10	29-Jul-25	11-Aug-25	5609 - SWD, Hol	Util Relo - Power Sunrise OH to UG - Perform Final Terminations, Permit Restorations & Demob
Utility Relocations - Power Along SB Sepulveda - LAWA Ductbank Removal @ Wall D-1						
UTIL-10520	Util Relo - Pwr SB Sep - Ductbank Rel @ Wall D-1 - Install Pull Boxes	3	26-Jan-26	28-Jan-26	5609 - SWD, Hol	Util Relo - Pwr SB Sep - Ductbank Rel @ Wall D-1 - Install Pull Boxes

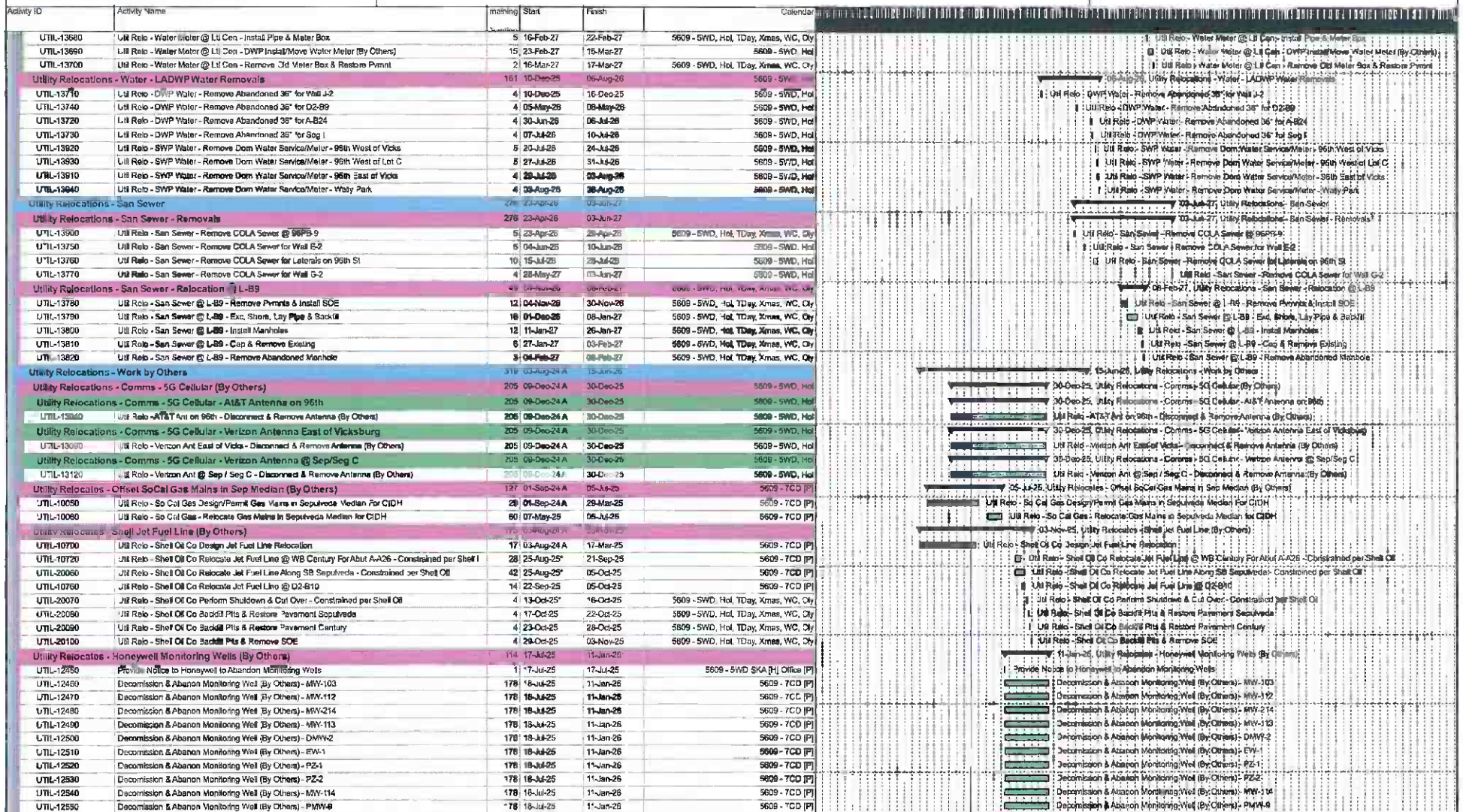
Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
UTL10540	Util Relo - Per SB Sep - Ductbank Relo @ Wall D-1 - Remove Abandoned Conduit		29-Jan-26	02-Feb-26	5609 - SWD, Hol	Util Relo - Per SB Sep - Ductbank Relo @ Wall D-1 - Remove Abandoned Conduit
Utility Relocations - Power - Removals & Relocations - Lot C						
UTL10550	Util Relo - Per Lot C - Install Conduit, Pullboxes & Meter Pedestal		20-Apr-26	24-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	20-Apr-26, Utility Relocations - Power - Removals & Relocations - Lot C
UTL10560	Util Relo - Per Lot C - LADWP Relocate Meter & Transfer Feed		20-Apr-26	22-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	20-Apr-26, Utility Relocations - Power - Removals & Relocations - Lot C - Service Relocations
UTL10570	Util Relo - Per Lot C - Restore Trench Pavement		22-May-26	27-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	22-May-26, Utility Relocations - Power - Removals & Relocations - Lot C - Service Relocations
Utility Relocations - Power - Removals & Relocations - Lot C - LADWP Ductbank Relo @ Wall G-1						
JTL10580	Util Relo - Per Wall G-1 - Install Ductbank & Prep for LADWP Tie-In		28-May-26	03-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	28-May-26, Utility Relocations - Power - Removals & Relocations - Lot C - LADWP Ductbank Relo @ Wall G-1
JTL10590	Util Relo - Per Wall G-1 - LADWP Tie-In Conduits & Pull Cable		04-Jun-26	05-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	04-Jun-26, Utility Relocations - Power - Removals & Relocations - Lot C - LADWP Ductbank Relo @ Wall G-1
JTL10600	Util Relo - Per Wall G-1 - Complete Ductbank & Backfill		05-Aug-26	06-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	05-Aug-26, Utility Relocations - Power - Removals & Relocations - Lot C - LADWP Ductbank Relo @ Wall G-1
JTL10610	Util Relo - Per Wall G-1 - Remove Old Ductbank & Equipment Pad		11-Aug-26	17-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	11-Aug-26, Utility Relocations - Power - Removals & Relocations - Lot C - LADWP Ductbank Relo @ Wall G-1
Utility Relocations - Power - Removals & Relocations - Lot C - Conduit Relo @ Seg H						
JTL10620	Util Relo - Per Seg H - Excavate & Install Conduit		18-Aug-26	20-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	18-Aug-26, Utility Relocations - Power - Removals & Relocations - Lot C - Conduit Relo @ Seg H
JTL10640	Util Relo - Per Seg H - Tie-In New Conduit & Pull Cable		21-Aug-26	24-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	21-Aug-26, Utility Relocations - Power - Removals & Relocations - Lot C - Conduit Relo @ Seg H
Utility Relocations - Power - Removals & Relocations - LADWP Ductbank Relocation Admin East						
UTL10680	Util Relo - Per @ Admin East - Install New Ductbank & Manhole		28-Aug-26	11-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	28-Aug-26, Utility Relocations - Power - Removals & Relocations - LADWP Ductbank Relocation Admin East
UTL10690	Util Relo - Per @ Admin East - LADWP Tie-In Conduits & Pull Cable		14-Sep-26	09-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	14-Sep-26, Utility Relocations - Power - Removals & Relocations - LADWP Ductbank Relocation Admin East
UTL10700	Util Relo - Per @ Admin East - Complete Ductbank & Backfill		12-Oct-26	15-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	12-Oct-26, Utility Relocations - Power - Removals & Relocations - LADWP Ductbank Relocation Admin East
UTL10710	Util Relo - Per @ Admin East - Remove Old Ductbank & Manhole		15-Oct-26	23-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	15-Oct-26, Utility Relocations - Power - Removals & Relocations - LADWP Ductbank Relocation Admin East
UTL10730	Util Relo - Per @ Admin East - Restore Trench Pavement & Sidewalk		26-Oct-26	02-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	26-Oct-26, Utility Relocations - Power - Removals & Relocations - LADWP Ductbank Relocation Admin East
Utility Relocations - Power - Removals - LADWP Ductbank						
UTL20140	Util Relo - Power - Remove Abandoned LADWP Ductbank @ A-F5		28-Nov-25	02-Dec-25	5609 - SWD, Hol	28-Nov-25, Utility Relocations - Power - Removals - LADWP Ductbank
UTL20150	Util Relo - Power - Remove Abandoned LADWP Ductbank @ Wall D-6		03-Dec-25	05-Dec-25	5609 - SWD, Hol	03-Dec-25, Utility Relocations - Power - Removals - LADWP Ductbank
UTL20160	Util Relo - Power - Remove Abandoned LADWP Ductbank Century Median		13-May-26	20-May-26	5609 - SWD, Hol	13-May-26, Utility Relocations - Power - Removals - LADWP Ductbank
UTL20120	Util Relo - Power - Remove Abandoned LADWP Ductbank @ D2-B10		21-May-26	26-May-26	5609 - SWD, Hol	21-May-26, Utility Relocations - Power - Removals - LADWP Ductbank
UTL20180	Util Relo - Power - Remove Abandoned LADWP Ductbank @ Seg I Drainage		20-Aug-26	21-Aug-26	5609 - SWD, Hol	20-Aug-26, Utility Relocations - Power - Removals - LADWP Ductbank
UTL10690	Util Relo - Power - Remove Abandoned LADWP Ductbank @ G-B3		25-Aug-26	27-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	25-Aug-26, Utility Relocations - Power - Removals - LADWP Ductbank
Utility Relocations - Power - Removals - LAWA Pylon Ductbank						
UTL20170	Util Relo - Power - Remove Abandoned LAWA Pylon Ductbank - Pylon B&C		21-Jan-26	29-Jan-26	5609 - SWD, Hol	21-Jan-26, Utility Relocations - Power - Removals - LAWA Pylon Ductbank
UTL20180	Util Relo - Power - Remove Abandoned LAWA Pylon Ductbank - Pylon M		18-Sep-26	21-Sep-26	5609 - SWD, Hol	18-Sep-26, Utility Relocations - Power - Removals - LAWA Pylon Ductbank
UTL20200	Util Relo - Power - Remove Abandoned LAWA Pylon Ductbank @ PK Ret Fill		22-Sep-26	30-Sep-26	5609 - SWD, Hol	22-Sep-26, Utility Relocations - Power - Removals - LAWA Pylon Ductbank
UTL20210	Util Relo - Power - Remove Abandoned LAWA Pylon Ductbank - SB Sep		01-Oct-26	08-Oct-26	5609 - SWD, Hol	01-Oct-26, Utility Relocations - Power - Removals - LAWA Pylon Ductbank
UTL20220	Util Relo - Power - Remove Abandoned LAWA Pylon Ductbank - w/in SB/EB Loop Ramp		09-Oct-26	18-Oct-26	5609 - SWD, Hol	09-Oct-26, Utility Relocations - Power - Removals - LAWA Pylon Ductbank
UTL20190	Util Relo - Power - Remove Abandoned LAWA Pylon Ductbank @ -A4		16-Nov-25	18-Nov-25	5609 - SWD, Hol	16-Nov-25, Utility Relocations - Power - Removals - LAWA Pylon Ductbank
UTL20230	Util Relo - Power - Remove Abandoned LAWA Pylon Ductbank - w/in EB/BB Loop Ramp		15-Jun-26	22-Jun-26	5609 - SWD, Hol	15-Jun-26, Utility Relocations - Power - Removals - LAWA Pylon Ductbank
Utility Relocations - Water						
Utility Relocations - Water - LAWA Water Relocations for Box Culvert						
UTL13050	Util Relo - LAWA H2O @ Box Cul East - Excavate & Lay Pipe		27-Oct-25	11-Dec-25	5609 - SWD, Hol	27-Oct-25, Utility Relocations - Water - LAWA Water Relocations for Box Culvert
UTL13060	Util Relo - LAWA H2O @ Box Cul East - Perform Hydrostatic Testing		27-Oct-25	25-Nov-25	5609 - SWD, Hol	27-Oct-25, Utility Relocations - Water - LAWA Water Relocations for Box Culvert
UTL13150	Util Relo - LAWA H2O @ Box Cul East - Chlorinate, Flush & Back-T		19-Oct-25	29-Oct-25	5609 - SWD, Hol	19-Oct-25, Utility Relocations - Water - LAWA Water Relocations for Box Culvert
UTL13160	Util Relo - LAWA H2O @ Box Cul East - Install Connecting Pipe & Tie-In		04-Nov-25	20-Nov-25	5609 - SWD, Hol	04-Nov-25, Utility Relocations - Water - LAWA Water Relocations for Box Culvert
UTL13170	Util Relo - LAWA H2O @ Box Cul East - Remove Abandoned Pipe & Backfill		21-Nov-25	21-Nov-25	5609 - SWD, Hol	21-Nov-25, Utility Relocations - Water - LAWA Water Relocations for Box Culvert
Utility Relocations - Water - LAWA Water Relocations for Box Culvert - West						
UTL13180	Util Relo - LAWA H2O @ Box Cul West - Excavate & Lay Pipe		30-Oct-25	07-Nov-25	5609 - SWD, Hol	30-Oct-25, Utility Relocations - Water - LAWA Water Relocations for Box Culvert - West
UTL13190	Util Relo - LAWA H2O @ Box Cul West - Perform Hydrostatic Testing		10-Nov-25	17-Nov-25	5609 - SWD, Hol	10-Nov-25, Utility Relocations - Water - LAWA Water Relocations for Box Culvert - West
UTL13200	Util Relo - LAWA H2O @ Box Cul West - Chlorinate, Flush & Back-T		18-Nov-25	03-Dec-25	5609 - SWD, Hol	18-Nov-25, Utility Relocations - Water - LAWA Water Relocations for Box Culvert - West
UTL13210	Util Relo - LAWA H2O @ Box Cul West - Install Connecting Pipe & Tie-In		04-Dec-25	04-Dec-25	5609 - SWD, Hol	04-Dec-25, Utility Relocations - Water - LAWA Water Relocations for Box Culvert - West
UTL13220	Util Relo - LAWA H2O @ Box Cul West - Remove Abandoned Pipe & Backfill		08-Dec-25	11-Dec-25	5609 - SWD, Hol	08-Dec-25, Utility Relocations - Water - LAWA Water Relocations for Box Culvert - West
Utility Relocations - Water - Watermain Relo Around Seg A on 96th St						
UTL13950	Util Relo - Water Sag A/96th - LADWP Conn & Meter - Excavate & Lay Pipe		15-Dec-25	02-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	15-Dec-25, Utility Relocations - Water - Watermain Relo Around Seg A on 96th St
UTL13960	Util Relo - Water Sag A/96th - LADWP Conn & Meter - Perform Hydrostatic Testing		05-Jan-26	09-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	05-Jan-26, Utility Relocations - Water - Watermain Relo Around Seg A on 96th St
UTL13970	Util Relo - Water Sag A/96th - LADWP Conn & Meter - Chlorinate, Flush & Back-T		12-Jan-26	16-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	12-Jan-26, Utility Relocations - Water - Watermain Relo Around Seg A on 96th St
UTL13980	Util Relo - Water Sag A/96th - LADWP Conn & Meter - Tie-In & Install Meter Box		19-Jan-26	23-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	19-Jan-26, Utility Relocations - Water - Watermain Relo Around Seg A on 96th St

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
UTIL-13990	Util Rele - Water Seg A/96th - LADWP Conn & Meter - LADWP Install New Meter	20	26-Jun-26	23-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water Seg A/96th - LADWP Conn & Meter - LADWP Install New Meter
UTIL-14000	Util Rele - Water Seg A/96th - LADWP Conn & Meter - Install/Relocate Hydrant	5	24-Feb-26	02-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water Seg A/96th - LADWP Conn & Meter - Install/Relocate Hydrant
Utility Relocations - Water - Watermain Rele Around Seg A on 96th St - LAWA Watermain						Utility Relocations - Water - Watermain Rele Around Seg A on 96th St - LAWA Watermain
UTIL-13230	Util Rele - Water Seg A/96th - Excavate & Lay Pipe - install Backflow Preventor West of Sep	9	26-Jun-27	05-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water Seg A/96th - Excavate & Lay Pipe - install Backflow Preventor West of Sep
UTIL-13240	Util Rele - Water Seg A/96th - Perform Hydrostatic Testing	5	08-Feb-27	12-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water Seg A/96th - Perform Hydrostatic Testing
UTIL-13250	Util Rele - Water Seg A/96th - Chlorinate, Flush & Bact	10	16-Feb-27	01-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water Seg A/96th - Chlorinate, Flush & Bact
UTIL-13260	Util Rele - Water Seg A/96th - Install Connecting Pipe & Tie-In	1	02-Mar-27	02-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water Seg A/96th - Install Connecting Pipe & Tie-In
UTIL-13280	Util Rele - Water Seg A/96th - Slurry Backfill Trench	2	03-Mar-27	04-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water Seg A/96th - Slurry Backfill Trench
UTIL-13270	Util Rele - Water Seg A/96th - Cap & Abandon/Remove Pipe	8	05-Mar-27	12-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water Seg A/96th - Cap & Abandon/Remove Pipe
Utility Relocations - Water - LADWP Water Rele @ Sepulveda/Century						Utility Relocations - Water - LADWP Water Rele @ Sepulveda/Century
UTIL-13280	Util Rele - Water @ Sep/Cen - Relocate Flush Out	5	16-Feb-27	22-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Sep/Cen - Relocate Flush Out
UTIL-13300	Util Rele - Water @ Sep/Cen - Relocate Vent	5	23-Feb-27	01-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Sep/Cen - Relocate Vent
UTIL-10630	Util Rele - Water @ Sep/Cen - Relocate Chart Recorder	5	02-Mar-27	08-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Sep/Cen - Relocate Chart Recorder
UTIL-10670	Util Rele - Water @ Sep/Cen - Relocate Hydrant	4	09-Mar-27	12-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Sep/Cen - Relocate Hydrant
Utility Relocations - Water - LADWP Water Relocation on 96th St						Utility Relocations - Water - LADWP Water Relocation on 96th St
UTIL-13310	Util Rele - Water on 96th - Excavate & Shore Trench	5	20-Apr-26	24-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water on 96th - Excavate & Shore Trench
UTIL-13320	Util Rele - Water on 96th - Lay Pipe & install Thrust Blocks	5	27-Apr-26	01-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water on 96th - Lay Pipe & install Thrust Blocks
UTIL-13330	Util Rele - Water on 96th - Perform Hydrostatic Testing	5	04-May-26	08-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water on 96th - Perform Hydrostatic Testing
UTIL-13340	Util Rele - Water on 96th - Chlorinate, Flush & Bact	10	11-May-26	22-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water on 96th - Chlorinate, Flush & Bact
UTIL-13350	Util Rele - Water on 96th - Install Connecting Pipe & Tie-In	4	26-May-26	29-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water on 96th - Install Connecting Pipe & Tie-In
UTIL-13360	Util Rele - Water on 96th - Cap Abandoned Pipe & Slurry Backfill Trench	3	01-Jun-26	03-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water on 96th - Cap Abandoned Pipe & Slurry Backfill Trench
UTIL-13370	Util Rele - Water on 96th - Relocate Hydrant @ Seg E	4	04-Jun-26	14-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water on 96th - Relocate Hydrant @ Seg E
UTIL-13380	Util Rele - Water on 96th - Remove Hydrant Miskaburg/96th	3	15-Jun-26	17-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water on 96th - Remove Hydrant Miskaburg/96th
UTIL-13400	Util Rele - Water on 96th - Install CWP Hydrant @ Seg C	5	26-Jun-27	01-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water on 96th - Install CWP Hydrant @ Seg C
UTIL-13390	Util Rele - Water on 96th - Relocate Hydrant @ Seg H	4	07-Jun-27	10-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water on 96th - Relocate Hydrant @ Seg H
Utility Relocations - Water - LAWA Water Relocations in CTA						Utility Relocations - Water - LAWA Water Relocations in CTA
UTIL-13410	Util Rele - Water @ CTA - Relocate Line @ Bent L-1/2WA	5	20-Apr-26	27-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ CTA - Relocate Line @ Bent L-1/2WA
UTIL-13420	Util Rele - Water @ CTA - Relocate Hydrant @ Seg G	5	23-Apr-26	27-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ CTA - Relocate Hydrant @ Seg G
UTIL-13430	Util Rele - Water @ CTA - Set Back Admin East FDC @ Seg K	4	15-Jun-26	21-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ CTA - Set Back Admin East FDC @ Seg K
Utility Relocations - Water - LAWA Water Relocations in CTA - @ Wall L-1						Utility Relocations - Water - LAWA Water Relocations in CTA - @ Wall L-1
UTIL-13440	Util Rele - Water @ Wall L-1 - Sawcut & Remove Pavement	3	28-Apr-26	30-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Wall L-1 - Sawcut & Remove Pavement
UTIL-13450	Util Rele - Water @ Wall L-1 - Excavate & Lay Pipe	3	01-May-26	05-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Wall L-1 - Excavate & Lay Pipe
UTIL-13460	Util Rele - Water @ Wall L-1 - Perform Hydrostatic Testing	5	26-May-26	12-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Wall L-1 - Perform Hydrostatic Testing
UTIL-13470	Util Rele - Water @ Wall L-1 - Chlorinate, Flush & Bact	10	13-May-26	27-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Wall L-1 - Chlorinate, Flush & Bact
UTIL-13480	Util Rele - Water @ Wall L-1 - Install Connecting Pipe & Tie-In	1	28-May-26	28-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Wall L-1 - Install Connecting Pipe & Tie-In
UTIL-13490	Util Rele - Water @ Wall L-1 - Backfill Trench & Restore Pavement	4	29-May-26	13-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Wall L-1 - Backfill Trench & Restore Pavement
Utility Relocations - Water - LAWA Water Relocations in CTA - @ Wall N-2						Utility Relocations - Water - LAWA Water Relocations in CTA - @ Wall N-2
UTIL-13510	Util Rele - Water @ Wall N-2 - Sawcut, Remove Pavement & Install SOE	5	05-May-26	12-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Wall N-2 - Sawcut, Remove Pavement & Install SOE
UTIL-13520	Util Rele - Water @ Wall N-2 - Excavate & Lay Pipe	5	09-May-26	19-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Wall N-2 - Excavate & Lay Pipe
UTIL-13530	Util Rele - Water @ Wall N-2 - Perform Hydrostatic Testing	5	20-May-26	27-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Wall N-2 - Perform Hydrostatic Testing
UTIL-13540	Util Rele - Water @ Wall N-2 - Chlorinate, Flush & Bact	10	28-May-26	15-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Wall N-2 - Chlorinate, Flush & Bact
UTIL-13550	Util Rele - Water @ Wall N-2 - Install Connecting Pipe & Tie-In	2	15-Jun-26	17-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Wall N-2 - Install Connecting Pipe & Tie-In
UTIL-13560	Util Rele - Water @ Wall N-2 - Remove SOE, Backfill & Restore Pavement	5	20-Jun-26	24-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Wall N-2 - Remove SOE, Backfill & Restore Pavement
UTIL-13570	Util Rele - Water @ Wall N-2 - Remove Abandoned Pipe	5	27-Jun-26	31-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water @ Wall N-2 - Remove Abandoned Pipe
Utility Relocations - Water - LAWA Water Relocations in CTA - Backflow @ Seg V						Utility Relocations - Water - LAWA Water Relocations in CTA - Backflow @ Seg V
UTIL-13580	Util Rele - Backflow @ Seg V - Sawcut, Remove Pavement & Install SOE	7	20-May-26	26-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Backflow @ Seg V - Sawcut, Remove Pavement & Install SOE
UTIL-13590	Util Rele - Backflow @ Seg V - Excavate & Lay Pipe, install BF Preventions	8	01-Jun-26	15-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Backflow @ Seg V - Excavate & Lay Pipe, install BF Preventions
UTIL-13600	Util Rele - Backflow @ Seg V - Perform Hydrostatic Testing	5	16-Jun-26	22-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Backflow @ Seg V - Perform Hydrostatic Testing
UTIL-13610	Util Rele - Backflow @ Seg V - Chlorinate, Flush & Bact	10	23-Jun-26	05-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Backflow @ Seg V - Chlorinate, Flush & Bact
UTIL-13620	Util Rele - Backflow @ Seg V - Install Connecting Pipe & Tie-In	3	06-Jul-26	10-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Backflow @ Seg V - Install Connecting Pipe & Tie-In
UTIL-13630	Util Rele - Backflow @ Seg V - Remove SOE, Backfill & Restore Trench	7	11-Aug-26	19-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Backflow @ Seg V - Remove SOE, Backfill & Restore Trench
UTIL-13640	Util Rele - Backflow @ Seg V - Remove Abandoned Pipe	2	25-Oct-27	27-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Backflow @ Seg V - Remove Abandoned Pipe
Utility Relocations - Water - Relocations SB Sepulveda So of Century						Utility Relocations - Water - Relocations SB Sepulveda So of Century
UTIL-13650	Util Rele - Water SB Sep So of Cen - Set Back Hydrant @ SB Loop Ramp	4	15-Jul-26	21-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water SB Sep So of Cen - Set Back Hydrant @ SB Loop Ramp
UTIL-13660	Util Rele - Water SB Sep So of Cen - Set Back FDC @ SB Loop Ramp	4	22-Jul-26	27-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water SB Sep So of Cen - Set Back FDC @ SB Loop Ramp
UTIL-13670	Util Rele - Water SB Sep So of Cen - Relocation at Exit Dep/Sep Ramp	5	10-May-29	16-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water SB Sep So of Cen - Relocation at Exit Dep/Sep Ramp
Utility Relocations - Water - Relocations SB Sepulveda So of Century - Meter @ Little Century						Utility Relocations - Water - Relocations SB Sepulveda So of Century - Meter @ Little Century
UTIL-13680	Util Rele - Water SB Sep So of Cen - Set Back Hydrant @ SB Loop Ramp	4	15-Jul-26	21-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water SB Sep So of Cen - Set Back Hydrant @ SB Loop Ramp
UTIL-13690	Util Rele - Water SB Sep So of Cen - Set Back FDC @ SB Loop Ramp	4	22-Jul-26	27-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water SB Sep So of Cen - Set Back FDC @ SB Loop Ramp
UTIL-13700	Util Rele - Water SB Sep So of Cen - Relocation at Exit Dep/Sep Ramp	5	10-May-29	16-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Day	Util Rele - Water SB Sep So of Cen - Relocation at Exit Dep/Sep Ramp

■ Actual Work
 ■ Critical Remaining Work
 ■ Remaining Work
 ◆ Milestone
 ■ Summary



Actual Work Critical Remaining Work Summary
Remaining Work Milestone

SKANSKA FLATIRON

ATMP PRELIMINARY CONSTRUCTION SCHEDULE

Update 20-C

Activity ID	Activity Name	Planning	Start	Finish	Calendar
UTIL-12560	Decommission & Abandon Monitoring Well (By Others) - PMW-8		178 18-Jul-25	11-Jan-26	5609 - TCD [P]
UTIL-12570	Decommission & Abandon Monitoring Well (By Others) - MW-102		178 18-Jul-25	11-Jan-26	5609 - TCD [P]
UTIL-12580	Decommission & Abandon Monitoring Well (By Others) - MW-2125/D		178 18-Jul-25	11-Jan-26	5609 - TCD [P]
UTIL-12590	Decommission & Abandon Monitoring Well (By Others) - MW-2130		178 18-Jul-25	11-Jan-26	5609 - TCD [P]
UTIL-12600	Decommission & Abandon Monitoring Well (By Others) - MW-2135		178 18-Jul-25	11-Jan-26	5609 - TCD [P]
Utility Relocations - Power at Vicksburg Interface with A & D - DWP OH to UG (by Others)			319 31-Aug-24 A	15-Jun-25	5609 - SWD, Hol
UTIL-12540	Util Relo - DWP Remove OH 34.5kV & 4.8kV Power on Vicksburg - 38th to DS-111 by Others		32 31-Aug-24 A	15-Apr-25	5609 - SWD, Hol
UTIL-12990	Util Relo - DWP Remove OH 4.8kV Power on Vicksburg - DS-111 to 98th St Properties		32 31-Aug-24 A	15-Apr-25	5609 - SWD, Hol
UTIL-13020	Util Relo - Provide Stop Service Request to DWP for 98th St Properties		10 13-Nov-25	26-Nov-25	5609 - SWD, Hol
UTIL-13000	Util Relo - DWP Remove OH 4.8kV Service Feeds on 98th St		20 01-Dec-25	08-Jan-26	5609 - SWD, Hol
UTIL-13030	Util Relo - Provide Stop/Transfer Request to DWP for Sunrise OH Feed		5 27-Apr-26	01-May-26	5609 - SWD, Hol
UTIL-13010	Util Relo - DWP Remove OH Power to Sunrise & IHL		20 04-May-26	01-Jun-26	5609 - SWD, Hol
UTIL-11070	Util Relo - Vicksburg Comm OH to UG - Remove Ex OH Wire & Poles		10 02-Jun-26	15-Jun-26	5609 - SWD, Hol
Utility Relocations - Power - OH to UG @ Abut A-A1 (by Others)			281 01-Mar-25	21-Apr-26	
UTIL-11050	Util Relo - DWP Pwr S8 Sep - Relocate OH Power West of Sep		214 01-Mar-25	30-Sep-25	5609 - TCD [P]
UTIL-10460	Util Relo - DWP Pwr S8 Sep - Remove Ex Poles West of Sep		10 06-Apr-26	21-Apr-26	5609 - SWD, Hol
Utility Relocations - Gas & Oil Removals			288 21-Nov-25	17-Feb-27	5609 - SWD, Hol
UTIL-20270	Util Relo - Gas Removals - Remove Abandoned Gas Line @ Wall J2		3 21-Nov-25	25-Nov-25	5609 - SWD, Hol
UTIL-20240	Util Relo - Oil Removals - Remove Abandoned Oil Lines @ D2-D10 & Seg P		3 18-May-26	20-May-26	5609 - SWD, Hol
UTIL-20310	Util Relo - Gas Removals - Remove Abandoned Gas Line @ Seg P		2 27-May-26	28-May-26	5609 - SWD, Hol
UTIL-10740	Util Relo - Oil Removals - Remove Abandoned Oil Lines @ Abut A-A26		5 29-Jul-26	04-Aug-26	5609 - SWD, Hol
UTIL-20280	Util Relo - Gas Removals - Remove Abandoned Gas Line @ Abut A-A26		2 05-Aug-26	06-Aug-26	5609 - SWD, Hol
UTIL-20290	Util Relo - Gas Removals - Remove Abandoned Gas Line @ A-B25		3 07-Aug-26	11-Aug-26	5609 - SWD, Hol
UTIL-20250	Util Relo - Oil Removals - Remove Abandoned Oil Lines @ Seg I Drainage		4 12-Aug-26	17-Aug-26	5609 - SWD, Hol
UTIL-20300	Util Relo - Gas Removals - Remove Abandoned Gas Line @ Seg I Drainage		2 18-Aug-26	19-Aug-26	5609 - SWD, Hol
UTIL-20260	Util Relo - Gas Removals - Remove Abandoned Gas Line @ A & D1 Median Bents		4 24-Nov-26	01-Dec-26	5609 - SWD, Hol
UTIL-20260	Util Relo - Oil Removals - Remove Abandoned Oil Lines @ Wall D-2		3 26-Jan-27	28-Jan-27	5609 - SWD, Hol
UTIL-20340	Util Relo - Gas Removals - Remove Abandoned Gas Line 98th West of Sep		4 26-Jan-27	28-Jan-27	5609 - SWD, Hol
UTIL-20330	Util Relo - Gas Removals - Remove Abandoned Gas Line in Sep Median		6 05-Feb-27	17-Feb-27	5609 - SWD, Hol
Construction			712 16-Aug-25	23-Jun-26	
Const | Stage 1			703 18-Aug-25	23-Jun-26	
Const | St 1 | Preparatory Work			703 18-Aug-25	23-Jun-26	
Const | St 1 | Preparatory Work | Segment J			27 27-Oct-25	15-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-19620	S1 - PW Seg J - Close Existing Slip Ramp NB Sep to Vicksburg & Modify Intersection		2 27-Oct-25	28-Oct-25	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-41369	S1 - PW Seg J - Set K-Rail & Fencing to Establish Work Area		3 14-Nov-25	18-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-41370	S1 - PW Seg J - Install Site Specific E&S Measures		2 19-Nov-25	20-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-41390	S1 - PW Seg J - Demo Slip Ramp Pavement & Hardscapes		6 31-Dec-25	30-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-41400	S1 - PW Seg J - Remove Trees, Clear & Grub Slip Ramp Yard		3 10-Dec-25	15-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Cty
Const | St 1 | Preparatory Work | Century Infield Area			48 03-May-26	07-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-15670	S1 - PW CIA - Remove Palm Trees & Existing Median For Segment A Over Century		6 05-May-26	12-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-47531	S1 - PW CIA - Remove Existing OH Signs & Fndns Century		2 13-May-26	14-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-15801	S1 - PW CIA - Establish Yard for Abut A-A26 / Install E&S Measures		5 13-Jul-26	17-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-41440	S1 - PW CIA - Remove Street Lights & Fndns Departures Ramp (Old J)		6 15-Jul-26	22-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-41420	S1 - PW CIA - Clear & Grub Infield for Abut A-A26		3 20-Jul-26	22-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-41430	S1 - PW CIA - Remove Pavements World Way Ramp (Old J)		4 23-Jul-26	28-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-15720	S1 - PW CIA - Grade Temp Infield For Abut A-A26		4 31-Jul-26	05-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-15650	S1 - PW CIA - Grade Infield for Oscillator & Crane Access		7 06-Aug-26	07-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
Const | St 1 | Preparatory Work | Remove & Salvage Gateway Features			909 27-Oct-25	23-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-53761	S1 - LAVA Shutoff of Pylon & Monument Lighting @ Source		5 27-Oct-25	31-Oct-25	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-15710	S1 - Remove & Salvage LAX Monument Signs / Remove Foundations (Infield)		10 23-Jul-26	05-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-42400	S1 - Remove 911 Memorial		10 06-Aug-26	19-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-42410	S1 - Remove & Salvage LAX Monument Signs / Remove Foundations (CIA)		5 16-Jun-26	22-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
Const | St 1 | Preparatory Work | Remove & Salvage Gateway Features | Rem Gateway Pylons			308 03-Nov-25	12-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-42560	S1 - PW CIA - Remove Off-Site Pylon 13		7 03-Nov-25	12-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-41480	S1 - PW CIA - Remove Pylon "15"		9 13-Nov-25	03-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-42380	S1 - PW CIA - Remove Pylons "B" & "C"		18 04-Dec-25	14-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty
CON-41490	S1 - PW CIA - Remove Pylons "L" & "M"		18 20-Aug-26	15-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Page 30 of 118

ATMP Rdwy Imp | Baseline Schedule | UP20 - Partial Relief of
FIFA FW Over Sep / Cent

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-41620	S1 - PW CIA - Remove Pylon "K"		9 16-Sep-26	28-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-41480	S1 - PW CIA - Remove Pylon "D"		9 29-Sep-26	09-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-41480	S1 - PW CIA - Remove Pylons "E" & "G"		16 12-Oct-26	04-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-41470	S1 - PW CIA - Remove Pylon "H"		9 05-Nov-26	19-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-42350	S1 - PW CIA - Remove Pylon "N"		9 19-Nov-26	10-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-42370	S1 - PW CIA - Remove Pylon "O"		9 14-Dec-26	05-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-42390	S1 - PW CIA - Remove Pylon "A"		9 11-Jan-27	21-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-42730	S1 - PW CIA - Remove Off-Site Pylons 9 & 10		14 22-Jan-27	10-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-42840	S1 - PW CIA - Remove Off-Site Pylons 5 & 6		14 11-Feb-27	03-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-42850	S1 - PW CIA - Remove Off-Site Pylons 3 & 4		14 04-Mar-27	23-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-42860	S1 - PW CIA - Remove Off-Site Pylon 2		7 24-Mar-27	01-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-42970	S1 - PW CIA - Remove Off-Site Pylon 1		7 28-Apr-27	12-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | St 1 | Preparatory Work | Establish Construction Yards			120 18-Nov-26	24-Feb-26	5609 - SWD, Hol	
Const | St 1 | Preparatory Work | Establish Construction Yards | Wally Park / LACC Yard			52 13-Nov-25	24-Feb-26	5609 - SWD, Hol	
CON-42520	S1 - PW WPLACC - Install Construction Gates & Signage		6 13-Nov-25	19-Nov-25	5609 - SWD, Hol	
CON-15600	S1 - PW WPLACC - Install E&S Measures		3 20-Nov-25	24-Nov-25	5609 - SWD, Hol	
CON-15610	S1 - PW WPLACC - Establish Water Sources For Dust Control		2 25-Nov-25	26-Nov-25	5609 - SWD, Hol	
CON-27060	S1 - PW WPLACC - Cut & Cap Utilities For Building Demolition - Wally Park		5 01-Dec-25	08-Dec-25	5609 - SWD, Hol	
CON-42550	S1 - PW WPLACC - Remove Fencing East of Wally/LACC Bldg		2 01-Dec-25	02-Dec-25	5609 - SWD, Hol	
CON-27050	S1 - PW WPLACC - Cut & Cap Utilities For Building Demolition - LACC		20 03-Dec-25	12-Jan-26	5609 - SWD, Hol	
CON-27730	S1 - PW WPLACC - Remove Parking Lot Light Poles & Foundations		8 09-Dec-25	10-Dec-25	5609 - SWD, Hol	
CON-27040	S1 - PW WPLACC - Building Demolition - LACC		15 13-Jan-26	02-Feb-26	5609 - SWD, Hol	
CON-53771	S1 - PW WPLACC - Remove 30 Boards & Findings		10 13-Jan-26	26-Jan-26	5609 - SWD, Hol	
CON-27030	S1 - PW WPLACC - Building Demolition - Wally Park		16 03-Feb-26	24-Feb-26	5609 - SWD, Hol	
Const | St 1 | Preparatory Work | Establish Construction Yards | Park One			14 27-Dec-25	14-Nov-25	5609 - SWD, Hol	
CON-27740	S1 - PW Park One - LANA Turnover Const Easement		1 27-Oct-25	27-Oct-25	5609 - SWD, Hol	
CON-27750	S1 - PW Park One - Install Const Gates & Signage		5 28-Oct-25	03-Nov-25	5609 - SWD, Hol	
CON-27760	S1 - PW Park One - Install E&S Measures		3 04-Nov-25	06-Nov-25	5609 - SWD, Hol	
CON-41800	S1 - PW Park One - Sawcut & Remove Permits		6 07-Nov-25	14-Nov-25	5609 - SWD, Hol	
Const | St 1 | Preparatory Work | Establish Construction Yards | Jetway Yard			18 18-Aug-25	11-Sep-25	5609 - SWD, Hol	
CON-45250	S1 - PW Jetway - Install Construction Gates & Signage		5 18-Aug-25	22-Aug-25	5609 - SWD, Hol	
CON-45260	S1 - PW Jetway - Install E&S Measures		3 25-Aug-25	27-Aug-25	5609 - SWD, Hol	
CON-53781	S1 - PW Jetway - Remove Bldg Foundation in Conflict w/ CDH		10 28-Aug-25	14-Sep-25	5609 - SWD, Hol	
Const | St 1 | Preparatory Work | Establish Construction Yards | Sunrise/Taxi Yard			6 13-Nov-25	24-Nov-25	5609 - SWD, Hol	
CON-45270	S1 - PW Sunrise/Taxi - Install Construction Gates & Signage		5 13-Nov-25	19-Nov-25	5609 - SWD, Hol	
CON-45280	S1 - PW Sunrise/Taxi - Install E&S Measures		3 20-Nov-25	24-Nov-25	5609 - SWD, Hol	
Const | St 1 | Preparatory Work | Establish Construction Yards | Lincoln Falsework Yard			48 27-Dec-25	19-Jan-26	5609 - SWD, Hol	
CON-45310	S1 - PW Lincoln - LANA Finalizes Construction Easement & Provides Access		1 27-Oct-25	27-Oct-25	5609 - SWD, Hol	
CON-45290	S1 - PW Lincoln - Install Construction Gates & Signage		6 29-Oct-25	03-Nov-25	5609 - SWD, Hol	
CON-45300	S1 - PW Lincoln - Install E&S Measures		3 04-Nov-25	06-Nov-25	5609 - SWD, Hol	
CON-45320	S1 - PW Lincoln - Import PW Materials & Assemble Initial Bents		10 07-Nov-25	15-Jan-26	5609 - SWD, Hol	
Const | St 1 | Preparatory Work | Establish Construction Yards | T9 Yard			9 18-Aug-25	28-Aug-25	5609 - SWD, Hol	
CON-45330	S1 - PW T9 - LANA Finalizes Construction Easement & Provides Access		1 18-Aug-25	18-Aug-25	5609 - SWD, Hol	
CON-45340	S1 - PW T9 - Install Construction Gates & Signage		5 19-Aug-25	25-Aug-25	5609 - SWD, Hol	
CON-45350	S1 - PW T9 - Install E&S Measures		3 26-Aug-25	28-Aug-25	5609 - SWD, Hol	
Const | St 1 | Temp Widening of SB Sep for A3/D3 Bridges			6 12-Apr-26	15-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-47351	S1 - Temp Widening of SB Sep for A3/D3 Bents - Establish MOT Measures		2 22-Apr-26	23-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-15700	S1 - Temp Widening of SB Sep for A3/D3 Bents - Relocate Street Lighting		2 24-Apr-26	27-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-15730	S1 - Temp Widening of SB Sep for A3/D3 Bents - Demolition & Removals		3 28-Apr-26	30-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-15740	S1 - Temp Widening of SB Sep for A3/D3 Bents - Roadway Excavation		3 01-May-26	05-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-15750	S1 - Temp Widening of SB Sep for A3/D3 Bents - Fine Grade Subgrade		2 05-May-26	07-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-15760	S1 - Temp Widening of SB Sep for A3/D3 Bents - Place ABC		2 08-May-26	11-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-15770	S1 - Temp Widening of SB Sep for A3/D3 Bents - Fine Grade ABC		1 12-May-26	12-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-15790	S1 - Temp Widening of SB Sep for A3/D3 Bents - Place Temporary HMA		1 13-May-26	13-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-47361	S1 - Temp Widening of SB Sep for A3/D3 Bents - Adjust MOT Measures		2 14-May-26	16-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | St 1 | Temp Paving | Century Blvd			162 15-Jul-26	24-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
Const | S1 | Temp Paving | Century Blvd | EB Widening			46-28-Feb-26	30-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	30-Apr-26, Const | S1 | Temp Paving | Century Blvd | EB Widening
CON-47371	S1 - EB Widening - Establish MOT Measures		2-26-Feb-26	27-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - EB Widening - Establish MOT Measures
CON-51091	S1 - EB Widening - Clear & Grub		4-32-Mar-26	25-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - EB Widening - Clear & Grub
CON-47381	S1 - EB Widening - Install Temp Drainage		5-36-Mar-26	12-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - EB Widening - Install Temp Drainage
CON-42530	S1 - EB Widening - Relocate Street Lighting		3-13-Mar-26	17-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - EB Widening - Relocate Street Lighting
CON-16280	S1 - EB Widening - Demo Existing Curb		3-18-Mar-26	20-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - EB Widening - Demo Existing Curb
CON-16330	S1 - EB Widening - Roadway Exc & Prep Subgrade		10-30-Mar-26	10-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - EB Widening - Roadway Exc & Prep Subgrade
CON-16300	S1 - EB Widening - Place & Fine Grade Agg Base		6-13-Apr-26	20-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - EB Widening - Place & Fine Grade Agg Base
CON-16310	S1 - EB Widening - Place AC Pavement & Dike		2-21-Apr-26	22-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - EB Widening - Place AC Pavement & Dike
CON-16320	S1 - EB Widening - Install Temp Rdwy Finishes		4-23-Apr-26	28-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - EB Widening - Install Temp Rdwy Finishes
CON-47801	S1 - EB Widening - Shift Traffic to Temp EB Widening		2-29-Apr-26	30-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - EB Widening - Shift Traffic to Temp EB Widening
Const | S1 | Temp Paving | Century Blvd | WB for Seg 1			32-22-Sep-26	04-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	04-Nov-26, Const | S1 | Temp Paving | Century Blvd | WB for Seg 1
CON-47421	S1 - Widening @ I-44 - Establish MOT Measures		2-22-Sep-26	23-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Widening @ I-44 - Establish MOT Measures
CON-47431	S1 - Widening @ I-44 - Clear & Grub		2-24-Sep-26	25-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Widening @ I-44 - Clear & Grub
CON-47441	S1 - Widening @ I-44 - Place Embankment		14-28-Sep-26	5-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Widening @ I-44 - Place Embankment
CON-45360	S1 - Widening @ I-44 - Demo Existing Curb		3-16-Oct-26	20-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Widening @ I-44 - Demo Existing Curb
CON-15410	S1 - Widening @ I-44 - Fine Grd Subgrade		2-21-Oct-26	22-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Widening @ I-44 - Fine Grd Subgrade
CON-45380	S1 - Widening @ I-44 - Place & Fine Grade Agg Base		3-23-Oct-26	27-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Widening @ I-44 - Place & Fine Grade Agg Base
CON-45390	S1 - Widening @ I-44 - Place AC Pavement & Dike		2-28-Oct-26	29-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Widening @ I-44 - Place AC Pavement & Dike
CON-45400	S1 - Widening @ I-44 - Install Temp Rdwy Finishes		4-30-Oct-26	04-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Widening @ I-44 - Install Temp Rdwy Finishes
Const | S1 | Temp Paving | Century Blvd | Hook Ramp			49-15-Jan-26	17-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	17-Mar-26, Const | S1 | Temp Paving | Century Blvd | Hook Ramp
CON-47451	S1 - Hook Ramp - Establish MOT Measures		2-15-Jan-26	16-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Hook Ramp - Establish MOT Measures
CON-47461	S1 - Hook Ramp - Clear & Grub		2-19-Jan-26	20-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Hook Ramp - Clear & Grub
CON-47471	S1 - Hook Ramp - Place Embankment		8-27-Jan-26	03-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Hook Ramp - Place Embankment
CON-45490	S1 - Hook Ramp - Relocate Street Lighting		3-04-Feb-26	05-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Hook Ramp - Relocate Street Lighting
CON-45430	S1 - Hook Ramp - Demo Existing Curb		3-09-Feb-26	11-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Hook Ramp - Demo Existing Curb
CON-47481	S1 - Hook Ramp - Install Temp Drainage		10-12-Feb-26	26-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Hook Ramp - Install Temp Drainage
CON-45480	S1 - Hook Ramp - Fine Grd Subgrade		3-27-Feb-26	03-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Hook Ramp - Fine Grd Subgrade
CON-45490	S1 - Hook Ramp - Place & Fine Grade Agg Base		4-04-Mar-26	09-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Hook Ramp - Place & Fine Grade Agg Base
CON-45460	S1 - Hook Ramp - Place AC Pavement & Dike		2-10-Mar-26	11-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Hook Ramp - Place AC Pavement & Dike
CON-45470	S1 - Hook Ramp - Install Temp Rdwy Finishes		4-12-Mar-26	17-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Hook Ramp - Install Temp Rdwy Finishes
Const | S1 | Temp Paving | Century Blvd | WB Crossover			38-01-May-26	24-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	24-Jul-26, Const | S1 | Temp Paving | Century Blvd | WB Crossover
CON-47491	S1 - WB Crossover - Establish MOT Measures for Temp Crossover		2-01-May-26	04-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - WB Crossover - Establish MOT Measures for Temp Crossover
CON-47391	S1 - WB X-Over - Modify Traffic Signals @ Jctwy/Century		3-05-May-26	07-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - WB X-Over - Modify Traffic Signals @ Jctwy/Century
CON-16240	S1 - WB X-Over - Demo Existing Curb & Permit		6-08-May-26	15-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - WB X-Over - Demo Existing Curb & Permit
CON-16250	S1 - WB X-Over - Perform Rdwy Exc & Fine Grd Subgrade		6-18-May-26	28-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - WB X-Over - Perform Rdwy Exc & Fine Grd Subgrade
CON-16260	S1 - WB X-Over - Place & Fine Grade Agg Base		6-27-May-26	13-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - WB X-Over - Place & Fine Grade Agg Base
CON-16270	S1 - WB X-Over - Place AC Pavements & Dikes		6-34-Jun-26	15-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - WB X-Over - Place AC Pavements & Dikes
CON-47401	S1 - WB X-Over - Install Temp Street Lighting		3-16-Jul-26	20-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - WB X-Over - Install Temp Street Lighting
CON-47411	S1 - WB X-Over - Install Temp Rdwy Finishes		4-21-Jul-26	24-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - WB X-Over - Install Temp Rdwy Finishes
Const | S1 | Temp Paving | Little Century Turn Pocket Widening			6-08-Apr-26	15-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	15-Apr-26, Const | S1 | Temp Paving | Little Century Turn Pocket Widening
CON-47851	S1 - LCIP - Remove Pavements & Hardscapes		2-38-Apr-26	39-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - LCIP - Remove Pavements & Hardscapes
CON-47901	S1 - LCIP - Prep Subgrade & Place Agg Base		2-10-Apr-26	13-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - LCIP - Prep Subgrade & Place Agg Base
CON-47911	S1 - LCIP - Place Asphalt Pavement & Dike		2-14-Apr-26	15-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - LCIP - Place Asphalt Pavement & Dike
Const | S1 | Temp Paving | Airport Return Loop for L			15-27-Oct-25	17-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	17-Nov-25, Const | S1 | Temp Paving | Airport Return Loop for L
CON-15290	S1 - Return Loop - Demo Existing Curb		2-27-Oct-25	28-Oct-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Return Loop - Demo Existing Curb
CON-15310	S1 - Return Loop - Perform Rdwy Exc & Fine Grd Subgrade		2-29-Oct-25	30-Oct-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Return Loop - Perform Rdwy Exc & Fine Grd Subgrade
CON-15320	S1 - Return Loop - Place & Fine Grade Agg Base		2-31-Oct-25	03-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Return Loop - Place & Fine Grade Agg Base
CON-15330	S1 - Return Loop - Place AC Pavement & Dike		3-04-Nov-25	06-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Return Loop - Place AC Pavement & Dike
CON-15340	S1 - Return Loop - Install K-Rail		1-07-Nov-25	07-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - Return Loop - Install K-Rail
Const | S1 | Cen Access | Seg L | Temp Paving | Airport Return Loop for L | WW North Median			5-10-Nov-25	17-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	17-Nov-25, Const | S1 | Cen Access | Seg L | Temp Paving | Airport Return Loop for L | WW North Median
CON-15350	S1 - WW North Median - Demo Existing Curb		1-10-Nov-25	10-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - WW North Median - Demo Existing Curb
CON-15360	S1 - WW North Median - Perform Rdwy Exc & Fine Grd Subgrade		1-12-Nov-25	12-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - WW North Median - Perform Rdwy Exc & Fine Grd Subgrade
CON-15370	S1 - WW North Median - Place & Fine Grade Agg Base		2-13-Nov-25	14-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - WW North Median - Place & Fine Grade Agg Base
CON-15380	S1 - WW North Median - Place ACP		1-17-Nov-25	17-Nov-25	5609 - SWD, Hol, TDay, Xmas, WC, Cy	1 S1 - WW North Median - Place ACP
Const | S1 | LAYA Box Culvert South of Century			128-28-Nov-25	12-May-26		12-May-26, Const | S1 | LAYA Box Culvert South of Century

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar
Const | St 1 | LAWA Box Culvert South of Century - Line A Box Culvert					
Const | St 1 | LAWA Box Culvert South of Century - Line A Box Culvert - Section 1					
UTIL-11170	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 1 - Excavate & Shore	3	25-Nov-25	02-Dec-25	5609 - SWD, Hol
UTIL-11180	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 1 - Place & Grade Bedding	2	03-Dec-25	04-Dec-25	5609 - SWD, Hol
UTIL-11190	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 1 - Sawcut Existing & Prep for Tie-In	2	08-Dec-25	09-Dec-25	5609 - SWD, Hol
UTIL-11200	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 1 - FRP Invert	5	10-Dec-25	17-Dec-25	5609 - SWD, Hol
JTIL-11210	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 1 - Form Interior	2	18-Dec-25	22-Dec-25	5609 - SWD, Hol
JTIL-11220	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 1 - Place Wall & Soffit Rebar	2	23-Dec-25	28-Dec-25	5609 - SWD, Hol
JTIL-11230	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 1 - Form Exterior & Bulkheads	2	30-Dec-25	05-Jan-26	5609 - SWD, Hol
JTIL-11240	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 1 - Place Concrete	1	06-Jan-26	06-Jan-26	5609 - SWD, Hol
JTIL-11250	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 1 - Cure Concrete	7	07-Jan-26	13-Jan-26	5609 - TCD [P]
JTIL-11260	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 1 - Strip Interior Forms	2	14-Jan-26	15-Jan-26	5609 - SWD, Hol
JTIL-11270	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 1 - Strip Bulkheads & Prep CJs	1	15-Jan-26	16-Jan-26	5609 - SWD, Hol
Const | St 1 | LAWA Box Culvert South of Century - Line A Box Culvert - Section 2					
UTIL-11280	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 2 - Excavate & Shore	3	08-Dec-25	10-Dec-25	5609 - SWD, Hol
UTIL-11290	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 2 - Place & Grade Bedding	2	11-Dec-25	15-Dec-25	5609 - SWD, Hol
UTIL-11310	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 2 - FRP Invert	5	18-Dec-25	30-Dec-25	5609 - SWD, Hol
UTIL-11320	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 2 - Form Interior	2	05-Jan-26	06-Jan-26	5609 - SWD, Hol
UTIL-11330	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 2 - Place Wall & Soffit Rebar	2	07-Jan-26	08-Jan-26	5609 - SWD, Hol
UTIL-11340	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 2 - Form Exterior & Bulkheads	2	15-Jan-26	16-Jan-26	5609 - SWD, Hol
UTIL-11350	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 2 - Place Concrete	1	19-Jan-26	19-Jan-26	5609 - SWD, Hol
UTIL-11360	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 2 - Cure Concrete	7	20-Jan-26	26-Jan-26	5609 - TCD [P]
UTIL-11370	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 2 - Strip Interior Forms	2	27-Jan-26	28-Jan-26	5609 - SWD, Hol
UTIL-11380	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 2 - Strip Bulkheads & Prep CJs	1	29-Jan-26	29-Jan-26	5609 - SWD, Hol
Const | St 1 | LAWA Box Culvert South of Century - Line A Box Culvert - Section 3					
UTIL-11390	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 3 - Excavate & Shore	3	18-Dec-25	18-Dec-25	5609 - SWD, Hol
UTIL-11400	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 3 - Place & Grade Bedding	2	22-Dec-25	23-Dec-25	5609 - SWD, Hol
UTIL-11410	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 3 - FRP Invert	5	05-Jan-26	06-Jan-26	5609 - SWD, Hol
UTIL-11420	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 3 - Form Interior	2	19-Jan-26	20-Jan-26	5609 - SWD, Hol
UTIL-11430	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 3 - Place Wall & Soffit Rebar	2	21-Jan-26	22-Jan-26	5609 - SWD, Hol
UTIL-11440	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 3 - Form Exterior & Bulkheads	2	30-Jan-26	02-Feb-26	5609 - SWD, Hol
UTIL-11450	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 3 - Place Concrete	1	03-Feb-26	03-Feb-26	5609 - SWD, Hol
UTIL-11460	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 3 - Cure Concrete	7	04-Feb-26	10-Feb-26	5609 - TCD [P]
UTIL-11470	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 3 - Strip Interior Forms	2	11-Feb-26	12-Feb-26	5609 - SWD, Hol
UTIL-11480	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 3 - Strip Bulkheads & Prep CJs	1	13-Feb-26	13-Feb-26	5609 - SWD, Hol
Const | St 1 | LAWA Box Culvert South of Century - Line A Box Culvert - Section 4					
UTIL-11490	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 4 - Excavate & Shore	3	29-Dec-25	05-Jan-26	5609 - SWD, Hol
UTIL-11500	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 4 - Place & Grade Bedding	2	06-Jan-26	07-Jan-26	5609 - SWD, Hol
UTIL-11510	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 4 - FRP Invert	5	12-Jan-26	16-Jan-26	5609 - SWD, Hol
UTIL-11520	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 4 - Form Interior	2	03-Feb-26	04-Feb-26	5609 - SWD, Hol
UTIL-11530	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 4 - Place Wall & Soffit Rebar	2	05-Feb-26	06-Feb-26	5609 - SWD, Hol
UTIL-11540	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 4 - Form Exterior & Bulkheads	2	12-Feb-26	13-Feb-26	5609 - SWD, Hol
UTIL-11550	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 4 - Place Concrete	1	17-Feb-26	17-Feb-26	5609 - SWD, Hol
UTIL-11560	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 4 - Cure Concrete	7	18-Feb-26	24-Feb-26	5609 - TCD [P]
UTIL-11570	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 4 - Strip Interior Forms	2	25-Feb-26	26-Feb-26	5609 - SWD, Hol
UTIL-11580	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 4 - Strip Bulkheads & Prep CJs	1	27-Feb-26	27-Feb-26	5609 - SWD, Hol
Const | St 1 | LAWA Box Culvert South of Century - Line A Box Culvert - Section 5					
UTIL-11590	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 5 - Excavate & Shore	3	08-Jan-26	12-Jan-26	5609 - SWD, Hol
UTIL-11600	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 5 - Place & Grade Bedding	2	13-Jan-26	14-Jan-26	5609 - SWD, Hol
UTIL-11610	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 5 - FRP Invert	5	19-Jan-26	23-Jan-26	5609 - SWD, Hol
JTIL-11620	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 5 - Form Interior	2	17-Feb-26	18-Feb-26	5609 - SWD, Hol
JTIL-11630	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 5 - Place Wall & Soffit Rebar	2	19-Feb-26	20-Feb-26	5609 - SWD, Hol
JTIL-11640	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 5 - Form Exterior & Bulkheads	2	28-Feb-26	27-Feb-26	5609 - SWD, Hol
JTIL-11650	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 5 - Place Concrete	1	02-Mar-26	02-Mar-26	5609 - SWD, Hol
UTIL-11660	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 5 - Cure Concrete	7	03-Mar-26	09-Mar-26	5609 - TCD [P]
UTIL-11670	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 5 - Strip Interior Forms	2	10-Mar-26	11-Mar-26	5609 - SWD, Hol
UTIL-11680	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 5 - Strip Bulkheads & Prep CJs	1	12-Mar-26	12-Mar-26	5609 - SWD, Hol

Actual Work Critical Remaining Work Summary
 Remaining Work Milestones

Activity ID	Activity Name	maining	Start	Finish	Calendar	
Const | St 1 | LAWA Box Culvert South of Century - Line A Box Culvert - Section 6		48	15-Jan-26	24-Mar-26		
UTIL-11590	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 6 - Excavate & Shore	3	15-Jan-26	19-Jan-26	5609 - SWD, Hol	
UTIL-11700	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 6 - Place & Grade Bedding	2	20-Jan-26	21-Jan-26	5609 - SWD, Hol	
UTIL-11710	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 6 - FRP Invert	5	25-Jan-26	30-Jan-26	5609 - SWD, Hol	
UTIL-11720	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 6 - Form Interior	2	32-Mar-26	03-Mar-26	5609 - SWD, Hol	
UTIL-11730	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 6 - Place Wall & Soffit Rebar	2	04-Mar-26	05-Mar-26	5609 - SWD, Hol	
UTIL-11740	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 6 - Form Exterior & Bulkheads	2	11-Mar-26	12-Mar-26	5609 - SWD, Hol	
UTIL-11750	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 6 - Place Concrete	1	13-Mar-26	13-Mar-26	5609 - SWD, Hol	
UTIL-11760	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 6 - Cure Concrete	7	14-Mar-26	20-Mar-26	5609 - TCD [P]	
UTIL-11770	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 6 - Strip Interior Forms	2	23-Mar-26	24-Mar-26	5609 - SWD, Hol	
Const | St 1 | LAWA Box Culvert South of Century - Line A Box Culvert - Section 7		53	22-Jan-26	07-Apr-26		
UTIL-12130	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 7 - Excavate & Shore	3	22-Jan-26	26-Jan-26	5609 - SWD, Hol	
UTIL-12140	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 7 - Place & Grade Bedding	2	27-Jan-26	28-Jan-26	5609 - SWD, Hol	
UTIL-12150	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 7 - FRP Invert	5	29-Jan-26	04-Feb-26	5609 - SWD, Hol	
UTIL-12160	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 7 - Form Interior	2	13-Mar-26	16-Mar-26	5609 - SWD, Hol	
UTIL-12170	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 7 - Place Wall & Soffit Rebar	2	17-Mar-26	18-Mar-26	5609 - SWD, Hol	
UTIL-12180	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 7 - Form Exterior & Bulkheads	2	25-Mar-26	26-Mar-26	5609 - SWD, Hol	
UTIL-12190	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 7 - Place Concrete	1	27-Mar-26	27-Mar-26	5609 - SWD, Hol	
UTIL-12200	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 7 - Cure Concrete	7	28-Mar-26	03-Apr-26	5609 - TCD [P]	
UTIL-12210	Util Relo - LAWA Box Culvert - Line A - CIP Box - Section 7 - Strip Interior Forms	2	05-Apr-26	07-Apr-26	5609 - SWD, Hol	
Const | St 1 | LAWA Box Culvert South of Century - Line A Box Culvert - Finishes		41	17-Mar-26	12-May-26		
UTIL-11900	Util Relo - LAWA Box Culvert - Line A - CIP Box - Backfill Box Culvert Sections 1 thru 5	3	17-Mar-26	27-Mar-26	5609 - SWD, Hol	
UTIL-11980	Util Relo - LAWA Box Culvert - Line A - CIP Box - FRP Headwall Inc Footings	12	05-Apr-26	21-Apr-26	5609 - SWD, Hol	
UTIL-11990	Util Relo - LAWA Box Culvert - Line A - CIP Box - Backfill Box Culvert Section 7 Inc HW	3	08-Apr-26	20-Apr-26	5609 - SWD, Hol	
UTIL-12230	Util Relo - LAWA Box Culvert - Line A - CIP Box - Install Headwall Concrete Apron	5	22-Apr-26	28-Apr-26	5609 - SWD, Hol	
UTIL-12220	Util Relo - LAWA Box Culvert - Line A - CIP Box - Install Headwall Cable Railing	10	29-Apr-26	12-May-26	5609 - SWD, Hol	
Const | St 1 | LAWA Box Culvert South of Century - Line A1 Lateral		20	05-Apr-26	05-May-26		
UTIL-12240	Util Relo - LAWA Box Culvert - Line A1 - Lateral - Excavate & Install A1 Lateral RCP	6	05-Apr-26	17-Apr-26	5609 - SWD, Hol	
UTIL-12250	Util Relo - LAWA Box Culvert - Line A1 - Lateral - FRP A1 Lateral Junction Structures	3	20-Apr-26	22-Apr-26	5609 - SWD, Hol	
UTIL-12260	Util Relo - LAWA Box Culvert - Line A1 - Lateral - Cure Junction Structures	7	23-Apr-26	29-Apr-26	5609 - TCD [P]	
UTIL-12270	Util Relo - LAWA Box Culvert - Line A1 - Lateral - Backfill A1 Lateral & Restore Pavement	4	30-Apr-26	05-May-26	5609 - SWD, Hol	
Const | St 1 | Can Access | Seg J		148	17-Dec-25	24-Jul-26		
Const | St 1 | Can Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Wall J-2		37	17-Dec-25	17-Feb-26		
Const | St 1 | Can Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Wall J-2 | Footing A		37	17-Dec-25	17-Feb-26		
CON-15860	S1 - Wall J-2 - Fig A - Prep Work Pad for CIDH	2	17-Dec-25	18-Dec-25	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
CON-15810	S1 - Wall J-2 - Fig A - Install CIDH Shafts Upper Level	3	02-Jan-26	06-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
CON-15870	S1 - Wall J-2 - Fig A - Excavate for Lower Level Fig	4	07-Jan-26	12-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
CON-15880	S1 - Wall J-2 - Fig A - Install CIDH Shafts Lower Level	18	13-Jan-26	28-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
CON-15820	S1 - Wall J-2 - Fig A - Cure CIDH Shafts	7	28-Jan-26	04-Feb-26	5609 - TCD [P]	
CON-15920	S1 - Wall J-2 - Fig A - Sandblast CIDH	1	30-Jan-26	30-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
CON-15830	S1 - Wall J-2 - Fig A - Fine Grade for Fig	3	02-Feb-26	04-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
CON-15990	S1 - Wall J-2 - Fig A - FRP Footing	7	05-Feb-26	13-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
CON-15930	S1 - Wall J-2 - Fig B - Backfill to Top of Fig	1	17-Feb-26	17-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
Const | St 1 | Can Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Wall J-2 | Footing B		45	13-Jan-26	11-Mar-26		
CON-47031	S1 - Wall J-2 - Fig B - Prep Work Pad & Excavate	3	13-Jan-26	15-Jan-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
CON-47041	S1 - Wall J-2 - Fig B - Install CIDH Shafts	16	16-Jan-26	10-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
CON-47071	S1 - Wall J-2 - Fig B - Cure CIDH Shafts	7	11-Feb-26	17-Feb-26	5609 - TCD [P]	
CON-47081	S1 - Wall J-2 - Fig B - Sandblast CIDH	2	12-Feb-26	13-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
CON-15940	S1 - Wall J-2 - Fig B - Fine Grade for Fig	6	17-Feb-26	24-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
CON-15900	S1 - Wall J-2 - Fig B - FRP Footing	10	25-Feb-26	10-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
CON-47091	S1 - Wall J-2 - Fig B - Backfill to Top of Fig	1	11-Mar-26	11-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
Const | St 1 | Can Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Wall J-2 | Section 1		10	18-Feb-26	33-Mar-26		
CON-16090	S1 - Wall J-2 - FRP Panels Section 1	6	18-Feb-26	24-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
CON-16010	S1 - Wall J-2 - Cure Section 1	2	25-Feb-26	27-Feb-26	5609 - TCD [P]	
CON-16070	S1 - Wall J-2 - Strip Panels Section 1	2	25-Feb-26	27-Feb-26	5609 - SWD, Hol, TDay, Xmas, WC, Dy	
Const | St 1 | Can Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Wall J-2 | Section 2		11	03-Mar-26	16-Mar-26		

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	mainline	Start	Finish	Resources	Notes
CON-15980	S1 - Wall J2 - FRP Panels Section 2	6	02-Mar-26	09-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-16020	S1 - Wall J2 - Cure Section 2	7	10-Mar-26	16-Mar-26	5609 - TCD [P]	
CON-16080	S1 - Wall J2 - Strip Panels Section 2	2	11-Mar-26	12-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
Const [St 1] | Gen Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Wall J-2 | Section 3	11	12-Mar-26	25-Mar-26			
CON-15970	S1 - Wall J2 - FRP Panels Section 3	6	12-Mar-26	19-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-16030	S1 - Wall J2 - Cure Section 3	7	20-Mar-26	26-Mar-26	5609 - TCD [P]	
CON-16090	S1 - Wall J2 - Strip Panels Section 3	2	23-Mar-26	24-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
Const [St 1] | Gen Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Wall J-2 | Section 4	10	20-Mar-26	02-Apr-26			
CON-15980	S1 - Wall J2 - FRP Panels Section 4	5	20-Mar-26	26-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-16040	S1 - Wall J2 - Cure Section 4	7	27-Mar-26	02-Apr-26	5609 - TCD [P]	
CON-16100	S1 - Wall J2 - Strip Panels Section 4	2	30-Mar-26	31-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
Const [St 1] | Gen Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Wall J-2 | Section 5	10	27-Mar-26	09-Apr-26			
CON-15990	S1 - Wall J2 - FRP Panels Section 5	5	27-Mar-26	02-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-16050	S1 - Wall J2 - Cure Section 5	7	03-Apr-26	09-Apr-26	5609 - TCD [P]	
CON-16110	S1 - Wall J2 - Strip Panels Section 5	2	06-Apr-26	07-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
Const [St 1] | Gen Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Wall J-2 | Finishes	15	01-Jun-26	26-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy		
CON-16130	S1 - Wall J2 - Surface Finish Front Face / Install Arch Finishes	5	01-Jun-26	05-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-16220	S1 - Wall J2 - Restore WB Century	10	13-Jun-26	24-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
Const [St 1] | Gen Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Roadway Section	35	30-Apr-26	29-Jun-26			
CON-16140	S1 - Seg J - Place, Contour & Grade Wall BF & Ramp Embankment	15	06-Apr-26	04-May-26	5609 - SWD, Hol	
CON-16210	S1 - Seg J - Demo Existing South Wall to New Subgrade Level	5	28-Apr-26	04-May-26	5609 - SWD, Hol	
CON-16150	S1 - Seg J - Install Drainage Pipe & Appurtenances	5	05-May-26	11-May-26	5609 - SWD, Hol	
CON-16160	S1 - Seg J - Install Drainage Boxes & Appurtenances	10	08-May-26	21-May-26	5609 - SWD, Hol	
CON-16170	S1 - Seg J - FRP Traffic Barrier	5	22-May-26	28-May-26	5609 - SWD, Hol	
CON-16200	S1 - Seg J - Final Grade Subgrade	3	31-Jun-26	33-Jun-26	5609 - SWD, Hol	
CON-16180	S1 - Seg J - Place & Fine Grade Agg Base	6	24-Jun-26	1-Jul-26	5609 - SWD, Hol	
CON-16190	S1 - Seg J - Place AC Pavement & Dike	2	12-Jun-26	15-Jun-26	5609 - SWD, Hol	
CON-16230	S1 - Seg J - Install Necessary Roadway Finishes & Open to Traffic in Temp Configuration	10	16-Jun-26	26-Jun-26	5609 - SWD, Hol, TDay, Xmas	
Const [St 2] | Sep Access	777	13-Nov-26	15-Jan-27			
Const [St 2] | Sep Access | MOT	455	16-Mar-26	17-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy		
CON-47511	S2 - Establish MOT Measures & Shift Hook Ramp Traffic South	2	18-Mar-26	19-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-47841	S2 - Establish MOT Measures & Modify Intersection to Close 95th & Vickburg	8	20-Apr-26	28-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-53791	S2 - Establish MOT Measures 95th for D1 F&S work	2	13-Jul-26	14-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-16340	S2 - Establish MOT Measures Sepulveda to Construct Median Bents	2	17-Nov-26	18-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-16930	S2 - Establish MOT Measures Sepulveda Resat Median K-Rail / Push SB Traffic to Median	2	22-Jan-27	25-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-20500	S2 - Establish MOT Measures Sepulveda to Construct NB Sep Tie In to Seg C	2	26-Jan-27	27-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-32330	S2 - Establish MOT Measures on Jctway - Bridge D2 Construction	5	04-May-27	10-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-52131	S2 - Adjust MOT Measures Sepulveda SB for ADA Wall	2	14-Jul-27	15-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-52151	S2 - Adjust MOT Measures NB Sepulveda Open 4th Lane	2	04-Oct-27	05-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-52141	S2 - Remove MOT Measures SB Sepulveda - Temp A to Century	2	18-Mar-28	17-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
Const [St 2] | Sep Access | Demo	100	23-Nov-26	23-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy		
CON-17510	S2 - Demo Existing RW in Conflict with Wall A-4	4	28-Mar-28	31-Mar-28	5609 - SWD, Hol	
CON-53811	S2 - Remove Street Lighting & Traffic Signals 95th Sep to Vicks	5	27-Apr-26	01-May-26	5609 - SWD, Hol	
CON-52491	S2 - Demo Pavement 95th St Sep to Vicks	5	01-May-26	08-May-26	5609 - SWD, Hol	
CON-32670	S2 - Demo Median Barrier and Remove Pavements for CDH - Sep Median	3	19-Nov-26	23-Nov-26	5609 - SWD, Hol	
Const [St 2] | Sep Access | Sepulveda Blvd	430	20-Sep-26	15-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy		
Const [St 2] | Sep Access | Sepulveda Blvd | Median Barrier	220	19-Nov-26	25-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy		
Const [St 2] | Sep Access | Sepulveda Blvd | Median Barrier | Sta 1434+47 to Sta 1443+00	150	22-Jan-27	25-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy		
CON-31780	S2 - Sep - Med Bar 1434+47 to 1443+00 - Demo Pmtl & Remaining Barrier	5	22-Jan-27	04-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-31790	S2 - Sep - Med Bar 1434+47 to 1443+00 - Install Street Lighting & OH Sign Foundations	5	18-Feb-27	24-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-31800	S2 - Sep - Med Bar 1434+47 to 1443+00 - Perform Rdwy Ex & FG Subgrade	10	25-Feb-27	03-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-31820	S2 - Sep - Med Bar 1434+47 to 1443+00 - Prop Subgrade & Place Agg Base	14	11-Mar-27	30-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-31830	S2 - Sep - Med Bar 1434+47 to 1443+00 - Place ACP Base	3	31-Mar-27	02-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-52161	S2 - Sep - Med Bar 1434+47 to 1443+00 - FRP Barrier Sta 1434+47 to Sta 1437+00	6	06-Apr-27	09-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	
CON-31810	S2 - Sep - Med Bar 1434+47 to 1443+00 - FRP Barrier Sta 1437+00 to Sta 1443+00 - NB	5	27-Sep-27	01-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Starting	Start	Finish	Calendar	
CON-52171	S2 - Sep - Med Bar 1434+47 to 1443+00 - FRP Barrier Sta 1437+0 to Sta 1443+00 - SB	5	04-Oct-27	08-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52181	S2 - Sep - Mod Bar 1434+47 to 1443+00 - Backfill Gap Between NB & SB Barrier	8	11-Oct-27	20-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52191	S2 - Sep - Mod Bar 1434+47 to 1443+00 - Place Conc Infill Bwn Barrier Faces	3	21-Oct-27	25-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | S12 | Sep Access | Sepulveda Blvd | Median Barrier | Sta 1443+00 to Sta 1447+00		15	18-Jun-27	13-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-31840	S2 - Sep - Med Bar 1443+00 to 1447+00 - Demo Pymnt & Remaining Barrier	3	15-Jun-27	18-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-31850	S2 - Sep - Med Bar 1443+00 to 1447+00 - Perform Rdwy Ex & FG Subgrade	3	21-Jun-27	23-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-31870	S2 - Sep - Mod Bar 1443+00 to 1447+00 - Place Agg Base	4	24-Jun-27	26-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-31880	S2 - Sep - Med Bar 1443+00 to 1447+00 - Place ACP Base	1	30-Jun-27	30-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-31860	S2 - Sep - Med Bar 1443+00 to 1447+00 - FRP Barrier	9	01-Jul-27	13-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | S12 | Sep Access | Sepulveda Blvd | Median Barrier | Sta 1447+00 to Sta 1452+29		23	15-Nov-26		5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-53711	S2 - Sep - Med Bar 1447+00 to 1452+29 - Demo Pymnt & Remaining Barrier	5	15-Nov-26	03-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-53721	S2 - Sep - Med Bar 1447+00 to 1452+29 - Perform Rdwy Ex & FG Subgrade	3	07-Dec-26	09-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-53741	S2 - Sep - Med Bar 1447+00 to 1452+29 - Place Agg Base	5	10-Dec-26	17-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-53751	S2 - Sep - Med Bar 1447+00 to 1452+29 - Place ACP Base	1	04-Jan-27	04-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-53731	S2 - Sep - Med Bar 1447+00 to 1452+29 - FRP Barrier	9	05-Jan-27	15-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | S12 | Sep Access | Sepulveda Blvd | Median Barrier | Median @ Little Century		16	Dec-26	13-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52201	S2 - Sep - Med Bar @ Little Century - Remove Pymnt & Excavate	3	14-Dec-26	16-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52211	S2 - Sep - Med Bar @ Little Century - Install Traffic Signal Foundation	2	17-Dec-26	04-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52221	S2 - Sep - Med Bar @ Little Century - Prep Subgrade & Place Agg Base	3	05-Jan-27	07-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52231	S2 - Sep - Med Bar @ Little Century - Place ACP Base	1	08-Jan-27	08-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52241	S2 - Sep - Med Bar @ Little Century - FRP Traffic Barrier	4	11-Jan-27	14-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52251	S2 - Sep - Med Bar @ Little Century - Install Penn Attenuator	3	15-Jan-27	19-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | S12 | Sep Access | Sepulveda Blvd | SB Sta 1434+63 to Sta 1438+15 Along Wall D-1		11	15-Jul-27	29-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52261	S2 - Sep - SB Along Wall D-1 - Remove Pymnt & Prep Subgrade	4	15-Jul-27	20-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52271	S2 - Sep - SB Along Wall D-1 - Place Agg Base	2	21-Jul-27	23-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52281	S2 - Sep - SB Along Wall D-1 - Place ACP Base	1	23-Jul-27	23-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52291	S2 - Sep - SB Along Wall D-1 - FRP Traffic Barrier against Wall D-2	4	28-Jul-27	29-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | S12 | Sep Access | Sepulveda Blvd | SB Sta 1438+15 to Sta 1441+86 - D1-A1 to A-A1		46	16-Jul-27	20-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52301	S2 - Sep - SB D1-A1 to A-A1 - Install CIDH for Traffic Barrier/ADA Wall	6	16-Jul-27	23-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52311	S2 - Sep - SB D1-A1 to A-A1 - Excavate & Grade for Traffic Barrier/ADA Wall Foundation	6	26-Jul-27	02-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52321	S2 - Sep - SB D1-A1 to A-A1 - FRP Traffic Barrier/ADA Foundation A-A1 to D1-A1	6	03-Aug-27	10-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52331	S2 - Sep - SB D1-A1 to A-A1 - Remove Remaining Pavement & Perform Rdwy Ex	3	11-Aug-27	13-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52421	S2 - Sep - SB D1-A1 to A-A1 - Fine Grade Subgrade & Place Agg Base	4	16-Aug-27	19-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52431	S2 - Sep - SB D1-A1 to A-A1 - Place ACP Base	1	20-Aug-27	20-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52441	S2 - Sep - SB D1-A1 to A-A1 - Install CMU ADA Wall	18	23-Aug-27	13-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52451	S2 - Sep - SB D1-A1 to A-A1 - Install Barbed Wire @ Top of ADA Wall	8	14-Sep-27	20-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | S12 | Sep Access | Sepulveda Blvd | SB Sta 1441+86 to Sta 1450+12 - A Gore to A-A1		25	25-Sep-26	01-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-31890	S2 - Sep - A Gore to A-A1 - Sawcut & Demo Ex Pymnt & Temp Ramp	4	25-Jan-28	02-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-31850	S2 - Sep - A Gore to A-A1 - Install Street Lighting Foundations	5	03-Feb-28	04-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52341	S2 - Sep - A Gore to A-A1 - Excavate & Grade Drainage Swale	9	03-Feb-28	14-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-31860	S2 - Sep - A Gore to A-A1 - Install Storm Drainage & Appurtenances	3	15-Feb-28	17-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-31870	S2 - Sep - A Gore to A-A1 - Perform Rdwy Ex & Fine Grade Subgrade	1	16-Feb-28	24-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-31890	S2 - Sep - A Gore to A-A1 - Place & Fine Grade Agg Base	3	25-Feb-28	29-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-32060	S2 - Sep - A Gore to A-A1 - Place ACP	1	01-Mar-28	01-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | S12 | Sep Access | Sepulveda Blvd | Finishes		430	20-Apr-28	15-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52461	S2 - Sep - Finishes - Replace Wayfinding Sign Panels Sta 1451+75	1	20-Apr-28	23-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52381	S2 - Sep - Finishes - Install CHSS Photo @ Hyatt	3	25-Feb-27	01-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52351	S2 - Sep - Finishes - Install CHSS Gantry & Wayfinding Signage	4	12-Apr-27	15-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52471	S2 - Sep - Finishes - Modify Wayfinding Sign Panels Sta 1416+00 to Sig 4	4	29-Jun-27	02-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52401	S2 - Sep - Finishes - Install Street Lighting Median	8	26-Oct-27	01-Nov-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52411	S2 - Sep - Finishes - Install Street Lighting SB	4	02-Mar-28	07-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-52461	S2 - Sep - Finishes - Install Guardrail System	10	02-Mar-28	15-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | S12 | Sep Access | Seg A		484	13-Nov-25	04-Oct-27		
Const | S12 | Sep Access | Seg A | At Grade Sta 15+55 to Sta 16+70		23	09-Jul-27	10-Aug-27	5609 - SWD, Hol	
CON-32240	S2 - A 15+55 to 16+70 - Perform Roadway Excavation	2	09-Jul-27	12-Jul-27	5609 - SWD, Hol	
CON-32250	S2 - A 15+55 to 16+70 - Grade for Pathwork & Barriers	3	13-Jul-27	15-Jul-27	5609 - SWD, Hol	
CON-32260	S2 - A 15+55 to 16+70 - Place Pathwork & Barriers	4	16-Jul-27	21-Jul-27	5609 - SWD, Hol	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar	
CON-47341	S2 - A 15+55 to 16+70 - Install Street Lighting Trunks & Conduit		3/22-Jul-27	26-Jul-27	5609 - SWD, Hol	S2 - A 15+55 to 16+70 - Install Street Lighting Trunks & Conduit
CON-32270	S2 - A 15+55 to 16+70 - Prep Subgrade & Place Agg Base		5/27-Jul-27	03-Aug-27	5609 - SWD, Hol	S2 - A 15+55 to 16+70 - Prep Subgrade & Place Agg Base
CON-32280	S2 - A 15+55 to 16+70 - Place Pavement, Striping, Lighting & Signage		5/04-Aug-27	10-Aug-27	5609 - SWD, Hol	S2 - A 15+55 to 16+70 - Place Pavement, Striping, Lighting & Signage
Const | St 2 | Sep Access | Seg A | Retaind Fill Sta 16+70 to Sta 20+50						
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-1						
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-1 | CIDH						
CON-10000	S2 - Wall A-1 - Prep Work Pad for CIDH / Remove Ex Pmnts		4/01-Apr-27	06-Apr-27	5609 - SWD, Hol	S2 - Wall A-1 - Prep Work Pad for CIDH / Remove Ex Pmnts
CON-10010	S2 - Wall A-1 - Install CIDH Shafts		31/23-Apr-27	04-Jun-27	5609 - SWD, Hol	S2 - Wall A-1 - Install CIDH Shafts
CON-10020	S2 - Wall A-1 - Final Cure CIDH Shafts		7/05-Jun-27	1-Jun-27	5609 - TCD [P]	S2 - Wall A-1 - Final Cure CIDH Shafts
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-1 | Section 1						
CON-10030	S2 - Wall A-1 - Excavate for Footing Section 1		1/14-May-27	14-May-27	5609 - SWD, Hol	S2 - Wall A-1 - Excavate for Footing Section 1
CON-10070	S2 - Wall A-1 - FRP Footing Section 1		3/17-May-27	19-May-27	5609 - SWD, Hol	S2 - Wall A-1 - FRP Footing Section 1
CON-10110	S2 - Wall A-1 - FRP Panels Section 1		3/20-May-27	27-May-27	5609 - SWD, Hol	S2 - Wall A-1 - FRP Panels Section 1
CON-10150	S2 - Wall A-1 - Final Cure Section 1		1/28-May-27	28-May-27	5609 - TCD [P]	S2 - Wall A-1 - Final Cure Section 1
CON-10190	S2 - Wall A-1 - Strip Panels Section 1		2/01-Jun-27	02-Jun-27	5609 - SWD, Hol	S2 - Wall A-1 - Strip Panels Section 1
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-1 | Section 2						
CON-10040	S2 - Wall A-1 - Excavate for Footing Section 2		1/17-May-27	17-May-27	5609 - SWD, Hol	S2 - Wall A-1 - Excavate for Footing Section 2
CON-10080	S2 - Wall A-1 - FRP Footing Section 2		3/20-May-27	24-May-27	5609 - SWD, Hol	S2 - Wall A-1 - FRP Footing Section 2
CON-10120	S2 - Wall A-1 - FRP Panels Section 2		6/25-May-27	02-Jun-27	5609 - SWD, Hol	S2 - Wall A-1 - FRP Panels Section 2
CON-10160	S2 - Wall A-1 - Final Cure Section 2		1/03-Jun-27	03-Jun-27	5609 - TCD [P]	S2 - Wall A-1 - Final Cure Section 2
CON-10200	S2 - Wall A-1 - Strip Panels Section 2		2/04-Jun-27	07-Jun-27	5609 - SWD, Hol	S2 - Wall A-1 - Strip Panels Section 2
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-1 | Section 3						
CON-10050	S2 - Wall A-1 - Excavate for Footing Section 3		1/18-May-27	18-May-27	5609 - SWD, Hol	S2 - Wall A-1 - Excavate for Footing Section 3
CON-10090	S2 - Wall A-1 - FRP Footing Section 3		3/25-May-27	27-May-27	5609 - SWD, Hol	S2 - Wall A-1 - FRP Footing Section 3
CON-10130	S2 - Wall A-1 - FRP Panels Section 3		6/28-May-27	07-Jun-27	5609 - SWD, Hol	S2 - Wall A-1 - FRP Panels Section 3
CON-10170	S2 - Wall A-1 - Final Cure Section 3		1/08-Jun-27	08-Jun-27	5609 - TCD [P]	S2 - Wall A-1 - Final Cure Section 3
CON-10210	S2 - Wall A-1 - Strip Panels Section 3		2/09-Jun-27	10-Jun-27	5609 - SWD, Hol	S2 - Wall A-1 - Strip Panels Section 3
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-1 | Section 4						
CON-10060	S2 - Wall A-1 - Excavate for Footing Section 4		1/14-Jun-27	14-Jun-27	5609 - SWD, Hol	S2 - Wall A-1 - Excavate for Footing Section 4
CON-10100	S2 - Wall A-1 - FRP Footing Section 4		3/15-Jun-27	17-Jun-27	5609 - SWD, Hol	S2 - Wall A-1 - FRP Footing Section 4
CON-10140	S2 - Wall A-1 - FRP Panels Section 4		6/18-Jun-27	25-Jun-27	5609 - SWD, Hol	S2 - Wall A-1 - FRP Panels Section 4
CON-10180	S2 - Wall A-1 - Final Cure Section 4		1/26-Jun-27	26-Jun-27	5609 - TCD [P]	S2 - Wall A-1 - Final Cure Section 4
CON-10220	S2 - Wall A-1 - Strip Panels Section 4		2/28-Jun-27	29-Jun-27	5609 - SWD, Hol	S2 - Wall A-1 - Strip Panels Section 4
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-1 | Finishes						
CON-50921	S2 - Wall A-1 - Final Water Cure		7/30-Jun-27	30-Jun-27	5609 - TCD [P]	S2 - Wall A-1 - Final Water Cure
CON-10230	S2 - Wall A-1 - Surface Finish Front Face / Install Arch Finishes		8/07-Jul-27	13-Jul-27	5609 - SWD, Hol	S2 - Wall A-1 - Surface Finish Front Face / Install Arch Finishes
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Footings						
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Fig 2B Sect A						
CON-10240	S2 - Wall A-2A&B - Fig 2B - Prep Work Pad for CIDH / Remove Ex Pmnts		4/15-Mar-27	18-Mar-27	5609 - SWD, Hol	S2 - Wall A-2A&B - Fig 2B - Prep Work Pad for CIDH / Remove Ex Pmnts
CON-10270	S2 - Wall A-2A&B - Fig 2B-A - Excavate for Footing		1/19-Mar-27	19-Mar-27	5609 - SWD, Hol	S2 - Wall A-2A&B - Fig 2B-A - Excavate for Footing
CON-50871	S2 - Wall A-2A&B - Fig 2B-A - Install Isolation Casings		1/22-Mar-27	22-Mar-27	5609 - SWD, Hol	S2 - Wall A-2A&B - Fig 2B-A - Install Isolation Casings
CON-10260	S2 - Wall A-2A&B - Fig 2B-A - Install CIDH Shafts		1/23-Mar-27	16-Apr-27	5609 - SWD, Hol	S2 - Wall A-2A&B - Fig 2B-A - Install CIDH Shafts
CON-10260	S2 - Wall A-2A&B - Fig 2B-A - Final Cure CIDH Shafts		7/17-Apr-27	23-Apr-27	5609 - TCD [P]	S2 - Wall A-2A&B - Fig 2B-A - Final Cure CIDH Shafts
CON-10330	S2 - Wall A-2A&B - Fig 2B-A - FRPS Footing		4/28-Apr-27	29-Apr-27	5609 - SWD, Hol	S2 - Wall A-2A&B - Fig 2B-A - FRPS Footing
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Fig 2B Sect B						
CON-10290	S2 - Wall A-2A&B - Fig 2B-B - Excavate for Footing Inc Over Ex & Grd Beams		5/22-Mar-27	26-Mar-27	5609 - SWD, Hol	S2 - Wall A-2A&B - Fig 2B-B - Excavate for Footing Inc Over Ex & Grd Beams
CON-50811	S2 - Wall A-2A&B - Fig 2B-B - Place Soil Correction Mat		2/23-Mar-27	01-Apr-27	5609 - SWD, Hol	S2 - Wall A-2A&B - Fig 2B-B - Place Soil Correction Mat
CON-50881	S2 - Wall A-2A&B - Fig 2B-B - FRP Grade Beams		8/02-Apr-27	13-Apr-27	5609 - SWD, Hol	S2 - Wall A-2A&B - Fig 2B-B - FRP Grade Beams
CON-10340	S2 - Wall A-2A&B - Fig 2B-B - FRPS Footing		7/30-Apr-27	10-May-27	5609 - SWD, Hol	S2 - Wall A-2A&B - Fig 2B-B - FRPS Footing
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Fig 2A Sect C						
CON-10290	S2 - Wall A-2A&B - Fig 2A-C - Excavate for Footing Inc Over Ex		3/23-Mar-27	31-Mar-27	5609 - SWD, Hol	S2 - Wall A-2A&B - Fig 2A-C - Excavate for Footing Inc Over Ex
CON-50821	S2 - Wall A-2A&B - Fig 2A-C - Place Soil Correction Mat		2/01-Apr-27	02-Apr-27	5609 - SWD, Hol	S2 - Wall A-2A&B - Fig 2A-C - Place Soil Correction Mat
CON-10380	S2 - Wall A-2A&B - Fig 2A-C - FRPS Footing		6/11-May-27	18-May-27	5609 - SWD, Hol	S2 - Wall A-2A&B - Fig 2A-C - FRPS Footing
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Fig 2A Sect D						
CON-10390	S2 - Wall A-2A&B - Fig 2A-D - Excavate for Footing		2/01-Apr-27	02-Apr-27	5609 - SWD, Hol	S2 - Wall A-2A&B - Fig 2A-D - Excavate for Footing

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-50891	S2 - Wall A-2A&B - Fig 2A-D - Install Isolation Casings	5	05-Apr-27	09-Apr-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Fig 2A-D - Install Isolation Casings
CON-50951	S2 - Wall A-2A&B - Fig 2A-D - Install CIDH Shafts	3	19-Apr-27	21-Apr-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Fig 2A-D - Install CIDH Shafts
CON-50861	S2 - Wall A-2A&B - Fig 2A-D - Final Cure CIDH Shafts	7	22-Apr-27	28-Apr-27	5609 - TCD [P]	I S2 - Wall A-2A&B - Fig 2A-D - Final Cure CIDH Shafts
CON-10360	S2 - Wall A-2A&B - Fig 2A-D - FRPS Footing	7	19-May-27	27-May-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Fig 2A-D - FRPS Footing
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Fig 2A Sect 5	45	05-Apr-27	07-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Fig 2A-E - Excavate for Footing for Over Ex	
CON-10310	S2 - Wall A-2A&B - Fig 2A-E - Excavate for Footing for Over Ex	3	05-Apr-27	07-Apr-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Fig 2A-E - Excavate for Footing for Over Ex
CON-50831	S2 - Wall A-2A&B - Fig 2A-E - Place Sol Corrector Mtl	2	08-Apr-27	09-Apr-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Fig 2A-E - Place Sol Corrector Mtl
CON-10370	S2 - Wall A-2A&B - Fig 2A-E - FRPS Footing	8	26-May-27	07-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Fig 2A-E - FRPS Footing
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Panels 2B-1	39	22-Apr-27	24-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Fig 2A-E - Excavate for Footing for Over Ex	
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Panels 2B-1	3	30-Apr-27	14-May-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Fig 2A-E - Place Sol Corrector Mtl	
CON-10390	S2 - Wall A-2A&B - Pnl 2B-1 - FRP Panels	6	30-Apr-27	07-May-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2B-1 - FRP Panels
CON-10450	S2 - Wall A-2A&B - Pnl 2B-1 - Cure	1	08-May-27	08-May-27	5609 - TCD [P]	I S2 - Wall A-2A&B - Pnl 2B-1 - Cure
CON-10510	S2 - Wall A-2A&B - Pnl 2B-1 - Strip Panels	2	10-May-27	11-May-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2B-1 - Strip Panels
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Panels 2B-2	7	10-May-27	18-May-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2B-2 - FRP Panels	
CON-10400	S2 - Wall A-2A&B - Pnl 2B-2 - FRP Panels	5	10-May-27	14-May-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2B-2 - FRP Panels
CON-10480	S2 - Wall A-2A&B - Pnl 2B-2 - Cure	1	15-May-27	15-May-27	5609 - TCD [P]	I S2 - Wall A-2A&B - Pnl 2B-2 - Cure
CON-10520	S2 - Wall A-2A&B - Pnl 2B-2 - Strip Panels	2	17-May-27	18-May-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2B-2 - Strip Panels
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Panels 2B-3	6	17-May-27	27-May-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2B-3 - FRP Panels	
CON-10410	S2 - Wall A-2A&B - Pnl 2B-3 - FRP Panels	8	17-May-27	24-May-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2B-3 - FRP Panels
CON-10470	S2 - Wall A-2A&B - Pnl 2B-3 - Cure	1	25-May-27	25-May-27	5609 - TCD [P]	I S2 - Wall A-2A&B - Pnl 2B-3 - Cure
CON-10530	S2 - Wall A-2A&B - Pnl 2B-3 - Strip Panels	2	26-May-27	27-May-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2B-3 - Strip Panels
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Panels 2B-4	6	25-May-27	04-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2B-4 - FRP Panels	
CON-10420	S2 - Wall A-2A&B - Pnl 2B-4 - FRP Panels	5	25-May-27	01-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2B-4 - FRP Panels
CON-10480	S2 - Wall A-2A&B - Pnl 2B-4 - Cure	1	02-Jun-27	02-Jun-27	5609 - TCD [P]	I S2 - Wall A-2A&B - Pnl 2B-4 - Cure
CON-10540	S2 - Wall A-2A&B - Pnl 2B-4 - Strip Panels	2	03-Jun-27	04-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2B-4 - Strip Panels
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Panels 2A-5	6	02-Jun-27	11-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2A-5 - FRP Panels	
CON-10430	S2 - Wall A-2A&B - Pnl 2A-5 - FRP Panels	5	02-Jun-27	09-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2A-5 - FRP Panels
CON-10490	S2 - Wall A-2A&B - Pnl 2A-5 - Cure	1	09-Jun-27	09-Jun-27	5609 - TCD [P]	I S2 - Wall A-2A&B - Pnl 2A-5 - Cure
CON-10550	S2 - Wall A-2A&B - Pnl 2A-5 - Strip Panels	2	10-Jun-27	11-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2A-5 - Strip Panels
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Panels 2A-6	7	09-Jun-27	17-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2A-6 - FRP Panels	
CON-50721	S2 - Wall A-2A&B - Pnl 2A-6 - FRP Panels	4	09-Jun-27	14-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2A-6 - FRP Panels
CON-50731	S2 - Wall A-2A&B - Pnl 2A-6 - Cure	1	15-Jun-27	15-Jun-27	5609 - TCD [P]	I S2 - Wall A-2A&B - Pnl 2A-6 - Cure
CON-50741	S2 - Wall A-2A&B - Pnl 2A-6 - Strip Panels	2	16-Jun-27	17-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2A-6 - Strip Panels
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Panels 2A-7	6	15-Jun-27	24-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2A-7 - FRP Panels	
CON-50771	S2 - Wall A-2A&B - Pnl 2A-7 - FRP Panels	5	15-Jun-27	21-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2A-7 - FRP Panels
CON-50781	S2 - Wall A-2A&B - Pnl 2A-7 - Cure	1	22-Jun-27	22-Jun-27	5609 - TCD [P]	I S2 - Wall A-2A&B - Pnl 2A-7 - Cure
CON-50791	S2 - Wall A-2A&B - Pnl 2A-7 - Strip Panels	2	23-Jun-27	24-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2A-7 - Strip Panels
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Finishes	10	23-Jun-27	28-Jun-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Pnl 2A-7 - Strip Panels	
CON-50901	S2 - Wall A-2A&B - Final Water Cure	7	25-Jun-27	31-Jul-27	5609 - TCD [P]	I S2 - Wall A-2A&B - Final Water Cure
CON-50911	S2 - Wall A-2A&B - Surface Finish Front Face / Install Arch Finishes	5	12-Jul-27	30-Jul-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Surface Finish Front Face / Install Arch Finishes
Const | St 2 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Rdwy Section	36	23-Jul-27	23-Sep-27	5609 - SWD, Hol	I S2 - Wall A-2A&B - Surface Finish Front Face / Install Arch Finishes	
CON-47971	S2 - A 16+70 to 20+50 - Install Retaining Barrier	4	12-Jul-27	18-Jul-27	5609 - SWD, Hol	I S2 - A 16+70 to 20+50 - Install Retaining Barrier
CON-10630	S2 - A 16+70 to 20+50 - Place Contour & Grade Wall BF & Ramp Embankment	19	19-Jul-27	24-Aug-27	5609 - SWD, Hol	I S2 - A 16+70 to 20+50 - Place Contour & Grade Wall BF & Ramp Embankment
CON-10640	S2 - A 16+70 to 20+50 - Install Drainage Pipe & Appurtenances	5	15-Aug-27	11-Aug-27	5609 - SWD, Hol	I S2 - A 16+70 to 20+50 - Install Drainage Pipe & Appurtenances
CON-10690	S2 - A 16+70 to 20+50 - Fine Grade Subgrade	3	12-Aug-27	16-Aug-27	5609 - SWD, Hol	I S2 - A 16+70 to 20+50 - Fine Grade Subgrade
CON-10680	S2 - A 16+70 to 20+50 - FRP Traffic Barrier	5	17-Aug-27	23-Aug-27	5609 - SWD, Hol	I S2 - A 16+70 to 20+50 - FRP Traffic Barrier
CON-50671	S2 - A 16+70 to 20+50 - Install AOA CMU Wall	15	24-Aug-27	14-Sep-27	5609 - SWD, Hol	I S2 - A 16+70 to 20+50 - Install AOA CMU Wall
CON-10670	S2 - A 16+70 to 20+50 - Place & Fine Grade Agg Base	6	15-Sep-27	22-Sep-27	5609 - SWD, Hol	I S2 - A 16+70 to 20+50 - Place & Fine Grade Agg Base
CON-10680	S2 - A 16+70 to 20+50 - Place HMA Pavement	1	23-Sep-27	23-Sep-27	5609 - SWD, Hol	I S2 - A 16+70 to 20+50 - Place HMA Pavement
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96	464	13-Nov-25	34-Dec-27	5609 - SWD, Hol	I S2 - A 16+70 to 20+50 - Place HMA Pavement	
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | F&A-F	42	13-Nov-25	16-Aug-27	5609 - SWD, Hol	I S2 - A 16+70 to 20+50 - Place HMA Pavement	
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | F&A-F | F&S	13	13-Nov-25	23-Mar-27	5609 - SWD, Hol	I S2 - A 16+70 to 20+50 - Place HMA Pavement	
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | F&A-F | F&S | A-A1	25	25-Jan-27	23-Mar-27	5609 - SWD, Hol	I S2 - A 16+70 to 20+50 - Place HMA Pavement	
CON-16940	S2 - A-F1 - A-A1 - Prep Work Pad For CIDH	1	28-Jan-27	28-Jan-27	5609 - SWD, Hol	I S2 - A-F1 - A-A1 - Prep Work Pad For CIDH
CON-16970	S2 - A-F1 - A-A1 - Install CIDH Shafts	5	29-Jan-27	05-Feb-27	5609 - SWD, Hol	I S2 - A-F1 - A-A1 - Install CIDH Shafts
CON-17040	S2 - A-F1 - A-A1 - Cure CIDH	1	05-Feb-27	12-Feb-27	5609 - TCD [P]	I S2 - A-F1 - A-A1 - Cure CIDH

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-17030	S2-A-F1-AA1-Excavate Footing		4 08-Feb-27	11-Feb-27	5609 - SWD, Hol	1 S2-A-F1-AA1-Excavate Footing
CON-17090	S2-A-F1-AA1-Prop CIDH For Footing Construction		3 12-Feb-27	17-Feb-27	5609 - SWD, Hol	1 S2-A-F1-AA1-Prop CIDH For Footing Construction
CON-17140	S2-A-F1-AA1-Form Footing/Dowel Template		3 18-Feb-27	22-Feb-27	5609 - SWD, Hol	1 S2-A-F1-AA1-Form Footing/Dowel Template
CON-17240	S2-A-F1-AA1-Place Rebar		3 23-Feb-27	25-Feb-27	5609 - SWD, Hol	1 S2-A-F1-AA1-Place Rebar
CON-17380	S2-A-F1-AA1-Place Footing Concrete		1 29-Feb-27	26-Feb-27	5609 - SWD, Hol	1 S2-A-F1-AA1-Place Footing Concrete
CON-17400	S2-A-F1-AA1-Cure Footing Concrete		7 27-Feb-27	05-Mar-27	5609 - TCD [P]	1 S2-A-F1-AA1-Cure Footing Concrete
CON-17410	S2-A-F1-AA1-Strip Footing Forms/Dowel Template		1 01-Mar-27	01-Mar-27	5609 - SWD, Hol	1 S2-A-F1-AA1-Strip Footing Forms/Dowel Template
CON-17520	S2-A-F1-AA1-Blast Prep For Stems & Wings		1 02-Mar-27	02-Mar-27	5609 - SWD, Hol	1 S2-A-F1-AA1-Blast Prep For Stems & Wings
CON-17550	S2-A-F1-AA1-Form 1S Stems/Wings/Backwall		3 03-Mar-27	05-Mar-27	5609 - SWD, Hol	1 S2-A-F1-AA1-Form 1S Stems/Wings/Backwall
CON-17650	S2-A-F1-AA1-Place Stem & Wing Rebar		3 08-Mar-27	10-Mar-27	5609 - SWD, Hol	1 S2-A-F1-AA1-Place Stem & Wing Rebar
CON-17750	S2-A-F1-AA1-Form 2S Stems & Wings		2 11-Mar-27	12-Mar-27	5609 - SWD, Hol	1 S2-A-F1-AA1-Form 2S Stems & Wings
CON-17880	S2-A-F1-AA1-Place Stem & Wing Concrete		1 15-Mar-27	15-Mar-27	5609 - SWD, Hol	1 S2-A-F1-AA1-Place Stem & Wing Concrete
CON-17950	S2-A-F1-AA1-Cure Stem & Wing Concrete		7 19-Mar-27	22-Mar-27	5609 - TCD [P]	1 S2-A-F1-AA1-Cure Stem & Wing Concrete
CON-17960	S2-A-F1-AA1-Strip Stem & Wing Forms / Rough Surface Finish		2 18-Mar-27	17-Mar-27	5609 - SWD, Hol	1 S2-A-F1-AA1-Strip Stem & Wing Forms / Rough Surface Finish
CON-31380	S2-A-F1-AA1-Backfill		1 18-Mar-27	18-Mar-27	5609 - SWD, Hol	1 S2-A-F1-AA1-Backfill
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | F & S | Bent A-B2						14-Feb-27, Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1
CON-16960	S2-A-F1-A-B2-Prep Work Pad For Type 2 Shaft		1 26-Jan-27	26-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B2-Prep Work Pad For Type 2 Shaft
CON-16990	S2-A-F1-A-B2-Install CIDH Shafts		4 27-Jan-27	01-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B2-Install CIDH Shafts
CON-17080	S2-A-F1-A-B2-Cure Shaft		7 02-Feb-27	06-Feb-27	5609 - TCD [P]	1 S2-A-F1-A-B2-Cure Shaft
CON-17070	S2-A-F1-A-B2-Prep Transition Zone/Set Column Cage & Guy		4 02-Feb-27	05-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B2-Prep Transition Zone/Set Column Cage & Guy
CON-17180	S2-A-F1-A-B2-Place Transition Zone Concrete		1 29-Feb-27	29-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B2-Place Transition Zone Concrete
CON-17190	S2-A-F1-A-B2-Cure Transition Zone Concrete		7 10-Feb-27	16-Feb-27	5609 - TCD [P]	1 S2-A-F1-A-B2-Cure Transition Zone Concrete
CON-17200	S2-A-F1-A-B2-Form Column		3 10-Feb-27	12-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B2-Form Column
CON-17250	S2-A-F1-A-B2-Connect Thermal Control System		1 16-Feb-27	16-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B2-Connect Thermal Control System
CON-17370	S2-A-F1-A-B2-Place Column Concrete		1 17-Feb-27	17-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B2-Place Column Concrete
CON-17430	S2-A-F1-A-B2-Cure Column Concrete		7 18-Feb-27	24-Feb-27	5609 - TCD [P]	1 S2-A-F1-A-B2-Cure Column Concrete
CON-17440	S2-A-F1-A-B2-Strip Column Forms 1 Day Minimum Removal		1 18-Feb-27	18-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B2-Strip Column Forms 1 Day Minimum Removal
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | F & S | Bent A-B3						14-Mar-27, Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1
CON-16470	S2-A-F1-A-B3-Install CIDH Shafts		4 02-Dec-26	06-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B3-Install CIDH Shafts
CON-16560	S2-A-F1-A-B3-Cure Shaft		7 09-Dec-26	15-Dec-26	5609 - TCD [P]	1 S2-A-F1-A-B3-Cure Shaft
CON-16590	S2-A-F1-A-B3-Prep Transition Zone/Set Column Cage & Guy		4 09-Dec-26	15-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B3-Prep Transition Zone/Set Column Cage & Guy
CON-16730	S2-A-F1-A-B3-Place Transition Zone Concrete		1 16-Dec-26	16-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B3-Place Transition Zone Concrete
CON-16770	S2-A-F1-A-B3-Cure Transition Zone Concrete		7 17-Dec-26	23-Dec-26	5609 - TCD [P]	1 S2-A-F1-A-B3-Cure Transition Zone Concrete
CON-16780	S2-A-F1-A-B3-Form Column		3 17-Dec-26	25-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B3-Form Column
CON-16810	S2-A-F1-A-B3-Connect Thermal Control System		1 06-Jan-27	06-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B3-Connect Thermal Control System
CON-16850	S2-A-F1-A-B3-Place Column Concrete		* 07-Jan-27	07-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B3-Place Column Concrete
CON-16860	S2-A-F1-A-B3-Cure Column Concrete		7 03-Jan-27	14-Jan-27	5609 - TCD [P]	1 S2-A-F1-A-B3-Cure Column Concrete
CON-16870	S2-A-F1-A-B3-Strip Column Forms 1 Day Minimum Removal		1 08-Jan-27	08-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-A-B3-Strip Column Forms 1 Day Minimum Removal
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | F & S | Bent A-B4						17-Mar-27, Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1
CON-17010	S2-A-F1-A-B4-Prep Work Pad For Type 2 Shaft		1 13-Nov-25	13-Nov-25	5609 - SWD, Hol	1 S2-A-F1-A-B4-Prep Work Pad For Type 2 Shaft
CON-17130	S2-A-F1-A-B4-Install CIDH Shafts		4 17-Feb-26	20-Feb-26	5609 - SWD, Hol	1 S2-A-F1-A-B4-Install CIDH Shafts
CON-17270	S2-A-F1-A-B4-Cure Shaft		7 21-Feb-26	27-Feb-26	5609 - TCD [P]	1 S2-A-F1-A-B4-Cure Shaft
CON-17280	S2-A-F1-A-B4-Prep Transition Zone/Set Column Cage & Guy		4 23-Feb-26	28-Feb-26	5609 - SWD, Hol	1 S2-A-F1-A-B4-Prep Transition Zone/Set Column Cage & Guy
CON-17480	S2-A-F1-A-B4-Place Transition Zone Concrete		1 02-Mar-26	02-Mar-26	5609 - SWD, Hol	1 S2-A-F1-A-B4-Place Transition Zone Concrete
CON-17530	S2-A-F1-A-B4-Cure Transition Zone Concrete		7 03-Mar-26	05-Mar-26	5609 - TCD [P]	1 S2-A-F1-A-B4-Cure Transition Zone Concrete
CON-17540	S2-A-F1-A-B4-Form Column		3 03-Mar-26	05-Mar-26	5609 - SWD, Hol	1 S2-A-F1-A-B4-Form Column
CON-17620	S2-A-F1-A-B4-Connect Thermal Control System		1 06-Mar-26	06-Mar-26	5609 - SWD, Hol	1 S2-A-F1-A-B4-Connect Thermal Control System
CON-17790	S2-A-F1-A-B4-Place Column Concrete		1 10-Mar-26	10-Mar-26	5609 - SWD, Hol	1 S2-A-F1-A-B4-Place Column Concrete
CON-17850	S2-A-F1-A-B4-Cure Column Concrete		7 11-Mar-26	17-Mar-26	5609 - TCD [P]	1 S2-A-F1-A-B4-Cure Column Concrete
CON-17860	S2-A-F1-A-B4-Strip Column Forms 1 Day Minimum Removal		1 11-Mar-26	11-Mar-26	5609 - SWD, Hol	1 S2-A-F1-A-B4-Strip Column Forms 1 Day Minimum Removal
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | Sup						04-Aug-27, Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | Sup | FW						03-Aug-27, Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1
CON-18290	S2-A-F1-FW-Install Grillage/Bents/Bent Caps/Posts E Side Of Sepulveda		8 26-Jan-27	01-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-FW-Install Grillage/Bents/Bent Caps/Posts E Side Of Sepulveda
CON-18550	S2-A-F1-FW-Install Transverse FW Beams Over NB Sepulveda & Median		1 08-Feb-27	08-Feb-27	5609 - Weekends, TDay, Xmas, WC, Oy	1 S2-A-F1-FW-Install Transverse FW Beams Over NB Sepulveda & Median
CON-18010	S2-A-F1-FW-Install Grillage/Bents/Bent Caps/Posts W Side Of Sepulveda		3 18-Mar-27	22-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	1 S2-A-F1-FW-Install Grillage/Bents/Bent Caps/Posts W Side Of Sepulveda
CON-18280	S2-A-F1-FW-Install Transverse FW Beams Over SB Sepulveda & Median		1 27-Mar-27	27-Mar-27	5609 - Weekends, TDay, Xmas, WC, Oy	1 S2-A-F1-FW-Install Transverse FW Beams Over SB Sepulveda & Median
CON-41300	S2-A-F1-FW-Remove Falsework Over NB Sepulveda		2 17-Jul-27	18-Jul-27	5609 - Weekends, TDay, Xmas, WC, Oy	1 S2-A-F1-FW-Remove Falsework Over NB Sepulveda

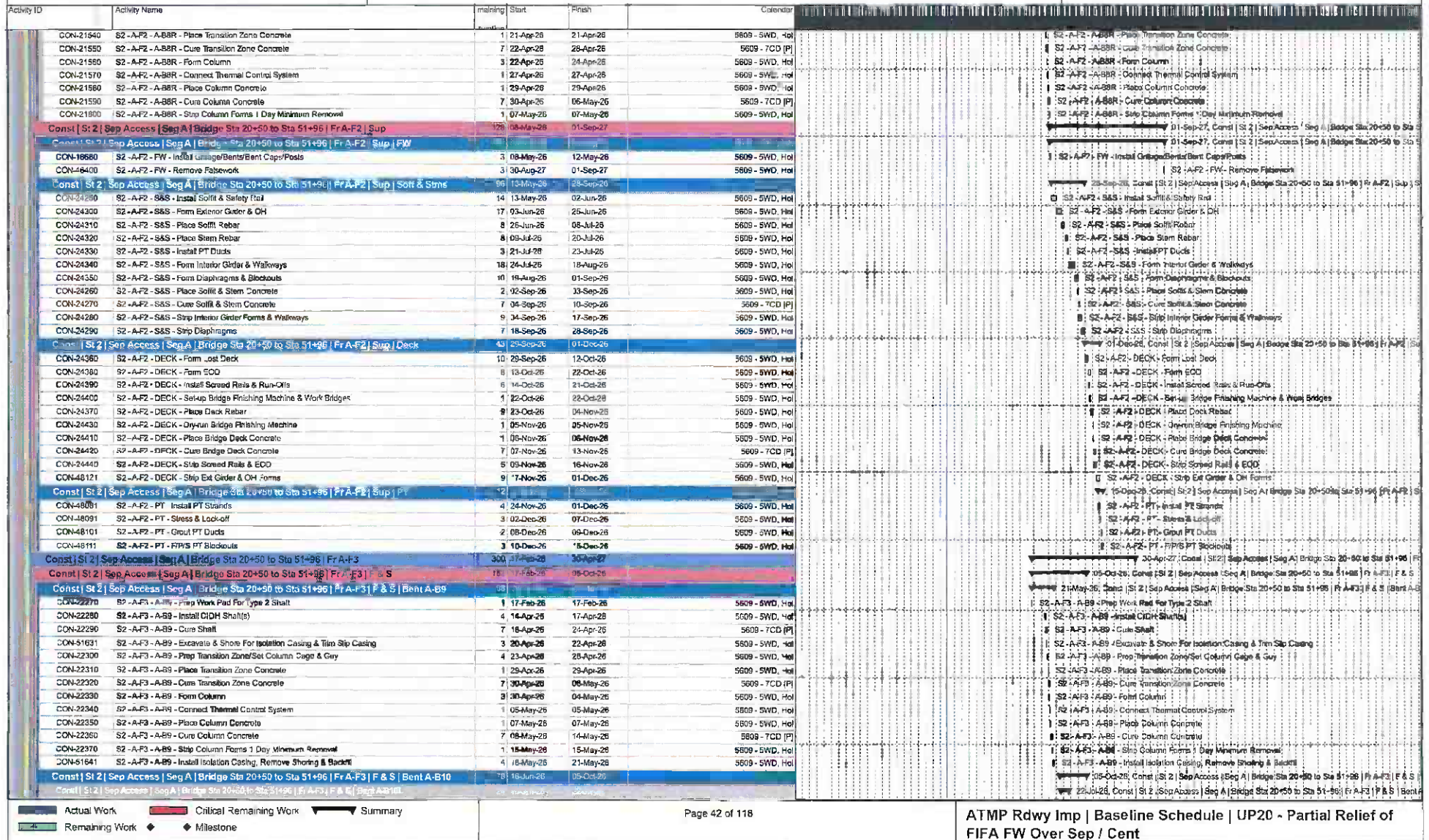
Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Remaining	Start	Finish	Calendar	
CON-44080	S2-A-F1-FW-Remove Falsework Over SB Sepulveda		24-Jul-27	25-Jul-27	5609 - Weekends, TDay, Xmas, WC, Oy	S2-A-F1-FW-Remove Falsework Over SB Sepulveda
CON-45000	S2-A-F1-FW-Remove Falsework W Side of Sepulveda		26-Jul-27	30-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S2-A-F1-FW-Remove Falsework W Side of Sepulveda
CON-45010	S2-A-F1-FW-Remove Falsework E Side of Sepulveda		02-Aug-27	03-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S2-A-F1-FW-Remove Falsework E Side of Sepulveda
Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | Sup | Soff & Strms		78	07-Feb-27	27-May-27		78-May-27, Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96
CON-18670	S2-A-F1-S&S-Install Soffit & Safety Rail Span 3 Over NB Sepulveda		07-Feb-27	07-Feb-27	5609 - Weekends, TDay, Xmas, WC, Oy	S2-A-F1-S&S-Install Soffit & Safety Rail Span 3 Over NB Sepulveda
CON-18680	S2-A-F1-S&S-Form Exterior Gider & OH Spans 1-2		08-Feb-27	17-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S2-A-F1-S&S-Form Exterior Gider & OH Spans 1-2
CON-18430	S2-A-F1-S&S-Install Soffit & Safety Rail Span 1-2 Over SB Sepulveda		28-Mar-27	28-Mar-27	5609 - Weekends, TDay, Xmas, WC, Oy	S2-A-F1-S&S-Install Soffit & Safety Rail Span 1-2 Over SB Sepulveda
CON-18850	S2-A-F1-S&S-Form Exterior Gider & OH Span 3		29-Mar-27	02-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S2-A-F1-S&S-Form Exterior Gider & OH Span 3
CON-54311	S2-A-F1-S&S-Install Elastomeric Bearing Pads @ AA1		03-Apr-27	04-Apr-27	5609 - Weekends, TDay, Xmas, WC, Oy	S2-A-F1-S&S-Install Elastomeric Bearing Pads @ AA1
CON-19000	S2-A-F1-S&S-Place Soffit Rebar		05-Apr-27	12-Apr-27	5609 - SWD, Hol	S2-A-F1-S&S-Place Soffit Rebar
CON-19050	S2-A-F1-S&S-Place Stem Rebar		13-Apr-27	20-Apr-27	5609 - SWD, Hol	S2-A-F1-S&S-Place Stem Rebar
CON-19100	S2-A-F1-S&S-Install PT Ducts		21-Apr-27	23-Apr-27	5609 - SWD, Hol	S2-A-F1-S&S-Install PT Ducts
CON-19180	S2-A-F1-S&S-Form Interior Gider & Walkways		25-Apr-27	04-May-27	5609 - SWD, Hol	S2-A-F1-S&S-Form Interior Gider & Walkways
CON-19310	S2-A-F1-S&S-Form Diaphragms & Blockouts		05-May-27	13-May-27	5609 - SWD, Hol	S2-A-F1-S&S-Form Diaphragms & Blockouts
CON-19630	S2-A-F1-S&S-Place Soffit & Stem Concrete		14-May-27	17-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S2-A-F1-S&S-Place Soffit & Stem Concrete
CON-19690	S2-A-F1-S&S-Cure Soffit & Stem Concrete		18-May-27	24-May-27	5609 - TCD [P]	S2-A-F1-S&S-Cure Soffit & Stem Concrete
CON-19670	S2-A-F1-S&S-Strip Interior Gider Forms & Walkways		18-May-27	21-May-27	5609 - SWD, Hol	S2-A-F1-S&S-Strip Interior Gider Forms & Walkways
CON-19920	S2-A-F1-S&S-Strip Diaphragms		24-May-27	27-May-27	5609 - SWD, Hol	S2-A-F1-S&S-Strip Diaphragms
Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | Sup | Deck		30	26-May-27	12-Jul-27		12-Jul-27, Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96
CON-19910	S2-A-F1-Deck-Form Lost Deck		26-May-27	07-Jun-27	5609 - SWD, Hol	S2-A-F1-Deck-Form Lost Deck
CON-20010	S2-A-F1-Deck-Form EOD		08-Jun-27	15-Jun-27	5609 - SWD, Hol	S2-A-F1-Deck-Form EOD
CON-20040	S2-A-F1-Deck-Install Soread Rails & Run-Offs		09-Jun-27	17-Jun-27	5609 - SWD, Hol	S2-A-F1-Deck-Install Soread Rails & Run-Offs
CON-20110	S2-A-F1-Deck-Place Deck Rebar		16-Jun-27	24-Jun-27	5609 - SWD, Hol	S2-A-F1-Deck-Place Deck Rebar
CON-20130	S2-A-F1-Deck-Setup Bridge Finishing Machine & Work Bridges		18-Jun-27	18-Jun-27	5609 - SWD, Hol	S2-A-F1-Deck-Setup Bridge Finishing Machine & Work Bridges
CON-20160	S2-A-F1-Deck-Dryrun Bridge Finishing Machine		25-Jun-27	25-Jun-27	5609 - SWD, Hol	S2-A-F1-Deck-Dryrun Bridge Finishing Machine
CON-20200	S2-A-F1-Deck-Place Bridge Deck Concrete		28-Jun-27	28-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S2-A-F1-Deck-Place Bridge Deck Concrete
CON-20240	S2-A-F1-Deck-Cure Bridge Deck Concrete		29-Jun-27	05-Jul-27	5609 - TCD [P]	S2-A-F1-Deck-Cure Bridge Deck Concrete
CON-20290	S2-A-F1-Deck-Strip Soread Rails & EOD		30-Jun-27	01-Jul-27	5609 - SWD, Hol	S2-A-F1-Deck-Strip Soread Rails & EOD
CON-20260	S2-A-F1-Deck-Strip Ext Gider & OH Forms		02-Jul-27	12-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S2-A-F1-Deck-Strip Ext Gider & OH Forms
Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | Sup | PT		21	07-Jul-27	04-Aug-27		04-Aug-27, Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96
CON-47991	S2-A-F1-PT-Install PT Strands		07-Jul-27	12-Jul-27	5609 - SWD, Hol	S2-A-F1-PT-Install PT Strands
CON-48001	S2-A-F1-PT-Struss & Lock-off		13-Jul-27	15-Jul-27	5609 - SWD, Hol	S2-A-F1-PT-Struss & Lock-off
CON-48011	S2-A-F1-PT-Grout PT Ducts		16-Jul-27	19-Jul-27	5609 - SWD, Hol	S2-A-F1-PT-Grout PT Ducts
CON-48021	S2-A-F1-PT-F/PIS PT Blockouts		20-Jul-27	22-Jul-27	5609 - SWD, Hol	S2-A-F1-PT-F/PIS PT Blockouts
CON-48031	S2-A-F1-PT-Place Backwall Rebar AA1		23-Jul-27	23-Jul-27	5609 - SWD, Hol	S2-A-F1-PT-Place Backwall Rebar AA1
CON-48041	S2-A-F1-PT-Form 2S Backwall AA1		26-Jul-27	26-Jul-27	5609 - SWC, Hol	S2-A-F1-PT-Form 2S Backwall AA1
CON-48051	S2-A-F1-PT-Place Backwall Concrete AA1		27-Jul-27	27-Jul-27	5609 - SWD, Hol	S2-A-F1-PT-Place Backwall Concrete AA1
CON-48061	S2-A-F1-PT-Cure Backwall Concrete AA1		28-Jul-27	03-Aug-27	5609 - TCD [P]	S2-A-F1-PT-Cure Backwall Concrete AA1
CON-48071	S2-A-F1-PT-Strip Backwall Forms/Clean Bridge Seal 1 Day Minimum Removal AA1		04-Aug-27	04-Aug-27	5609 - SWD, Hol	S2-A-F1-PT-Strip Backwall Forms/Clean Bridge Seal 1 Day Minimum Removal AA1
Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2		39	03-Feb-26	17-Sep-27		17-Sep-27, Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96
Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S		37	23-Feb-26	07-May-26		07-May-26, Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96
Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B5		43	23-Feb-26	13-Apr-26		13-Apr-26, Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96
CON-20980	S2-A-F2-A-B5-Prep Work Pad For Type 2 Shaft		03-Feb-26	30-Feb-26	5609 - SWD, Hol	S2-A-F2-A-B5-Prep Work Pad For Type 2 Shaft
CON-20990	S2-A-F2-A-B5-Install C/DH Shaft(s)		27-Feb-26	24-Mar-26	5609 - SWD, Hol	S2-A-F2-A-B5-Install C/DH Shaft(s)
CON-20970	S2-A-F2-A-B5-Cure Shaft		25-Mar-26	11-Mar-26	5609 - TCD [P]	S2-A-F2-A-B5-Cure Shaft
CON-51991	S2-A-F2-A-B5-Excavate for Isolation Casing & Tilt Slip Casing		25-Mar-26	26-Mar-26	5609 - SWD, Hol	S2-A-F2-A-B5-Excavate for Isolation Casing & Tilt Slip Casing
CON-20980	S2-A-F2-A-B5-Prep Transition Zone/Set Column Cage & Guy		26-Mar-26	12-Mar-26	5609 - SWD, Hol	S2-A-F2-A-B5-Prep Transition Zone/Set Column Cage & Guy
CON-20990	S2-A-F2-A-B5-Place Transition Zone Concrete		13-Mar-26	13-Mar-26	5609 - SWD, Hol	S2-A-F2-A-B5-Place Transition Zone Concrete
CON-21000	S2-A-F2-A-B5-Cure Transition Zone Concrete		14-Mar-26	20-Mar-26	5609 - TCD [P]	S2-A-F2-A-B5-Cure Transition Zone Concrete
CON-21010	S2-A-F2-A-B5-Form Column		18-Mar-26	18-Mar-26	5609 - SWD, Hol	S2-A-F2-A-B5-Form Column
CON-21020	S2-A-F2-A-B5-Connect Thermal Control System		19-Mar-26	19-Mar-26	5609 - SWD, Hol	S2-A-F2-A-B5-Connect Thermal Control System
CON-21030	S2-A-F2-A-B5-Place Column Concrete		23-Mar-26	23-Mar-26	5609 - SWD, Hol	S2-A-F2-A-B5-Place Column Concrete
CON-21040	S2-A-F2-A-B5-Cure Column Concrete		24-Mar-26	30-Mar-26	5609 - TCD [P]	S2-A-F2-A-B5-Cure Column Concrete
CON-21050	S2-A-F2-A-B5-Strip Column Forms 1 Day Minimum Removal		31-Mar-26	31-Mar-26	5609 - SWD, Hol	S2-A-F2-A-B5-Strip Column Forms 1 Day Minimum Removal
CON-51801	S2-A-F2-A-B5-Install Isolation Casing & Backfill		01-Apr-26	03-Apr-26	5609 - SWD, Hol	S2-A-F2-A-B5-Install Isolation Casing & Backfill
Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B5		49	05-Feb-26	15-Apr-26		15-Apr-26, Const | SI 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96
CON-21060	S2-A-F2-A-B5-Prep Work Pad For Type 2 Shaft		05-Feb-26	05-Feb-26	5609 - SWD, Hol	S2-A-F2-A-B5-Prep Work Pad For Type 2 Shaft

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-21070	S2 - A-F2 - A-B6 - Install CIDH Shaft(s)		4/11-Mar-26	16-Mar-26	5609 - SWD, Hol	S2 - A-F2 - A-B6 - Install CIDH Shaft(s)
CON-21080	S2 - A-F2 - A-B6 - Cure Shaft		7/17-Mar-26	23-Mar-26	5609 - TCD [P]	S2 - A-F2 - A-B6 - Cure Shaft
CON-21090	S2 - A-F2 - A-B6 - Excavate for Isolation Casing & Tilt Slip Casing		2/17-Mar-26	18-Mar-26	5609 - SWD, Hol	S2 - A-F2 - A-B6 - Excavate for Isolation Casing & Tilt Slip Casing
CON-21100	S2 - A-F2 - A-B6 - Prep Transition Zone/Set Column Cage & Guy		4/19-Mar-26	24-Mar-26	5609 - SWD, Hol	S2 - A-F2 - A-B6 - Prep Transition Zone/Set Column Cage & Guy
CON-21110	S2 - A-F2 - A-B6 - Place Transition Zone Concrete		1/25-Mar-26	25-Mar-26	5609 - SWD, Hol	S2 - A-F2 - A-B6 - Place Transition Zone Concrete
CON-21120	S2 - A-F2 - A-B6 - Cure Transition Zone Concrete		7/26-Mar-26	01-Apr-26	5609 - TCD [P]	S2 - A-F2 - A-B6 - Cure Transition Zone Concrete
CON-21130	S2 - A-F2 - A-B6 - Form Column		3/26-Mar-26	30-Mar-26	5609 - SWD, Hol	S2 - A-F2 - A-B6 - Form Column
CON-21140	S2 - A-F2 - A-B6 - Connect Thermal Control System		1/31-Mar-26	31-Mar-26	5609 - SWD, Hol	S2 - A-F2 - A-B6 - Connect Thermal Control System
CON-21150	S2 - A-F2 - A-B6 - Place Column Concrete		1/02-Apr-26	02-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B6 - Place Column Concrete
CON-21160	S2 - A-F2 - A-B6 - Cure Column Concrete		7/03-Apr-26	09-Apr-26	5609 - TCD [P]	S2 - A-F2 - A-B6 - Cure Column Concrete
CON-21170	S2 - A-F2 - A-B6 - Strip Column Forms 1 Day Minimum Removal		1/10-Apr-26	10-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B6 - Strip Column Forms 1 Day Minimum Removal
CON-21180	S2 - A-F2 - A-B6 - Install Isolation Casing & Backfill		3/13-Apr-26	15-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B6 - Install Isolation Casing & Backfill
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B7						27-Apr-26, Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B7
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B7						27-Apr-26, Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B7
CON-21170	S2 - A-F2 - A-B7R - Prep Work Pad For Type 2 Shaft		1/11-Feb-26	11-Feb-26	5609 - SWD, Hol	S2 - A-F2 - A-B7R - Prep Work Pad For Type 2 Shaft
CON-21180	S2 - A-F2 - A-B7R - Install CIDH Shaft(s)		4/27-Mar-26	01-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B7R - Install CIDH Shaft(s)
CON-21190	S2 - A-F2 - A-B7R - Cure Shaft		7/02-Apr-26	08-Apr-26	5609 - TCD [P]	S2 - A-F2 - A-B7R - Cure Shaft
CON-21200	S2 - A-F2 - A-B7R - Prep Transition Zone/Set Column Cage & Guy		4/02-Apr-26	07-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B7R - Prep Transition Zone/Set Column Cage & Guy
CON-21210	S2 - A-F2 - A-B7R - Place Transition Zone Concrete		1/09-Apr-26	09-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B7R - Place Transition Zone Concrete
CON-21220	S2 - A-F2 - A-B7R - Cure Transition Zone Concrete		7/10-Apr-26	16-Apr-26	5609 - TCD [P]	S2 - A-F2 - A-B7R - Cure Transition Zone Concrete
CON-21230	S2 - A-F2 - A-B7R - Form Column		3/10-Apr-26	14-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B7R - Form Column
CON-21240	S2 - A-F2 - A-B7R - Connect Thermal Control System		1/15-Apr-26	15-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B7R - Connect Thermal Control System
CON-21250	S2 - A-F2 - A-B7R - Place Column Concrete		1/17-Apr-26	17-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B7R - Place Column Concrete
CON-21260	S2 - A-F2 - A-B7R - Cure Column Concrete		7/19-Apr-26	24-Apr-26	5609 - TCD [P]	S2 - A-F2 - A-B7R - Cure Column Concrete
CON-21270	S2 - A-F2 - A-B7R - Strip Column Forms 1 Day Minimum Removal		1/27-Apr-26	27-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B7R - Strip Column Forms 1 Day Minimum Removal
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B7						27-Apr-26, Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B7
CON-21280	S2 - A-F2 - A-B7L - Prep Work Pad For Type 2 Shaft		1/09-Feb-26	09-Feb-26	5609 - SWD, Hol	S2 - A-F2 - A-B7L - Prep Work Pad For Type 2 Shaft
CON-21290	S2 - A-F2 - A-B7L - Install CIDH Shaft(s)		4/23-Mar-26	26-Mar-26	5609 - SWD, Hol	S2 - A-F2 - A-B7L - Install CIDH Shaft(s)
CON-21300	S2 - A-F2 - A-B7L - Cure Shaft		7/27-Mar-26	32-Mar-26	5609 - TCD [P]	S2 - A-F2 - A-B7L - Cure Shaft
CON-21310	S2 - A-F2 - A-B7L - Prep Transition Zone/Set Column Cage & Guy		4/27-Mar-26	31-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B7L - Prep Transition Zone/Set Column Cage & Guy
CON-21320	S2 - A-F2 - A-B7L - Place Transition Zone Concrete		1/03-Apr-26	03-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B7L - Place Transition Zone Concrete
CON-21330	S2 - A-F2 - A-B7L - Cure Transition Zone Concrete		7/04-Apr-26	10-Apr-26	5609 - TCD [P]	S2 - A-F2 - A-B7L - Cure Transition Zone Concrete
CON-21340	S2 - A-F2 - A-B7L - Form Column		3/09-Apr-26	09-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B7L - Form Column
CON-21350	S2 - A-F2 - A-B7L - Connect Thermal Control System		1/09-Apr-26	09-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B7L - Connect Thermal Control System
CON-21360	S2 - A-F2 - A-B7L - Place Column Concrete		1/13-Apr-26	13-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B7L - Place Column Concrete
CON-21370	S2 - A-F2 - A-B7L - Cure Column Concrete		7/14-Apr-26	20-Apr-26	5609 - TCD [P]	S2 - A-F2 - A-B7L - Cure Column Concrete
CON-21380	S2 - A-F2 - A-B7L - Strip Column Forms 1 Day Minimum Removal		1/21-Apr-26	21-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B7L - Strip Column Forms 1 Day Minimum Removal
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B8						07-May-26, Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B8
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B8						07-May-26, Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B8
CON-21390	S2 - A-F2 - A-B8L - Prep Work Pad For Type 2 Shaft		1/12-Feb-26	12-Feb-26	5609 - SWD, Hol	S2 - A-F2 - A-B8L - Prep Work Pad For Type 2 Shaft
CON-21400	S2 - A-F2 - A-B8L - Install CIDH Shaft(s)		4/02-Apr-26	07-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B8L - Install CIDH Shaft(s)
CON-21410	S2 - A-F2 - A-B8L - Cure Shaft		7/06-Apr-26	14-Apr-26	5609 - TCD [P]	S2 - A-F2 - A-B8L - Cure Shaft
CON-21420	S2 - A-F2 - A-B8L - Excavate for Isolation Casing & Tilt Slip Casing		2/08-Apr-26	09-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B8L - Excavate for Isolation Casing & Tilt Slip Casing
CON-21430	S2 - A-F2 - A-B8L - Prep Transition Zone/Set Column Cage & Guy		4/10-Apr-26	15-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B8L - Prep Transition Zone/Set Column Cage & Guy
CON-21440	S2 - A-F2 - A-B8L - Place Transition Zone Concrete		1/16-Apr-26	16-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B8L - Place Transition Zone Concrete
CON-21450	S2 - A-F2 - A-B8L - Cure Transition Zone Concrete		7/17-Apr-26	23-Apr-26	5609 - TCD [P]	S2 - A-F2 - A-B8L - Cure Transition Zone Concrete
CON-21460	S2 - A-F2 - A-B8L - Form Column		3/17-Apr-26	21-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B8L - Form Column
CON-21470	S2 - A-F2 - A-B8L - Connect Thermal Control System		1/22-Apr-26	22-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B8L - Connect Thermal Control System
CON-21480	S2 - A-F2 - A-B8L - Place Column Concrete		1/24-Apr-26	24-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B8L - Place Column Concrete
CON-21490	S2 - A-F2 - A-B8L - Cure Column Concrete		7/25-Apr-26	01-May-26	5609 - TCD [P]	S2 - A-F2 - A-B8L - Cure Column Concrete
CON-21500	S2 - A-F2 - A-B8L - Strip Column Forms 1 Day Minimum Removal		1/04-May-26	04-May-26	5609 - SWD, Hol	S2 - A-F2 - A-B8L - Strip Column Forms 1 Day Minimum Removal
CON-21510	S2 - A-F2 - A-B8L - Install Isolation Casing & Backfill		3/05-May-26	07-May-26	5609 - SWD, Hol	S2 - A-F2 - A-B8L - Install Isolation Casing & Backfill
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B8						07-May-26, Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B8
CON-21520	S2 - A-F2 - A-B8R - Prep Work Pad For Type 2 Shaft		1/13-Feb-26	13-Feb-26	5609 - SWD, Hol	S2 - A-F2 - A-B8R - Prep Work Pad For Type 2 Shaft
CON-21530	S2 - A-F2 - A-B8R - Install CIDH Shaft(s)		4/08-Apr-26	13-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B8R - Install CIDH Shaft(s)
CON-21540	S2 - A-F2 - A-B8R - Cure Shaft		7/14-Apr-26	20-Apr-26	5609 - TCD [P]	S2 - A-F2 - A-B8R - Cure Shaft
CON-21550	S2 - A-F2 - A-B8R - Prep Transition Zone/Set Column Cage & Guy		4/14-Apr-26	17-Apr-26	5609 - SWD, Hol	S2 - A-F2 - A-B8R - Prep Transition Zone/Set Column Cage & Guy

Actual Work Critical Remaining Work Summary
Remaining Work Milestone



Activity ID	Activity Name	Planning	Start	Finish	Calendar	Calendar
CON-22490	S2 - A-F3 - A-B10L - Prep Work Pad For Type 2 Shaft		18-Jun-26	18-Jun-26	5609 - SWD, Hol	S2 - A-F3 - A-B10L - Prep Work Pad For Type 2 Shaft
CON-22500	S2 - A-F3 - A-B10L - Install CIDH Shaft(s)		23-Jun-26	26-Jun-26	5609 - SWD, Hol	S2 - A-F3 - A-B10L - Install CIDH Shaft(s)
CON-22510	S2 - A-F3 - A-B10L - Cure Shaft		27-Jun-26	03-Jul-26	5609 - TCD [P]	S2 - A-F3 - A-B10L - Cure Shaft
CON-22520	S2 - A-F3 - A-B10L - Prep Transition Zone/Set Column Cage & Guy		25-Jun-26	02-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10L - Prep Transition Zone/Set Column Cage & Guy
CON-22530	S2 - A-F3 - A-B10L - Place Transition Zone Concrete		05-Jul-26	05-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10L - Place Transition Zone Concrete
CON-22540	S2 - A-F3 - A-B10L - Cure Transition Zone Concrete		07-Jul-26	13-Jul-26	5609 - TCD [P]	S2 - A-F3 - A-B10L - Cure Transition Zone Concrete
CON-22550	S2 - A-F3 - A-B10L - Form Column		07-Jul-26	09-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10L - Form Column
CON-22560	S2 - A-F3 - A-B10L - Connect Thermal Control System		10-Jul-26	10-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10L - Connect Thermal Control System
CON-22570	S2 - A-F3 - A-B10L - Place Column Concrete		14-Jul-26	14-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10L - Place Column Concrete
CON-22580	S2 - A-F3 - A-B10L - Cure Column Concrete		15-Jul-26	21-Jul-26	5609 - TCD [P]	S2 - A-F3 - A-B10L - Cure Column Concrete
CON-22590	S2 - A-F3 - A-B10L - Strip Column Forms 1 Day Minimum Removal		22-Jul-26	22-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10L - Strip Column Forms 1 Day Minimum Removal
CON-22600	S2 - A-F3 - A-B10R - Prep Work Pad For Type 2 Shaft		18-Jun-26	18-Jun-26	5609 - SWD, Hol	S2 - A-F3 - A-B10R - Prep Work Pad For Type 2 Shaft
CON-22610	S2 - A-F3 - A-B10R - Install CIDH Shaft(s)		23-Jun-26	26-Jun-26	5609 - SWD, Hol	S2 - A-F3 - A-B10R - Install CIDH Shaft(s)
CON-22620	S2 - A-F3 - A-B10R - Cure Shaft		27-Jun-26	03-Jul-26	5609 - TCD [P]	S2 - A-F3 - A-B10R - Cure Shaft
CON-22630	S2 - A-F3 - A-B10R - Prep Transition Zone/Set Column Cage & Guy		25-Jun-26	02-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10R - Prep Transition Zone/Set Column Cage & Guy
CON-22640	S2 - A-F3 - A-B10R - Place Transition Zone Concrete		05-Jul-26	05-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10R - Place Transition Zone Concrete
CON-22650	S2 - A-F3 - A-B10R - Cure Transition Zone Concrete		07-Jul-26	13-Jul-26	5609 - TCD [P]	S2 - A-F3 - A-B10R - Cure Transition Zone Concrete
CON-22660	S2 - A-F3 - A-B10R - Form Column		07-Jul-26	09-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10R - Form Column
CON-22670	S2 - A-F3 - A-B10R - Connect Thermal Control System		10-Jul-26	10-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10R - Connect Thermal Control System
CON-22680	S2 - A-F3 - A-B10R - Place Column Concrete		14-Jul-26	14-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10R - Place Column Concrete
CON-22690	S2 - A-F3 - A-B10R - Cure Column Concrete		15-Jul-26	21-Jul-26	5609 - TCD [P]	S2 - A-F3 - A-B10R - Cure Column Concrete
CON-22700	S2 - A-F3 - A-B10R - Strip Column Forms 1 Day Minimum Removal		18-Jul-26	18-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10R - Strip Column Forms 1 Day Minimum Removal
CON-17630	S2 - A-F3 - A-B10 CAP - Erect FW Outigger Bent Cap		23-Jul-26	24-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - Erect FW Outigger Bent Cap
CON-17730	S2 - A-F3 - A-B10 CAP - Install Outigger Bent Cap Soffit & Safety Rail		27-Jul-26	30-Jul-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - Install Outigger Bent Cap Soffit & Safety Rail
CON-17980	S2 - A-F3 - A-B10 CAP - Form Outigger Bent Cap 1S		31-Jul-26	06-Aug-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - Form Outigger Bent Cap 1S
CON-18240	S2 - A-F3 - A-B10 CAP - Place Outigger Bent Cap Rebar		07-Aug-26	12-Aug-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - Place Outigger Bent Cap Rebar
CON-18500	S2 - A-F3 - A-B10 CAP - Install Outigger Bent Cap PT Ducts		13-Aug-26	16-Aug-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - Install Outigger Bent Cap PT Ducts
CON-18710	S2 - A-F3 - A-B10 CAP - Form Outigger Bent Cap 2S		19-Aug-26	25-Aug-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - Form Outigger Bent Cap 2S
CON-18810	S2 - A-F3 - A-B10 CAP - Form Superstructure Blockout Outigger Bent Cap		21-Aug-26	24-Aug-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - Form Superstructure Blockout Outigger Bent Cap
CON-18910	S2 - A-F3 - A-B10 CAP - Place Outigger Bent Cap Concrete		28-Aug-26	28-Aug-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - Place Outigger Bent Cap Concrete
CON-18980	S2 - A-F3 - A-B10 CAP - Cure Outigger Bent Cap Concrete		27-Aug-26	03-Sep-26	5609 - TCD [P]	S2 - A-F3 - A-B10 CAP - Cure Outigger Bent Cap Concrete
CON-19030	S2 - A-F3 - A-B10 CAP - Strip Outigger Bent Cap 1S & 2S Forms		31-Aug-26	03-Sep-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - Strip Outigger Bent Cap 1S & 2S Forms
CON-19150	S2 - A-F3 - A-B10 CAP - PT Outigger Bent Cap 50%		04-Sep-26	10-Sep-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - PT Outigger Bent Cap 50%
CON-19260	S2 - A-F3 - A-B10 CAP - Grout Outigger Bent Cap PT 50%		11-Sep-26	14-Sep-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - Grout Outigger Bent Cap PT 50%
CON-19300	S2 - A-F3 - A-B10 CAP - Cure Grout Outigger Bent Cap PT 50%		15-Sep-26	17-Sep-26	5609 - TCD [P]	S2 - A-F3 - A-B10 CAP - Cure Grout Outigger Bent Cap PT 50%
CON-20440	S2 - A-F3 - A-B10 CAP - PT Outigger Bent Cap 100%		18-Sep-26	23-Sep-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - PT Outigger Bent Cap 100%
CON-20450	S2 - A-F3 - A-B10 CAP - Grout Outigger Bent Cap PT 100%		24-Sep-26	29-Sep-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - Grout Outigger Bent Cap PT 100%
CON-20460	S2 - A-F3 - A-B10 CAP - Cure Grout Outigger Bent Cap PT 100%		30-Sep-26	02-Oct-26	5609 - TCD [P]	S2 - A-F3 - A-B10 CAP - Cure Grout Outigger Bent Cap PT 100%
CON-20470	S2 - A-F3 - A-B10 CAP - Release Outigger Bent Cap FW		05-Oct-26	05-Oct-26	5609 - SWD, Hol	S2 - A-F3 - A-B10 CAP - Release Outigger Bent Cap FW
Const [S12] [Sep Access] [Seg A] [Bridge Sta 20+50 to Sta 51+96] [Fr-A-F3] [Sup]		138	05-Oct-26	30-Apr-27	5609 - SWD, Hol	30-Apr-27, Const [S12] [Sep Access] [Seg A] [Bridge Sta 20+50 to Sta 51+96] [Fr-A-F3] [Sup]
Const [S12] [Sep Access] [Seg A] [Bridge Sta 20+50 to Sta 51+96] [Fr-A-F3] [Sup] [FW]		138	05-Oct-26	30-Apr-27	5609 - SWD, Hol	30-Apr-27, Const [S12] [Sep Access] [Seg A] [Bridge Sta 20+50 to Sta 51+96] [Fr-A-F3] [Sup] [FW]
CON-24610	S2 - A-F3 - FW - Install Galvanne/Bent Cap/Posts		05-Oct-26	12-Oct-26	5609 - SWD, Hol	S2 - A-F3 - FW - Install Galvanne/Bent Cap/Posts
	S2 - A-F3 - FW - Remove Falsework		26-Apr-27	30-Apr-27	5609 - SWD, Hol	S2 - A-F3 - FW - Remove Falsework
Const [S12] [Sep Access] [Seg A] [Bridge Sta 20+50 to Sta 51+96] [Fr-A-F3] [Sup] [Sofft & Strrs]		90	13-Oct-26	15-Jun-27	5609 - SWD, Hol	15-Jun-27, Const [S12] [Sep Access] [Seg A] [Bridge Sta 20+50 to Sta 51+96] [Fr-A-F3] [Sup] [Sofft & Strrs]
CON-24680	S2 - A-F3 - S&S - Install Soffit & Safety Rail		13-Oct-26	23-Oct-26	5609 - SWD, Hol	S2 - A-F3 - S&S - Install Soffit & Safety Rail
CON-24620	S2 - A-F3 - S&S - Form Exterior Girder & OH		26-Oct-26	09-Nov-26	5609 - SWD, Hol	S2 - A-F3 - S&S - Form Exterior Girder & OH
CON-24630	S2 - A-F3 - S&S - Place Soffit Rebar		10-Nov-26	15-Nov-26	5609 - SWD, Hol	S2 - A-F3 - S&S - Place Soffit Rebar
CON-24640	S2 - A-F3 - S&S - Place Stem Rebar		20-Nov-26	01-Dec-26	5609 - SWD, Hol	S2 - A-F3 - S&S - Place Stem Rebar
CON-24650	S2 - A-F3 - S&S - Install PT Ducts		02-Dec-26	07-Dec-26	5609 - SWD, Hol	S2 - A-F3 - S&S - Install PT Ducts
CON-24660	S2 - A-F3 - S&S - Form Interior Girder & Walkways		08-Dec-26	23-Dec-26	5609 - SWD, Hol	S2 - A-F3 - S&S - Form Interior Girder & Walkways
CON-24670	S2 - A-F3 - S&S - Form Diaphragms & Blockouts		29-Dec-26	04-Jan-27	5609 - SWD, Hol	S2 - A-F3 - S&S - Form Diaphragms & Blockouts
CON-24470	S2 - A-F3 - S&S - Place Soffit & Stem Concrete		25-Jan-27	06-Feb-27	5609 - TCD [P]	S2 - A-F3 - S&S - Place Soffit & Stem Concrete
CON-24480	S2 - A-F3 - S&S - Cure Soffit & Stem Concrete		27-Jan-27	13-Feb-27	5609 - TCD [P]	S2 - A-F3 - S&S - Cure Soffit & Stem Concrete
CON-24490	S2 - A-F3 - S&S - Strip Interior Girder Forms & Walkways		07-Jan-27	13-Jan-27	5609 - SWD, Hol	S2 - A-F3 - S&S - Strip Interior Girder Forms & Walkways
CON-24500	S2 - A-F3 - S&S - Strip Diaphragms		14-Jan-27	18-Jan-27	5609 - SWD, Hol	S2 - A-F3 - S&S - Strip Diaphragms

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F3 | Sup | Deck			34	19-Jan-27	05-Mar-27	
CON-24510	S2-A-F3 - DECK - Form Lost Deck		6	19-Jan-27	26-Jan-27	5609 - SWD, Hol
CON-24530	S2-A-F3 - DECK - Form EOD		6	27-Jan-27	03-Feb-27	5609 - SWD, Hol
CON-24540	S2-A-F3 - DECK - Install Scaff Rail & Run-Offs		6	28-Jan-27	04-Feb-27	5609 - SWD, Hol
CON-24520	S2-A-F3 - DECK - Place Deck Rebar		7	04-Feb-27	12-Feb-27	5609 - SWD, Hol
CON-24550	S2-A-F3 - DECK - Setup Bridge Finishing Machine & Work Bridges		1	05-Feb-27	05-Feb-27	5609 - SWD, Hol
CON-24580	S2-A-F3 - DECK - Dry-run Bridge Finishing Machine		1	15-Feb-27	16-Feb-27	5609 - SWD, Hol
CON-24560	S2-A-F3 - DECK - Place Bridge Deck Concrete		1	17-Feb-27	17-Feb-27	5609 - SWD, Hol
CON-24570	S2-A-F3 - DECK - Cure Bridge Deck Concrete		7	18-Feb-27	24-Feb-27	5609 - TCD [P]
CON-24590	S2-A-F3 - DECK - Strip Scaff Rail & EOD		3	25-Feb-27	01-Mar-27	5609 - SWD, Hol
CON-24601	S2-A-F3 - DECK - Strip Ed Order & OH		6	01-Mar-27	08-Mar-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F3 | Sup | PT						
CON-48131	S2-A-F3 - PT - Install PT Strands		4	13-Mar-27	18-Mar-27	5609 - SWD, Hol
CON-48141	S2-A-F3 - PT - Stress & Lock-off		3	19-Mar-27	11-Mar-27	5609 - SWD, Hol
CON-48151	S2-A-F3 - PT - Grout PT Ducts		2	12-Mar-27	15-Mar-27	5609 - SWD, Hol
CON-48161	S2-A-F3 - PT - FRPS PT Blockouts		3	16-Mar-27	18-Mar-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | F & S						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | F & S | Bent A-B11						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | F & S | Bent A-B11						
CON-21610	S2-A-F4 - A-B11L - Prep Work Pad For Type 2 Shaft		1	02-Jul-26	02-Jul-26	5609 - SWD, Hol
CON-21620	S2-A-F4 - A-B11L - Install CIDH Shaft(s)		4	29-Jul-26	03-Aug-26	5609 - SWD, Hol
CON-21630	S2-A-F4 - A-B11L - Cure Shaft		7	06-Aug-26	10-Aug-26	5609 - TCD [P]
CON-21640	S2-A-F4 - A-B11L - Prep Transition Zone/Set Column Cage & Guy		4	04-Aug-26	07-Aug-26	5609 - SWD, Hol
CON-21650	S2-A-F4 - A-B11L - Place Transition Zone Concrete		1	11-Aug-26	11-Aug-26	5609 - SWD, Hol
CON-21660	S2-A-F4 - A-B11L - Cure Transition Zone Concrete		7	12-Aug-26	18-Aug-26	5609 - TCD [P]
CON-21670	S2-A-F4 - A-B11L - Form Column		3	12-Aug-26	14-Aug-26	5609 - SWD, Hol
CON-21680	S2-A-F4 - A-B11L - Connect Thermal Control System		1	17-Aug-26	17-Aug-26	5609 - SWD, Hol
CON-21690	S2-A-F4 - A-B11L - Place Column Concrete		1	19-Aug-26	19-Aug-26	5609 - SWD, Hol
CON-21700	S2-A-F4 - A-B11L - Cure Column Concrete		7	20-Aug-26	26-Aug-26	5609 - TCD [P]
CON-21710	S2-A-F4 - A-B11L - Strip Column Forms 1 Day Minimum Removal		1	27-Aug-26	27-Aug-26	5609 - SWD, Hol
CON-21720	S2-A-F4 - A-B11R - Prep Work Pad For Type 2 Shaft		1	30-Jun-26	30-Jun-26	5609 - SWD, Hol
CON-21730	S2-A-F4 - A-B11R - Install CIDH Shaft(s)		4	23-Jul-26	28-Jul-26	5609 - SWD, Hol
CON-21740	S2-A-F4 - A-B11R - Cure Shaft		7	29-Jul-26	04-Aug-26	5609 - TCD [P]
CON-21750	S2-A-F4 - A-B11R - Prep Transition Zone/Set Column Cage & Guy		4	29-Jul-26	03-Aug-26	5609 - SWD, Hol
CON-21760	S2-A-F4 - A-B11R - Place Transition Zone Concrete		1	05-Aug-26	05-Aug-26	5609 - SWD, Hol
CON-21770	S2-A-F4 - A-B11R - Cure Transition Zone Concrete		7	06-Aug-26	12-Aug-26	5609 - TCD [P]
CON-21780	S2-A-F4 - A-B11R - Form Column		3	06-Aug-26	10-Aug-26	5609 - SWD, Hol
CON-21790	S2-A-F4 - A-B11R - Connect Thermal Control System		1	11-Aug-26	11-Aug-26	5609 - SWD, Hol
CON-21800	S2-A-F4 - A-B11R - Place Column Concrete		1	13-Aug-26	13-Aug-26	5609 - SWD, Hol
CON-21810	S2-A-F4 - A-B11R - Cure Column Concrete		7	14-Aug-26	20-Aug-26	5609 - TCD [P]
CON-21820	S2-A-F4 - A-B11R - Strip Column Forms 1 Day Minimum Removal		1	21-Aug-26	21-Aug-26	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | F & S | Bent A-B12						
CON-21830	S2-A-F4 - A-B12L - Prep Work Pad For Type 2 Shaft		1	26-Jun-26	26-Jun-26	5609 - SWD, Hol
CON-21840	S2-A-F4 - A-B12L - Install CIDH Shaft(s)		4	17-Jul-26	22-Jul-26	5609 - SWD, Hol
CON-21850	S2-A-F4 - A-B12L - Cure Shaft		7	23-Jul-26	29-Jul-26	5609 - TCD [P]
CON-21860	S2-A-F4 - A-B12L - Prep Transition Zone/Set Column Cage & Guy		4	23-Jul-26	28-Jul-26	5609 - SWD, Hol
CON-21870	S2-A-F4 - A-B12L - Place Transition Zone Concrete		1	30-Jul-26	30-Jul-26	5609 - SWD, Hol
CON-21880	S2-A-F4 - A-B12L - Cure Transition Zone Concrete		7	31-Jul-26	06-Aug-26	5609 - TCD [P]
CON-21890	S2-A-F4 - A-B12L - Form Column		3	31-Jul-26	04-Aug-26	5609 - SWD, Hol
CON-21900	S2-A-F4 - A-B12L - Connect Thermal Control System		1	05-Aug-26	05-Aug-26	5609 - SWD, Hol
CON-21910	S2-A-F4 - A-B12L - Place Column Concrete		1	07-Aug-26	07-Aug-26	5609 - SWD, Hol
CON-21920	S2-A-F4 - A-B12L - Cure Column Concrete		7	08-Aug-26	14-Aug-26	5609 - TCD [P]
CON-21930	S2-A-F4 - A-B12L - Strip Column Forms 1 Day Minimum Removal		1	17-Aug-26	17-Aug-26	5609 - SWD, Hol

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-21940	S2-A-F4-A-B12R - Prep Work Pad For Type 2 Shaft		26-Jun-26	28-Jun-26	5609 - SWD, Hol	S2-A-F4-A-B12R - Prep Work Pad For Type 2 Shaft
CON-21950	S2-A-F4-A-B12R - Install CIDH Shaft(s)	4	13-Jul-26	16-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B12R - Install CIDH Shaft(s)
CON-21960	S2-A-F4-A-B12R - Cure Shaft	7	17-Jul-26	23-Jul-26	5609 - TCD [P]	S2-A-F4-A-B12R - Cure Shaft
CON-21970	S2-A-F4-A-B12R - Prep Transition Zone/Set Column Cage & Guy	4	17-Jul-26	22-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B12R - Prep Transition Zone/Set Column Cage & Guy
CON-21980	S2-A-F4-A-B12R - Place Transition Zone Concrete	1	24-Jul-26	24-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B12R - Place Transition Zone Concrete
CON-21990	S2-A-F4-A-B12R - Cure Transition Zone Concrete	7	25-Jul-26	31-Jul-26	5609 - TCD [P]	S2-A-F4-A-B12R - Cure Transition Zone Concrete
CON-22000	S2-A-F4-A-B12R - Form Column	3	27-Jul-26	29-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B12R - Form Column
CON-22010	S2-A-F4-A-B12R - Connect Thermal Control System	1	30-Jul-26	30-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B12R - Connect Thermal Control System
CON-22020	S2-A-F4-A-B12R - Place Column Concrete	1	03-Aug-26	03-Aug-26	5609 - SWD, Hol	S2-A-F4-A-B12R - Place Column Concrete
CON-22030	S2-A-F4-A-B12R - Cure Column Concrete	7	04-Aug-26	10-Aug-26	5609 - TCD [P]	S2-A-F4-A-B12R - Cure Column Concrete
CON-22040	S2-A-F4-A-B12R - Strip Column Forms 1 Day Minimum Removal	1	11-Aug-26	11-Aug-26	5609 - SWD, Hol	S2-A-F4-A-B12R - Strip Column Forms 1 Day Minimum Removal
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | F & S | Bent A-B13						
CON-22050	S2-A-F4-A-B13L - Prep Work Pad For Type 2 Shaft	1	24-Jun-26	24-Jun-26	5609 - SWD, Hol	S2-A-F4-A-B13L - Prep Work Pad For Type 2 Shaft
CON-22060	S2-A-F4-A-B13L - Install CIDH Shaft(s)	4	07-Jul-26	10-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13L - Install CIDH Shaft(s)
CON-22070	S2-A-F4-A-B13L - Cure Shaft	7	11-Jul-26	17-Jul-26	5609 - TCD [P]	S2-A-F4-A-B13L - Cure Shaft
CON-21971	S2-A-F4-A-B13L - Excavate for Isolation Casing & Trim Slip Casing	2	13-Jul-26	14-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13L - Excavate for Isolation Casing & Trim Slip Casing
CON-22080	S2-A-F4-A-B13L - Prep Transition Zone/Set Column Cage & Guy	4	15-Jul-26	20-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13L - Prep Transition Zone/Set Column Cage & Guy
CON-22090	S2-A-F4-A-B13L - Place Transition Zone Concrete	1	21-Jul-26	21-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13L - Place Transition Zone Concrete
CON-22100	S2-A-F4-A-B13L - Cure Transition Zone Concrete	7	22-Jul-26	28-Jul-26	5609 - TCD [P]	S2-A-F4-A-B13L - Cure Transition Zone Concrete
CON-22110	S2-A-F4-A-B13L - Form Column	3	23-Jul-26	24-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13L - Form Column
CON-22120	S2-A-F4-A-B13L - Connect Thermal Control System	1	27-Jul-26	27-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13L - Connect Thermal Control System
CON-22130	S2-A-F4-A-B13L - Place Column Concrete	1	29-Jul-26	29-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13L - Place Column Concrete
CON-22140	S2-A-F4-A-B13L - Cure Column Concrete	7	30-Jul-26	05-Aug-26	5609 - TCD [P]	S2-A-F4-A-B13L - Cure Column Concrete
CON-22150	S2-A-F4-A-B13L - Strip Column Forms 1 Day Minimum Removal	1	06-Aug-26	06-Aug-26	5609 - SWD, Hol	S2-A-F4-A-B13L - Strip Column Forms 1 Day Minimum Removal
CON-22160	S2-A-F4-A-B13L - Install Isolation Casing & Backfill	3	07-Aug-26	11-Aug-26	5609 - SWD, Hol	S2-A-F4-A-B13L - Install Isolation Casing & Backfill
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | F & S | Bent A-B13						
CON-22180	S2-A-F4-A-B13R - Prep Work Pad For Type 2 Shaft	1	22-Jun-26	22-Jun-26	5609 - SWD, Hol	S2-A-F4-A-B13R - Prep Work Pad For Type 2 Shaft
CON-22170	S2-A-F4-A-B13R - Install CIDH Shaft(s)	4	30-Jun-26	06-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13R - Install CIDH Shaft(s)
CON-22180	S2-A-F4-A-B13R - Cure Shaft	7	07-Jul-26	13-Jul-26	5609 - TCD [P]	S2-A-F4-A-B13R - Cure Shaft
CON-21991	S2-A-F4-A-B13R - Excavate for Isolation Casing & Trim Slip Casing	2	07-Jul-26	08-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13R - Excavate for Isolation Casing & Trim Slip Casing
CON-22190	S2-A-F4-A-B13R - Prep Transition Zone/Set Column Cage & Guy	4	09-Jul-26	14-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13R - Prep Transition Zone/Set Column Cage & Guy
CON-22200	S2-A-F4-A-B13R - Place Transition Zone Concrete	1	15-Jul-26	15-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13R - Place Transition Zone Concrete
CON-22210	S2-A-F4-A-B13R - Cure Transition Zone Concrete	7	16-Jul-26	22-Jul-26	5609 - TCD [P]	S2-A-F4-A-B13R - Cure Transition Zone Concrete
CON-22220	S2-A-F4-A-B13R - Form Column	3	16-Jul-26	20-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13R - Form Column
CON-22230	S2-A-F4-A-B13R - Connect Thermal Control System	1	21-Jul-26	21-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13R - Connect Thermal Control System
CON-22240	S2-A-F4-A-B13R - Place Column Concrete	1	23-Jul-26	23-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13R - Place Column Concrete
CON-22250	S2-A-F4-A-B13R - Cure Column Concrete	7	24-Jul-26	30-Jul-26	5609 - TCD [P]	S2-A-F4-A-B13R - Cure Column Concrete
CON-22260	S2-A-F4-A-B13R - Strip Column Forms 1 Day Minimum Removal	1	31-Jul-26	31-Jul-26	5609 - SWD, Hol	S2-A-F4-A-B13R - Strip Column Forms 1 Day Minimum Removal
CON-22270	S2-A-F4-A-B13R - Install Isolation Casing & Backfill	3	03-Aug-26	05-Aug-26	5609 - SWD, Hol	S2-A-F4-A-B13R - Install Isolation Casing & Backfill
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | Sup | FW						
CON-24940	S2-A-F4-FW - Install Collar/Bents/Bent Caps/Posts/Stingers	5	29-Aug-26	03-Sep-26	5609 - SWD, Hol	S2-A-F4-FW - Install Collar/Bents/Bent Caps/Posts/Stingers
CON-24920	S2-A-F4-FW - Remove Falsework	5	28-Aug-26	30-Aug-26	5609 - SWD, Hol	S2-A-F4-FW - Remove Falsework
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | Sup | Soft & Stms						
CON-24930	S2-A-F4-S&S - Install Safety Rail	13	34-Sep-26	23-Sep-26	5609 - SWD, Hol	S2-A-F4-S&S - Install Safety Rail
CON-24840	S2-A-F4-S&S - Form Exterior Girder & CH	13	24-Sep-26	12-Oct-26	5609 - SWD, Hol	S2-A-F4-S&S - Form Exterior Girder & CH
CON-24860	S2-A-F4-S&S - Place Soft Rebar	6	30-Sep-26	27-Oct-26	5609 - SWD, Hol	S2-A-F4-S&S - Place Soft Rebar
CON-24870	S2-A-F4-S&S - Place Stem Rebar	6	30-Sep-26	15-Oct-26	5609 - SWD, Hol	S2-A-F4-S&S - Place Stem Rebar
CON-24880	S2-A-F4-S&S - Install PT Ducts	4	14-Oct-26	19-Oct-26	5609 - SWD, Hol	S2-A-F4-S&S - Install PT Ducts
CON-24850	S2-A-F4-S&S - Form Interior Girder & Walkways	19	20-Oct-26	15-Nov-26	5609 - SWD, Hol	S2-A-F4-S&S - Form Interior Girder & Walkways
CON-24920	S2-A-F4-S&S - Form Diaphragms & Blockouts	3	17-Nov-26	19-Nov-26	5609 - SWD, Hol	S2-A-F4-S&S - Form Diaphragms & Blockouts
CON-24890	S2-A-F4-S&S - Place Soft & Stem Concrete	2	20-Nov-26	23-Nov-26	5609 - SWD, Hol	S2-A-F4-S&S - Place Soft & Stem Concrete
CON-24900	S2-A-F4-S&S - Cure Soft & Stem Concrete	7	24-Nov-26	30-Nov-26	5609 - TCD [P]	S2-A-F4-S&S - Cure Soft & Stem Concrete
CON-24910	S2-A-F4-S&S - Strip Interior Girder Forms & Walkways	2	14-Dec-26	16-Dec-26	5609 - SWD, Hol	S2-A-F4-S&S - Strip Interior Girder Forms & Walkways
CON-24930	S2-A-F4-S&S - Strip Diaphragms	2	14-Dec-26	15-Dec-26	5609 - SWD, Hol	S2-A-F4-S&S - Strip Diaphragms
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | Sup | Deck						

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Quantity	Start	Finish	Calendar	Summary
CON-24730	S2-AF4-DECK-Form Lost Deck	11	16-Dec-26	05-Jan-27	5609-SWD, Hal	S2-AF4-DECK-Form Lost Deck
CON-24750	S2-AF4-DECK-Form EOD	5	07-Jan-27	13-Jan-27	5609-SWD, Hal	S2-AF4-DECK-Form EOD
CON-24760	S2-AF4-DECK-Instal Screed Rails & Run-Offs	6	08-Jan-27	15-Jan-27	5609-SWD, Hal	S2-AF4-DECK-Instal Screed Rails & Run-Offs
CON-24740	S2-AF4-DECK-Place Deck Rebar	6	14-Jan-27	21-Jan-27	5609-SWD, Hal	S2-AF4-DECK-Place Deck Rebar
CON-24770	S2-AF4-DECK-Setup Bridge Finishing Machine & Work Bridges	1	18-Jan-27	18-Jan-27	5609-SWD, Hal	S2-AF4-DECK-Setup Bridge Finishing Machine & Work Bridges
CON-24800	S2-AF4-DECK-Dryrun Bridge Finishing Machine	1	22-Jan-27	22-Jan-27	5609-SWD, Hal	S2-AF4-DECK-Dryrun Bridge Finishing Machine
CON-24780	S2-AF4-DECK-Place Bridge Deck Concrete	1	25-Jan-27	25-Jan-27	5609-SWD, Hal	S2-AF4-DECK-Place Bridge Deck Concrete
CON-24760	S2-AF4-DECK-Cure Bridge Deck Concrete	7	26-Jan-27	01-Feb-27	5609-TCD [P]	S2-AF4-DECK-Cure Bridge Deck Concrete
CON-24810	S2-AF4-DECK-Strip Screed Rails & EOD	2	02-Feb-27	03-Feb-27	5609-SWD, Hal	S2-AF4-DECK-Strip Screed Rails & EOD
CON-24710	S2-AF4-DECK-Strip Exterior Girders & OH Forms	7	04-Feb-27	12-Feb-27	5609-SWD, Hal	S2-AF4-DECK-Strip Exterior Girders & OH Forms
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F | Sup | PT		12	09-Feb-27	25-Feb-27	5609-SWD, Hal	Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F | Sup | PT
CON-24650	S2-AF4-PT-Instal PT Strands	4	09-Feb-27	12-Feb-27	5609-SWD, Hal	S2-AF4-PT-Instal PT Strands
CON-24690	S2-AF4-PT-Stress & Lock-off	3	16-Feb-27	18-Feb-27	5609-SWD, Hal	S2-AF4-PT-Stress & Lock-off
CON-24700	S2-AF4-PT-Grout PT Ducts	2	19-Feb-27	22-Feb-27	5609-SWD, Hal	S2-AF4-PT-Grout PT Ducts
CON-24720	S2-AF4-PT-FRPS PT Blockouts	3	23-Feb-27	25-Feb-27	5609-SWD, Hal	S2-AF4-PT-FRPS PT Blockouts
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F | S		116	16-Feb-26	04-Aug-26		Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F | S
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F | S | Bent A-B14		26	17-Jun-26	23-Jul-26		Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F | S | Bent A-B14
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F | S | Bent A-B14						Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F | S | Bent A-B14
CON-22710	S2-AF5-A-B14L-Prop Work Pad For Type 2 Shaft	1	18-Jun-26	18-Jun-26	5609-SWD, Hal	S2-AF5-A-B14L-Prop Work Pad For Type 2 Shaft
CON-22720	S2-AF5-A-B14L-Instal CIDH Shafts	4	24-Jun-26	29-Jun-26	5609-SWD, Hal	S2-AF5-A-B14L-Instal CIDH Shafts
CON-22730	S2-AF5-A-B14L-Cure Shaft	7	30-Jun-26	06-Jul-26	5609-TCD [P]	S2-AF5-A-B14L-Cure Shaft
CON-22740	S2-AF5-A-B14L-Prop Transition Zone/Set Column Cage & Guy	4	30-Jun-26	06-Jul-26	5609-SWD, Hal	S2-AF5-A-B14L-Prop Transition Zone/Set Column Cage & Guy
CON-22750	S2-AF5-A-B14L-Place Transition Zone Concrete	1	07-Jul-26	07-Jul-26	5609-SWD, Hal	S2-AF5-A-B14L-Place Transition Zone Concrete
CON-22760	S2-AF5-A-B14L-Cure Transition Zone Concrete	7	08-Jul-26	14-Jul-26	5609-TCD [P]	S2-AF5-A-B14L-Cure Transition Zone Concrete
CON-22770	S2-AF5-A-B14L-Form Column	3	08-Jul-26	10-Jul-26	5609-SWD, Hal	S2-AF5-A-B14L-Form Column
CON-22780	S2-AF5-A-B14L-Connect Thermal Control System	1	13-Jul-26	13-Jul-26	5609-SWD, Hal	S2-AF5-A-B14L-Connect Thermal Control System
CON-22790	S2-AF5-A-B14L-Place Column Concrete	1	15-Jul-26	15-Jul-26	5609-SWD, Hal	S2-AF5-A-B14L-Place Column Concrete
CON-22800	S2-AF5-A-B14L-Cure Column Concrete	7	16-Jul-26	22-Jul-26	5609-TCD [P]	S2-AF5-A-B14L-Cure Column Concrete
CON-22810	S2-AF5-A-B14L-Strip Column Forms 1 Day Minimum Removal	1	23-Jul-26	23-Jul-26	5609-SWD, Hal	S2-AF5-A-B14L-Strip Column Forms 1 Day Minimum Removal
CON-22820	S2-AF5-A-B14R-Prop Work Pad For Type 2 Shaft	1	17-Jun-26	17-Jun-26	5609-SWD, Hal	S2-AF5-A-B14R-Prop Work Pad For Type 2 Shaft
CON-22830	S2-AF5-A-B14R-Instal CIDH Shafts	4	18-Jun-26	23-Jun-26	5609-SWD, Hal	S2-AF5-A-B14R-Instal CIDH Shafts
CON-22840	S2-AF5-A-B14R-Cure Shaft	7	24-Jun-26	30-Jun-26	5609-TCD [P]	S2-AF5-A-B14R-Cure Shaft
CON-22850	S2-AF5-A-B14R-Prop Transition Zone/Set Column Cage & Guy	4	24-Jun-26	29-Jun-26	5609-SWD, Hal	S2-AF5-A-B14R-Prop Transition Zone/Set Column Cage & Guy
CON-22860	S2-AF5-A-B14R-Place Transition Zone Concrete	1	01-Jul-26	01-Jul-26	5609-SWD, Hal	S2-AF5-A-B14R-Place Transition Zone Concrete
CON-22870	S2-AF5-A-B14R-Cure Transition Zone Concrete	7	02-Jul-26	08-Jul-26	5609-TCD [P]	S2-AF5-A-B14R-Cure Transition Zone Concrete
CON-22880	S2-AF5-A-B14R-Form Column	3	02-Jul-26	07-Jul-26	5609-SWD, Hal	S2-AF5-A-B14R-Form Column
CON-22890	S2-AF5-A-B14R-Connect Thermal Control System	1	08-Jul-26	08-Jul-26	5609-SWD, Hal	S2-AF5-A-B14R-Connect Thermal Control System
CON-22900	S2-AF5-A-B14R-Place Column Concrete	1	09-Jul-26	09-Jul-26	5609-SWD, Hal	S2-AF5-A-B14R-Place Column Concrete
CON-22910	S2-AF5-A-B14R-Cure Column Concrete	7	10-Jul-26	16-Jul-26	5609-TCD [P]	S2-AF5-A-B14R-Cure Column Concrete
CON-22920	S2-AF5-A-B14R-Strip Column Forms 1 Day Minimum Removal	1	17-Jul-26	17-Jul-26	5609-SWD, Hal	S2-AF5-A-B14R-Strip Column Forms 1 Day Minimum Removal
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F | S | Bent A-B15		72	19-Feb-26	23-May-26		Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F | S | Bent A-B15
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F | S | Bent A-B15						Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F | S | Bent A-B15
CON-22930	S2-AF5-A-B15L-Prop Work Pad For Type 2 Shaft	1	19-Feb-26	19-Feb-26	5609-SWD, Hal	S2-AF5-A-B15L-Prop Work Pad For Type 2 Shaft
CON-22940	S2-AF5-A-B15L-Instal CIDH Shafts	4	24-Apr-26	29-Apr-26	5609-SWD, Hal	S2-AF5-A-B15L-Instal CIDH Shafts
CON-22950	S2-AF5-A-B15L-Cure Shaft	7	30-Apr-26	06-May-26	5609-TCD [P]	S2-AF5-A-B15L-Cure Shaft
CON-52011	S2-AF4-A-B15L-Excavate for Isolation Casing & Trim Slip Casing	4	30-Apr-26	01-May-26	5609-SWD, Hal	S2-AF4-A-B15L-Excavate for Isolation Casing & Trim Slip Casing
CON-22960	S2-AF5-A-B15L-Prop Transition Zone/Set Column Cage & Guy	4	34-May-26	37-May-26	5609-SWD, Hal	S2-AF5-A-B15L-Prop Transition Zone/Set Column Cage & Guy
CON-22970	S2-AF5-A-B15L-Place Transition Zone Concrete	1	38-May-26	38-May-26	5609-SWD, Hal	S2-AF5-A-B15L-Place Transition Zone Concrete
CON-22980	S2-AF5-A-B15L-Cure Transition Zone Concrete	1	39-May-26	15-May-26	5609-TCD [P]	S2-AF5-A-B15L-Cure Transition Zone Concrete
CON-22990	S2-AF5-A-B15L-Form Column	3	11-May-26	13-May-26	5609-SWD, Hal	S2-AF5-A-B15L-Form Column
CON-23000	S2-AF5-A-B15L-Connect Thermal Control System	1	14-May-26	14-May-26	5609-SWD, Hal	S2-AF5-A-B15L-Connect Thermal Control System
CON-23010	S2-AF5-A-B15L-Place Column Concrete	1	18-May-26	18-May-26	5609-SWD, Hal	S2-AF5-A-B15L-Place Column Concrete
CON-23020	S2-AF5-A-B15L-Cure Column Concrete	7	19-May-26	25-May-26	5609-TCD [P]	S2-AF5-A-B15L-Cure Column Concrete
CON-23030	S2-AF5-A-B15L-Strip Column Forms 1 Day Minimum Removal	1	26-May-26	26-May-26	5609-SWD, Hal	S2-AF5-A-B15L-Strip Column Forms 1 Day Minimum Removal
CON-52021	S2-AF4-A-B15L-Instal Isolation Casing & Backfill	3	27-May-26	29-May-26	5609-SWD, Hal	S2-AF4-A-B15L-Instal Isolation Casing & Backfill

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F5 | Sup | Bant A-B16						
CON-23040	S2 - A-F5 - A-B15R - Prep Work Pad For Type 2 Shaft	1	18-Feb-26	18-Feb-26	5609 - SWD, Hol	
CON-23050	S2 - A-F5 - A-B15R - Install C/DH Shaft(s)	4	20-Apr-26	23-Apr-26	5609 - SWD, Hol	
CON-23060	S2 - A-F5 - A-B15R - Cure Shaft	7	24-Apr-26	30-Apr-26	5609 - TCD [P]	
CON-23031	S2 - A-F5 - A-B15R - Excavate for Isolation Casing & Trim Slip Casing	2	24-Apr-26	27-Apr-26	5609 - SWD, Hol	
CON-23070	S2 - A-F5 - A-B15R - Prep Transition Zone/Set Column Cage & Guy	4	28-Apr-26	01-May-26	5609 - SWD, Hol	
CON-23080	S2 - A-F5 - A-B15R - Place Transition Zone Concrete	1	04-May-26	04-May-26	5609 - SWD, Hol	
CON-23090	S2 - A-F5 - A-B15R - Cure Transition Zone Concrete	7	05-May-26	11-May-26	5609 - TCD [P]	
CON-23100	S2 - A-F5 - A-B15R - Form Column	3	05-May-26	07-May-26	5609 - SWD, Hol	
CON-23110	S2 - A-F5 - A-B15R - Connect Thermal Control System	1	08-May-26	08-May-26	5609 - SWD, Hol	
CON-23120	S2 - A-F5 - A-B15R - Place Column Concrete	1	12-May-26	12-May-26	5609 - SWD, Hol	
CON-23130	S2 - A-F5 - A-B15R - Cure Column Concrete	7	13-May-26	19-May-26	5609 - TCD [P]	
CON-23140	S2 - A-F5 - A-B15R - Strip Column Forms 1 Day Minimum Removal	1	20-May-26	20-May-26	5609 - SWD, Hol	
CON-23041	S2 - A-F5 - A-B15R - Install Isolation Casing & Backfill	3	21-May-26	28-May-26	5609 - SWD, Hol	
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F5 | P & S | Bant A-B16						
CON-23150	S2 - A-F5 - A-B16R - Prep Work Pad For Type 2 Shaft	1	23-Jun-26	23-Jun-26	5609 - SWD, Hol	
CON-23160	S2 - A-F5 - A-B16R - Install C/DH Shaft(s)	4	26-Jun-26	29-Jun-26	5609 - SWD, Hol	
CON-23170	S2 - A-F5 - A-B16R - Cure Shaft	7	03-Jul-26	09-Jul-26	5609 - TCD [P]	
CON-23180	S2 - A-F5 - A-B16R - Prep Transition Zone/Set Column Cage & Guy	4	05-Jul-26	09-Jul-26	5609 - SWD, Hol	
CON-23190	S2 - A-F5 - A-B16R - Place Transition Zone Concrete	1	10-Jul-26	10-Jul-26	5609 - SWD, Hol	
CON-23200	S2 - A-F5 - A-B16R - Cure Transition Zone Concrete	7	11-Jul-26	17-Jul-26	5609 - TCD [P]	
CON-23210	S2 - A-F5 - A-B16R - Form Column	3	13-Jul-26	15-Jul-26	5609 - SWD, Hol	
CON-23220	S2 - A-F5 - A-B16R - Connect Thermal Control System	1	16-Jul-26	16-Jul-26	5609 - SWD, Hol	
CON-23230	S2 - A-F5 - A-B16R - Place Column Concrete	1	20-Jul-26	20-Jul-26	5609 - SWD, Hol	
CON-23240	S2 - A-F5 - A-B16R - Cure Column Concrete	7	21-Jul-26	27-Jul-26	5609 - TCD [P]	
CON-23250	S2 - A-F5 - A-B16R - Strip Column Forms 1 Day Minimum Removal	1	28-Jul-26	28-Jul-26	5609 - SWD, Hol	
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F5 | P & S | Bant A-B16						
CON-23260	S2 - A-F5 - A-B16L - Prep Work Pad For Type 2 Shaft	1	26-Jun-26	26-Jun-26	5609 - SWD, Hol	
CON-23270	S2 - A-F5 - A-B16L - Install C/DH Shaft(s)	4	06-Jul-26	09-Jul-26	5609 - SWD, Hol	
CON-23280	S2 - A-F5 - A-B16L - Cure Shaft	7	10-Jul-26	15-Jul-26	5609 - TCD [P]	
CON-23290	S2 - A-F5 - A-B16L - Prep Transition Zone/Set Column Cage & Guy	4	10-Jul-26	15-Jul-26	5609 - SWD, Hol	
CON-23300	S2 - A-F5 - A-B16L - Place Transition Zone Concrete	1	17-Jul-26	17-Jul-26	5609 - SWD, Hol	
CON-23310	S2 - A-F5 - A-B16L - Cure Transition Zone Concrete	7	18-Jul-26	24-Jul-26	5609 - TCD [P]	
CON-23320	S2 - A-F5 - A-B16L - Form Column	3	20-Jul-26	22-Jul-26	5609 - SWD, Hol	
CON-23330	S2 - A-F5 - A-B16L - Connect Thermal Control System	1	23-Jul-26	23-Jul-26	5609 - SWD, Hol	
CON-23340	S2 - A-F5 - A-B16L - Place Column Concrete	1	27-Jul-26	27-Jul-26	5609 - SWD, Hol	
CON-23350	S2 - A-F5 - A-B16L - Cure Column Concrete	7	28-Jul-26	03-Aug-26	5609 - TCD [P]	
CON-23360	S2 - A-F5 - A-B16L - Strip Column Forms 1 Day Minimum Removal	1	04-Aug-26	04-Aug-26	5609 - SWD, Hol	
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F5 | Sup						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F5 | Sup | FW						
CON-24950	S2 - A-F5 - FW - Install Gillage/Bents/Bent Caps/Posts	3	05-Aug-26	11-Aug-26	5609 - SWD, Hol	
CON-24921	S2 - A-F5 - FW - Remove Falsework	3	05-Aug-26	09-Aug-26	5609 - SWD, Hol	
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F5 | Sup | Soft & Stns						
CON-25060	S2 - A-F5 - S&S - Install Softs & Safety Rail	12	12-Aug-26	27-Aug-26	5609 - SWD, Hol	
CON-25010	S2 - A-F5 - S&S - Form Exterior Girder & OH	10	21-Aug-26	03-Sep-26	5609 - SWD, Hol	
CON-25020	S2 - A-F5 - S&S - Place Softs Rebar	7	04-Sep-26	15-Sep-26	5609 - SWD, Hol	
CON-25030	S2 - A-F5 - S&S - Place Stem Rebar	6	15-Sep-26	22-Sep-26	5609 - SWD, Hol	
CON-25040	S2 - A-F5 - S&S - Install PT Ducts	3	23-Sep-26	25-Sep-26	5609 - SWD, Hol	
CON-25050	S2 - A-F5 - S&S - Form Interior Girder & Walkways	18	28-Sep-26	16-Oct-26	5609 - SWD, Hol	
CON-25060	S2 - A-F5 - S&S - Form Diaphragms & Blockouts	8	13-Oct-26	20-Oct-26	5609 - SWD, Hol	
CON-24970	S2 - A-F5 - S&S - Place Softs & Stem Concrete	2	21-Oct-26	22-Oct-26	5609 - SWD, Hol	
CON-24980	S2 - A-F5 - S&S - Cure Softs & Stem Concrete	7	23-Oct-26	29-Oct-26	5609 - TCD [P]	
CON-24990	S2 - A-F5 - S&S - Strip Interior Girder Forms & Walkways	5	23-Oct-26	28-Oct-26	5609 - SWD, Hol	
CON-25000	S2 - A-F5 - S&S - Strip Diaphragms	3	30-Oct-26	03-Nov-26	5609 - SWD, Hol	
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F5 | Sup | Deck						
CON-25070	S2 - A-F5 - DECK - Form Last Deck	9	04-Nov-26	17-Nov-26	5609 - SWD, Hol	

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-25090	S2-AF5-DECK-Form EOD	5	18-Nov-26	24-Nov-26	5609-SWD, Hol	1 S2-AF5-DECK-Form EOD
CON-25100	S2-AF5-DECK-Install Sorel Rebar & Run-Offs	7	19-Nov-26	31-Dec-26	5609-SWD, Hol	1 S2-AF5-DECK-Install Sorel Rebar & Run-Offs
CON-25080	S2-AF5-DECK-Place Deck Rebar	7	25-Nov-26	31-Dec-26	5609-SWD, Hol	1 S2-AF5-DECK-Place Deck Rebar
CON-25110	S2-AF5-DECK-Set-up Bridge Finishing Machine & Work Bridges	1	22-Dec-26	32-Dec-26	5609-SWD, Hol	1 S2-AF5-DECK-Set-up Bridge Finishing Machine & Work Bridges
CON-25140	S2-AF5-DECK-Dry-run Bridge Finishing Machine	1	29-Dec-26	29-Dec-26	5609-SWD, Hol	1 S2-AF5-DECK-Dry-run Bridge Finishing Machine
CON-25120	S2-AF5-DECK-Place Bridge Deck Concrete	1	10-Dec-26	10-Dec-26	5609-SWD, Hol	1 S2-AF5-DECK-Place Bridge Deck Concrete
CON-25130	S2-AF5-DECK-Cure Bridge Deck Concrete	7	11-Dec-26	17-Dec-26	5609-SWD, Hol	1 S2-AF5-DECK-Cure Bridge Deck Concrete
CON-25150	S2-AF5-DECK-Slip Sorel Rebar & EOD	3	21-Dec-26	23-Dec-26	5609-SWD, Hol	1 S2-AF5-DECK-Slip Sorel Rebar & EOD
CON-48221	S2-AF5-DECK-Slip Ext Gider & OH	6	23-Dec-26	05-Jan-27	5609-SWD, Hol	1 S2-AF5-DECK-Slip Ext Gider & OH
Const | S1 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr-A-F6 | Sup | PT		12	29-Dec-26	15-Jan-27	5609-SWD, Hol	1 S2-AF5-DECK-Place Bridge Deck Concrete
CON-48171	S2-AF5-PT-Install PT Stands	4	29-Dec-26	05-Jan-27	5609-SWD, Hol	1 S2-AF5-PT-Install PT Stands
CON-48161	S2-AF5-PT-Stress & Lockoff	3	06-Jan-27	08-Jan-27	5609-SWD, Hol	1 S2-AF5-PT-Stress & Lockoff
CON-48191	S2-AF5-PT-Grout PT Ducts	2	11-Jan-27	12-Jan-27	5609-SWD, Hol	1 S2-AF5-PT-Grout PT Ducts
CON-48201	S2-AF5-PT-FRP PT Blockouts	3	13-Jan-27	15-Jan-27	5609-SWD, Hol	1 S2-AF5-PT-FRP PT Blockouts
Const | S1 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr-A-F6		317	8-Feb-26	17-May-27		1 S2-AF5-PT-Grout PT Ducts
Const | S1 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr-A-F6a		310	10-Feb-26	10-May-27		1 S2-AF5-PT-FRP PT Blockouts
Const | S1 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr-A-F6a | F & S		40	01-Jul-26	07-Jul-26		1 S2-AF5-PT-Grout PT Ducts
CON-23370	S2-AF6a-A-B17-Prep Work Pad For Type 2 Shaft	1	01-Jul-26	01-Jul-26	5609-SWD, Hol	1 S2-AF6a-A-B17-Prep Work Pad For Type 2 Shaft
CON-23380	S2-AF6a-A-B17-Install CIDH Shaft(s)	1	22-Jul-26	27-Jul-26	5609-SWD, Hol	1 S2-AF6a-A-B17-Install CIDH Shaft(s)
CON-23390	S2-AF6a-A-B17-Cure Shaft	7	28-Jul-26	03-Aug-26	5609-SWD, Hol	1 S2-AF6a-A-B17-Cure Shaft
CON-51651	S2-AF6a-A-B17-Excavate for Isolation Casing & Tim Slip Casing	2	28-Jul-26	29-Jul-26	5609-SWD, Hol	1 S2-AF6a-A-B17-Excavate for Isolation Casing & Tim Slip Casing
CON-23400	S2-AF6a-A-B17-Prep Transition Zone/Set Column Cage & Guy	4	30-Jul-26	04-Aug-26	5609-SWD, Hol	1 S2-AF6a-A-B17-Prep Transition Zone/Set Column Cage & Guy
CON-23410	S2-AF6a-A-B17-Place Transition Zone Concrete	1	05-Aug-26	05-Aug-26	5609-SWD, Hol	1 S2-AF6a-A-B17-Place Transition Zone Concrete
CON-23420	S2-AF6a-A-B17-Cure Transition Zone Concrete	7	05-Aug-26	12-Aug-26	5609-SWD, Hol	1 S2-AF6a-A-B17-Cure Transition Zone Concrete
CON-23430	S2-AF6a-A-B17-Form Column	3	05-Aug-26	10-Aug-26	5609-SWD, Hol	1 S2-AF6a-A-B17-Form Column
CON-23440	S2-AF6a-A-B17-Connect Thermal Control System	1	11-Aug-26	11-Aug-26	5609-SWD, Hol	1 S2-AF6a-A-B17-Connect Thermal Control System
CON-23450	S2-AF6a-A-B17-Place Column Concrete	1	13-Aug-26	13-Aug-26	5609-SWD, Hol	1 S2-AF6a-A-B17-Place Column Concrete
CON-23460	S2-AF6a-A-B17-Cure Column Concrete	7	14-Aug-26	20-Aug-26	5609-SWD, Hol	1 S2-AF6a-A-B17-Cure Column Concrete
CON-23470	S2-AF6a-A-B17-Strip Column Forms 1 Day Minimum Removal	1	21-Aug-26	21-Aug-26	5609-SWD, Hol	1 S2-AF6a-A-B17-Strip Column Forms 1 Day Minimum Removal
CON-51661	S2-AF6a-A-B17-Install Isolation Casing & Backfill	3	24-Aug-26	26-Aug-26	5609-SWD, Hol	1 S2-AF6a-A-B17-Install Isolation Casing & Backfill
Const | S1 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr-A-F6a | F & S | Bort A-B1		27	27-Aug-26	10-May-27		1 S2-AF6a-A-B17-Strip Column Forms 1 Day Minimum Removal
CON-23480	S2-AF6a-A-B18-Prep Work Pad For Type 2 Shaft	1	10-Feb-26	10-Feb-26	5609-SWD, Hol	1 S2-AF6a-A-B18-Prep Work Pad For Type 2 Shaft
CON-23490	S2-AF6a-A-B18-Install CIDH Shaft(s)	4	23-Mar-26	26-Mar-26	5609-SWD, Hol	1 S2-AF6a-A-B18-Install CIDH Shaft(s)
CON-23500	S2-AF6a-A-B18-Cure Shaft	7	27-Mar-26	02-Apr-26	5609-SWD, Hol	1 S2-AF6a-A-B18-Cure Shaft
CON-51671	S2-AF6a-A-B18-Excavate for Isolation Casing & Tim Slip Casing	2	27-Mar-26	30-Mar-26	5609-SWD, Hol	1 S2-AF6a-A-B18-Excavate for Isolation Casing & Tim Slip Casing
CON-23510	S2-AF6a-A-B18-Prep Transition Zone/Set Column Cage & Guy	4	31-Mar-26	03-Apr-26	5609-SWD, Hol	1 S2-AF6a-A-B18-Prep Transition Zone/Set Column Cage & Guy
CON-23520	S2-AF6a-A-B18-Place Transition Zone Concrete	1	06-Apr-26	06-Apr-26	5609-SWD, Hol	1 S2-AF6a-A-B18-Place Transition Zone Concrete
CON-23530	S2-AF6a-A-B18-Cure Transition Zone Concrete	7	07-Apr-26	13-Apr-26	5609-SWD, Hol	1 S2-AF6a-A-B18-Cure Transition Zone Concrete
CON-23540	S2-AF6a-A-B18-Form Column	3	07-Apr-26	09-Apr-26	5609-SWD, Hol	1 S2-AF6a-A-B18-Form Column
CON-23550	S2-AF6a-A-B18-Connect Thermal Control System	1	10-Apr-26	10-Apr-26	5609-SWD, Hol	1 S2-AF6a-A-B18-Connect Thermal Control System
CON-23560	S2-AF6a-A-B18-Place Column Concrete	1	14-Apr-26	14-Apr-26	5609-SWD, Hol	1 S2-AF6a-A-B18-Place Column Concrete
CON-23570	S2-AF6a-A-B18-Cure Column Concrete	7	15-Apr-26	21-Apr-26	5609-SWD, Hol	1 S2-AF6a-A-B18-Cure Column Concrete
CON-23580	S2-AF6a-A-B18-Strip Column Forms 1 Day Minimum Removal	1	22-Apr-26	22-Apr-26	5609-SWD, Hol	1 S2-AF6a-A-B18-Strip Column Forms 1 Day Minimum Removal
CON-51681	S2-AF6a-A-B18-Install Isolation Casing & Backfill	3	23-Apr-26	27-Apr-26	5609-SWD, Hol	1 S2-AF6a-A-B18-Install Isolation Casing & Backfill
Const | S1 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr-A-F6a | Sup		17	27-Aug-26	10-May-27		1 S2-AF6a-A-B18-Strip Column Forms 1 Day Minimum Removal
Const | S1 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr-A-F6a | F & S | Bort A-B1		27	27-Aug-26	10-May-27		1 S2-AF6a-A-B18-Install Isolation Casing & Backfill
CON-23170	S2-AF6a-FW-Install Gables/Bents/Bent Caps/Posts/Stingers	5	27-Sep-26	02-Sep-27	5609-SWD, Hol, TDay, Xmas, WC, Ovr	1 S2-AF6a-FW-Install Gables/Bents/Bent Caps/Posts/Stingers
CON-48211	S2-AF6a-FW-Remove falsework	5	04-May-27	10-May-27	5609-SWD, Hol, TDay, Xmas, WC, Ovr	1 S2-AF6a-FW-Remove falsework
Const | S1 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr-A-F6a | Sup		10	03-Sep-26	17-Sep-26		1 S2-AF6a-FW-Install Gables/Bents/Bent Caps/Posts/Stingers
CON-25180	S2-AF6a-S&S-Install Soft & Safety Rail	12	11-Sep-26	28-Sep-26	5609-SWD, Hol	1 S2-AF6a-S&S-Install Soft & Safety Rail
CON-25190	S2-AF6a-S&S-Form Exterior Gider & OH	2	17-Sep-26	18-Sep-26	5609-SWD, Hol	1 S2-AF6a-S&S-Form Exterior Gider & OH
CON-25210	S2-AF6a-S&S-Place Soft Rebar	5	21-Sep-26	25-Sep-26	5609-SWD, Hol	1 S2-AF6a-S&S-Place Soft Rebar
CON-25220	S2-AF6a-S&S-Place Stem Rebar	4	24-Sep-26	29-Sep-26	5609-SWD, Hol	1 S2-AF6a-S&S-Place Stem Rebar
CON-25230	S2-AF6a-S&S-Install PT Ducts	11	30-Sep-26	14-Oct-26	5609-SWD, Hol	1 S2-AF6a-S&S-Install PT Ducts
CON-25200	S2-AF6a-S&S-Form Interior Gider & Walkways	3	15-Oct-26	19-Oct-26	5609-SWD, Hol	1 S2-AF6a-S&S-Form Interior Gider & Walkways
CON-25270	S2-AF6a-S&S-Form Diaphragms & Blockouts					1 S2-AF6a-S&S-Form Diaphragms & Blockouts

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar	
CON-25240	S2 - A-F6a - S&S - Place Soffit & Stem Concrete		21-Oct-26	21-Oct-26	5609 - SWD, Hol	S2 - A-F6a - S&S - Place Soffit & Stem Concrete
CON-25250	S2 - A-F6a - S&S - Cure Soffit & Stem Concrete		22-Oct-26	28-Oct-26	5609 - TCD [P]	S2 - A-F6a - S&S - Cure Soffit & Stem Concrete
CON-25260	S2 - A-F6a - S&S - Strip Interior Gider Forms & Walkways		5-Oct-26	28-Oct-26	5609 - SWD, Hol	S2 - A-F6a - S&S - Strip Interior Gider Forms & Walkways
CON-25280	S2 - A-F6a - S&S - Strip Diaphragms		27-Oct-26	30-Oct-26	5609 - SWD, Hol	S2 - A-F6a - S&S - Strip Diaphragms
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | Sup | Deck						28-Oct-26, Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | Sup | Deck
CON-25290	S2 - A-F6a - DECK - Form Lost Deck		8-Nov-26	12-Nov-26	5609 - SWD, Hol	S2 - A-F6a - DECK - Form Lost Deck
CON-25310	S2 - A-F6a - DECK - Form EOD		5-Nov-26	19-Nov-26	5609 - SWD, Hol	S2 - A-F6a - DECK - Form EOD
CON-25320	S2 - A-F6a - DECK - Install Soread Rails & Run-Offs		5-Nov-26	23-Nov-26	5609 - SWD, Hol	S2 - A-F6a - DECK - Install Soread Rails & Run-Offs
CON-25300	S2 - A-F6a - DECK - Place Deck Rebar		5-Nov-26	01-Dec-26	5609 - SWD, Hol	S2 - A-F6a - DECK - Place Deck Rebar
CON-25330	S2 - A-F6a - DECK - Set-up Bridge Finishing Machine & Work Bridges		1-Nov-26	24-Nov-26	5609 - SWD, Hol	S2 - A-F6a - DECK - Set-up Bridge Finishing Machine & Work Bridges
CON-25360	S2 - A-F6a - DECK - Dry-run Bridge Finishing Machine		1-Dec-26	02-Dec-26	5609 - SWD, Hol	S2 - A-F6a - DECK - Dry-run Bridge Finishing Machine
CON-25340	S2 - A-F6a - DECK - Place Bridge Deck Concrete		1-Dec-26	03-Dec-26	5609 - SWD, Hol	S2 - A-F6a - DECK - Place Bridge Deck Concrete
CON-25390	S2 - A-F6a - DECK - Cure Bridge Deck Concrete		7-Dec-26	10-Dec-26	5609 - TCD [P]	S2 - A-F6a - DECK - Cure Bridge Deck Concrete
CON-25370	S2 - A-F6a - DECK - Strip Soread Rails & EOD		2-Dec-26	15-Dec-26	5609 - SWD, Hol	S2 - A-F6a - DECK - Strip Soread Rails & EOD
CON-25380	S2 - A-F6a - DECK - Strip CJ Bulbheads		1-Dec-26	16-Dec-26	5609 - SWD, Hol	S2 - A-F6a - DECK - Strip CJ Bulbheads
CON-25420	S2 - A-F6a - DECK - Strip Exterior Gider & OH Forms		6-Dec-26	26-Dec-26	5609 - SWD, Hol	S2 - A-F6a - DECK - Strip Exterior Gider & OH Forms
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | F & S						17-May-27, Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | F & S
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | F & S | Bent A-B19						15-Apr-26, Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | F & S | Bent A-B19
CON-23700	S2 - A-F6b - A-B19 - Prep Work Pad for Type 2 Shaft		1-Feb-26	08-Feb-26	5609 - SWD, Hol	S2 - A-F6b - A-B19 - Prep Work Pad for Type 2 Shaft
CON-23710	S2 - A-F6b - A-B19 - Install CICH Shaft(s)		15-Mar-26	15-Mar-26	5609 - TCD [P]	S2 - A-F6b - A-B19 - Install CICH Shaft(s)
CON-23720	S2 - A-F6b - A-B19 - Cure Shaft		17-Mar-26	23-Mar-26	5609 - TCD [P]	S2 - A-F6b - A-B19 - Cure Shaft
CON-51991	S2 - A-F6b - A-B19 - Excavate for Isolation Casing & Trim Soil Casing		2-Mar-26	18-Mar-26	5609 - SWD, Hol	S2 - A-F6b - A-B19 - Excavate for Isolation Casing & Trim Soil Casing
CON-23730	S2 - A-F6b - A-B19 - Prep Transition Zone/Set Column Cage & Guy		18-Mar-26	24-Mar-26	5609 - SWD, Hol	S2 - A-F6b - A-B19 - Prep Transition Zone/Set Column Cage & Guy
CON-23740	S2 - A-F6b - A-B19 - Place Transition Zone Concrete		25-Mar-26	25-Mar-26	5609 - SWD, Hol	S2 - A-F6b - A-B19 - Place Transition Zone Concrete
CON-23750	S2 - A-F6b - A-B19 - Cure Transition Zone Concrete		25-Mar-26	01-Apr-26	5609 - TCD [P]	S2 - A-F6b - A-B19 - Cure Transition Zone Concrete
CON-23760	S2 - A-F6b - A-B19 - Form Column		30-Mar-26	30-Mar-26	5609 - SWD, Hol	S2 - A-F6b - A-B19 - Form Column
CON-23770	S2 - A-F6b - A-B19 - Connect Thermal Control System		31-Mar-26	31-Mar-26	5609 - SWD, Hol	S2 - A-F6b - A-B19 - Connect Thermal Control System
CON-23780	S2 - A-F6b - A-B19 - Place Column Concrete		02-Apr-26	02-Apr-26	5609 - SWD, Hol	S2 - A-F6b - A-B19 - Place Column Concrete
CON-23790	S2 - A-F6b - A-B19 - Cure Column Concrete		7-Apr-26	09-Apr-26	5609 - TCD [P]	S2 - A-F6b - A-B19 - Cure Column Concrete
CON-23800	S2 - A-F6b - A-B19 - Strip Column Forms 1 Day Minimum Removal		10-Apr-26	10-Apr-26	5609 - SWD, Hol	S2 - A-F6b - A-B19 - Strip Column Forms 1 Day Minimum Removal
CON-51701	S2 - A-F6b - A-B19 - Install Isolation Casing & Backfill		13-Apr-26	15-Apr-26	5609 - SWD, Hol	S2 - A-F6b - A-B19 - Install Isolation Casing & Backfill
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | Sup | Deck						17-May-27, Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | Sup | Deck
CON-25440	S2 - A-F6b - FW - Install Girders/Bents/Bent Caps/Posts/Strangers		5-Apr-26	22-Apr-26	5609 - SWD, Hol	S2 - A-F6b - FW - Install Girders/Bents/Bent Caps/Posts/Strangers
CON-48241	S2 - A-F6b - FW - Remove Falsework		5-May-27	17-May-27	5609 - SWD, Hol	S2 - A-F6b - FW - Remove Falsework
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | Sup | Soil & Stone						25-Apr-26, Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | Sup | Soil & Stone
CON-25450	S2 - A-F6b - S&S - Install Soffit & Safety Rail		12-Apr-26	08-May-26	5609 - SWD, Hol	S2 - A-F6b - S&S - Install Soffit & Safety Rail
CON-25460	S2 - A-F6b - S&S - Form Exterior Gider & OH		18-May-26	02-Jun-26	5609 - SWD, Hol	S2 - A-F6b - S&S - Form Exterior Gider & OH
CON-25480	S2 - A-F6b - S&S - Place Soffit Rebar		8-May-26	27-May-26	5609 - SWD, Hol	S2 - A-F6b - S&S - Place Soffit Rebar
CON-25490	S2 - A-F6b - S&S - Place Stem Rebar		8-May-26	08-Jun-26	5609 - SWD, Hol	S2 - A-F6b - S&S - Place Stem Rebar
CON-25500	S2 - A-F6b - S&S - Install PT Ducts		4-Jun-26	10-Jun-26	5609 - SWD, Hol	S2 - A-F6b - S&S - Install PT Ducts
CON-25470	S2 - A-F6b - S&S - Form Interior Gider & Walkways		15-Jun-26	01-Jul-26	5609 - SWD, Hol	S2 - A-F6b - S&S - Form Interior Gider & Walkways
CON-25540	S2 - A-F6b - S&S - Form Diaphragms & Blockouts		3-Jul-26	07-Jul-26	5609 - SWD, Hol	S2 - A-F6b - S&S - Form Diaphragms & Blockouts
CON-25510	S2 - A-F6b - S&S - Place Soffit & Stem Concrete		2-Jul-26	09-Jul-26	5609 - SWD, Hol	S2 - A-F6b - S&S - Place Soffit & Stem Concrete
CON-25520	S2 - A-F6b - S&S - Cure Soffit & Stem Concrete		7-Jul-26	16-Jul-26	5609 - TCD [P]	S2 - A-F6b - S&S - Cure Soffit & Stem Concrete
CON-25530	S2 - A-F6b - S&S - Strip Interior Gider Forms & Walkways		7-Jul-26	20-Jul-26	5609 - SWD, Hol	S2 - A-F6b - S&S - Strip Interior Gider Forms & Walkways
CON-25550	S2 - A-F6b - S&S - Strip Diaphragms		21-Jul-26	22-Jul-26	5609 - SWD, Hol	S2 - A-F6b - S&S - Strip Diaphragms
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | Sup | Deck						17-May-27, Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | Sup | Deck
CON-25560	S2 - A-F6b - DECK - Form Lost Deck		10-Jul-26	05-Aug-26	5609 - SWD, Hol	S2 - A-F6b - DECK - Form Lost Deck
CON-25580	S2 - A-F6b - DECK - Form EOD		7-Aug-26	14-Aug-26	5609 - SWD, Hol	S2 - A-F6b - DECK - Form EOD
CON-25590	S2 - A-F6b - DECK - Install Soread Rails & Run-Offs		8-Aug-26	18-Aug-26	5609 - SWD, Hol	S2 - A-F6b - DECK - Install Soread Rails & Run-Offs
CON-25570	S2 - A-F6b - DECK - Place Deck Rebar		8-Aug-26	29-Aug-26	5609 - SWD, Hol	S2 - A-F6b - DECK - Place Deck Rebar
CON-25600	S2 - A-F6b - DECK - Set-up Bridge Finishing Machine & Work Bridges		1-Aug-26	18-Aug-26	5609 - SWD, Hol	S2 - A-F6b - DECK - Set-up Bridge Finishing Machine & Work Bridges
CON-25630	S2 - A-F6b - DECK - Dry-run Bridge Finishing Machine		1-Aug-26	27-Aug-26	5609 - SWD, Hol	S2 - A-F6b - DECK - Dry-run Bridge Finishing Machine
CON-25610	S2 - A-F6b - DECK - Place Bridge Deck Concrete		17-Dec-26	17-Dec-26	5609 - SWD, Hol	S2 - A-F6b - DECK - Place Bridge Deck Concrete
CON-25620	S2 - A-F6b - DECK - Cure Bridge Deck Concrete		18-Dec-26	24-Dec-26	5609 - TCD [P]	S2 - A-F6b - DECK - Cure Bridge Deck Concrete

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

SKANSKA FLATIRON

ATMP PRELIMINARY CONSTRUCTION SCHEDULE

Update 20-C

Activity ID	Activity Name	Planning	Start	Finish	Calendar
CON-25640	S2-A-FB - DECK - Strip Sanded Rails & EOD		28-Dec-26	29-Dec-26	5609 - SWD, Hol
CON-25651	S2-A-FB - DECK - Strip Ext Gider & OH Forms		7-Dec-26	11-Jan-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6 | Sup | PT			12-Jan-27	21-Jan-27	5609 - SWD, Hol
CON-25390	S2-A-FB - PT - Install PT Strands		4-Jan-27	11-Jan-27	5609 - SWD, Hol
CON-25400	S2-A-FB - PT - Stress & Lockoff		12-Jan-27	14-Jan-27	5609 - SWD, Hol
CON-25410	S2-A-FB - PT - Grout PT Ducts		2-Jan-27	18-Jan-27	5609 - SWD, Hol
CON-25430	S2-A-FB - PT - PPS PT Blockouts		3-Jan-27	21-Jan-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F7 | F & S | Bent A-B20			100-Jan-27	26-Sep-26	
CON-23810	S2-A-F7 - A-B20 - Prep Work Pad For Type 2 Shaft		4-Feb-26	04-Feb-26	5609 - SWD, Hol
CON-23820	S2-A-F7 - A-B20 - Install CIDH Shafts		4-Feb-26	04-Mar-26	5609 - SWD, Hol
CON-23830	S2-A-F7 - A-B20 - Cure Shaft		7-May-26	11-Mar-26	5609 - TCD [P]
CON-23840	S2-A-F7 - A-B20 - Excavate for Isolation Casing & Tilt Slip Casing		25-Mar-26	26-Mar-26	5609 - SWD, Hol
CON-23850	S2-A-F7 - A-B20 - Place Transition Zone Concrete		4-Mar-26	12-Mar-26	5609 - SWD, Hol
CON-23860	S2-A-F7 - A-B20 - Cure Transition Zone Concrete		13-Mar-26	13-Mar-26	5609 - TCD [P]
CON-23870	S2-A-F7 - A-B20 - Form Column		14-Mar-26	20-Mar-26	5609 - SWD, Hol
CON-23880	S2-A-F7 - A-B20 - Connect Thermal Control System		16-Mar-26	18-Mar-26	5609 - SWD, Hol
CON-23890	S2-A-F7 - A-B20 - Place Column Concrete		19-Mar-26	23-Mar-26	5609 - SWD, Hol
CON-23900	S2-A-F7 - A-B20 - Cure Column Concrete		23-Mar-26	30-Mar-26	5609 - TCD [P]
CON-23910	S2-A-F7 - A-B20 - Strip Column Forms 1 Day Minimum Removal		31-Mar-26	31-Mar-26	5609 - SWD, Hol
CON-23920	S2-A-F7 - A-B20 - Install Isolation Casing & Backfill		3-Apr-26	03-Apr-26	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F7 | F & S | Bent A-B21			14-Nov-25	14-Nov-25	
CON-24030	S2-A-F7 - A-B21 - Prep Work Pad For Type 2 Shaft		14-Nov-25	14-Nov-25	5609 - SWD, Hol
CON-24040	S2-A-F7 - A-B21 - Install CIDH Shafts		17-Feb-26	20-Feb-26	5609 - SWD, Hol
CON-24050	S2-A-F7 - A-B21 - Cure Shaft		7-Feb-26	27-Feb-26	5609 - TCD [P]
CON-24060	S2-A-F7 - A-B21 - Prep Transition Zone/Column Casing & Guy		23-Feb-26	28-Feb-26	5609 - SWD, Hol
CON-24070	S2-A-F7 - A-B21 - Place Transition Zone Concrete		2-Mar-26	02-Mar-26	5609 - SWD, Hol
CON-24080	S2-A-F7 - A-B21 - Cure Transition Zone Concrete		3-Mar-26	09-Mar-26	5609 - TCD [P]
CON-24090	S2-A-F7 - A-B21 - Form Column		10-Mar-26	05-Mar-26	5609 - SWD, Hol
CON-24100	S2-A-F7 - A-B21 - Connect Thermal Control System		6-Mar-26	06-Mar-26	5609 - SWD, Hol
CON-24110	S2-A-F7 - A-B21 - Place Column Concrete		10-Mar-26	10-Mar-26	5609 - SWD, Hol
CON-24120	S2-A-F7 - A-B21 - Cure Column Concrete		11-Mar-26	17-Mar-26	5609 - TCD [P]
CON-24130	S2-A-F7 - A-B21 - Strip Column Forms 1 Day Minimum Removal		18-Mar-26	18-Mar-26	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F7 | F & S | Bent A-B22			10-Aug-26	09-Sep-26	
CON-23920	S2-A-F7 - A-B22 - Prep Work Pad For Type 2 Shaft		10-Aug-26	10-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Qy
CON-23930	S2-A-F7 - A-B22 - Install CIDH Shafts		11-Aug-26	14-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Qy
CON-23940	S2-A-F7 - A-B22 - Cure Shaft		15-Aug-26	21-Aug-26	5609 - TCD [P]
CON-23950	S2-A-F7 - A-B22 - Prep Transition Zone/Column Casing & Guy		17-Aug-26	20-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Qy
CON-23960	S2-A-F7 - A-B22 - Place Transition Zone Concrete		24-Aug-26	24-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Qy
CON-23970	S2-A-F7 - A-B22 - Cure Transition Zone Concrete		25-Aug-26	31-Aug-26	5609 - TCD [P]
CON-23980	S2-A-F7 - A-B22 - Form Column		25-Aug-26	27-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Qy
CON-23990	S2-A-F7 - A-B22 - Connect Thermal Control System		28-Aug-26	28-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Qy
CON-24000	S2-A-F7 - A-B22 - Place Column Concrete		1-Sep-26	01-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Qy
CON-24010	S2-A-F7 - A-B22 - Cure Column Concrete		2-Sep-26	08-Sep-26	5609 - TCD [P]
CON-24020	S2-A-F7 - A-B22 - Strip Column Forms 1 Day Minimum Removal		9-Sep-26	09-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Qy
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F7 | Sup | FW			06-Apr-26	26-May-27	
CON-25710	S2-A-F7 - FW - Install Grillage/Bent/Bent Caps/Posts - North of Century		10-Apr-26	10-Apr-26	5609 - SWD, Hol
CON-51011	S2-A-F7 - FW - Install Grillage/Bent/Bent Caps/Posts - Over WB Century		10-Sep-26	17-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Qy
CON-51021	S2-A-F7 - FW - Remove Falsework - Over WB Century		17-May-27	20-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Qy
CON-48291	S2-A-F7 - FW - Remove Falsework - North of Century		21-May-27	26-May-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F7 | Sup | Soff & Sams			13-Apr-26	08-Jun-27	
CON-51020	S2-A-F7 - S&S - Install Soffit & Safety Rail - North of Century		13-Apr-26	21-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Qy
CON-51031	S2-A-F7 - S&S - Install Soffit & Safety Rail - Over WB Century		18-Sep-26	01-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Qy
CON-25770	S2-A-F7 - S&S - Form Exterior Gider & OH		24-Sep-26	15-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Qy

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Page 50 of 118

ATMP Rdwy Imp | Baseline Schedule | UP20 - Partial Relief of
FIFA FW Over Sep / Cent

Activity ID	Activity Name	meaning	Start	Finish	Calendar		
CON-25780	S2-A-F7-S&S-Place Soffit Rebar		8	09-Oct-26	20-Oct-26	5609-SWD, Hol	1: S2-A-F7-S&S-Place Soffit Rebar
CON-25790	S2-A-F7-S&S-Place Stem Rebar		8	15-Oct-26	26-Oct-26	5609-SWD, Hol	2: S2-A-F7-S&S-Place Stem Rebar
CON-25800	S2-A-F7-S&S-Install PT Ducts		3	27-Oct-26	29-Oct-26	5609-SWD, Hol	3: S2-A-F7-S&S-Install PT Ducts
CON-25810	S2-A-F7-S&S-Form Interior Gider & Walkways		22	30-Oct-26	03-Dec-26	5609-SWD, Hol	4: S2-A-F7-S&S-Form Interior Gider & Walkways
CON-25820	S2-A-F7-S&S-Form Diaphragms & Blockouts		10	25-Nov-26	14-Dec-26	5609-SWD, Hol	5: S2-A-F7-S&S-Form Diaphragms & Blockouts
CON-25730	S2-A-F7-S&S-Place Soffit & Stem Concrete		2	16-Dec-26	15-Dec-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	6: S2-A-F7-S&S-Place Soffit & Stem Concrete
CON-25740	S2-A-F7-S&S-Cure Soffit & Stem Concrete		7	17-Dec-26	23-Dec-26	5609-TCO [P]	7: S2-A-F7-S&S-Cure Soffit & Stem Concrete
CON-25750	S2-A-F7-S&S-Strip Interior Gider Forms & Walkways		8	17-Dec-26	05-Jan-27	5609-SWD, Hol	8: S2-A-F7-S&S-Strip Interior Gider Forms & Walkways
CON-25760	S2-A-F7-S&S-Strip Diaphragms		6	30-Dec-26	08-Jan-27	5609-SWD, Hol	9: S2-A-F7-S&S-Strip Diaphragms
Const [S12] Sep Access [Seg A] Bridge Sta 20+50 to Sta 51+96 [Fr A-F7] Sup [Deck]							10: 10-Jan-27, Const [S12] Sep Access [Seg A] Bridge Sta 20+50 to Sta 51+96 [Fr A-F7] Sup [Deck]
CON-25830	S2-A-F7-DECK-Form Lost Deck		12	11-Jan-27	26-Jan-27	5609-SWD, Hol	11: S2-A-F7-DECK-Form Lost Deck
CON-25850	S2-A-F7-DECK-Form EDD		7	27-Jan-27	04-Feb-27	5609-SWD, Hol	12: S2-A-F7-DECK-Form EDD
CON-25860	S2-A-F7-DECK-Install Scribed Rails & Run-Offs		9	28-Jan-27	09-Feb-27	5609-SWD, Hol	13: S2-A-F7-DECK-Install Scribed Rails & Run-Offs
CON-25940	S2-A-F7-DECK-Place Deck Rebar		8	35-Feb-27	17-Feb-27	5609-SWD, Hol	14: S2-A-F7-DECK-Place Deck Rebar
CON-25870	S2-A-F7-DECK-Set-Up Bridge Finishing Machine & Work Bridges		1	10-Feb-27	10-Feb-27	5609-SWD, Hol	15: S2-A-F7-DECK-Set-Up Bridge Finishing Machine & Work Bridges
CON-25900	S2-A-F7-DECK-Dryrun Bridge Finishing Machine		1	18-Feb-27	18-Feb-27	5609-SWD, Hol	16: S2-A-F7-DECK-Dryrun Bridge Finishing Machine
CON-25880	S2-A-F7-DECK-Place Bridge Deck Concrete		1	19-Feb-27	19-Feb-27	5609-SWD, Hol, TDay, Xmas, WC, Oly	17: S2-A-F7-DECK-Place Bridge Deck Concrete
CON-25890	S2-A-F7-DECK-Cure Bridge Deck Concrete		7	20-Feb-27	26-Feb-27	5609-TCO [P]	18: S2-A-F7-DECK-Cure Bridge Deck Concrete
CON-25910	S2-A-F7-DECK-Strip Scribed Rails & EDD		3	01-Mar-27	33-Mar-27	5609-SWD, Hol	19: S2-A-F7-DECK-Strip Scribed Rails & EDD
CON-25921	S2-A-F7-DECK-Strip Ed Gider & OH Forms		10	03-Mar-27	16-Mar-27	5609-SWD, Hol, TDay, Xmas, WC, Oly	20: S2-A-F7-DECK-Strip Ed Gider & OH Forms
Const [S12] Sep Access [Seg A] Bridge Sta 20+50 to Sta 51+96 [Fr A-F7] Sup [PT]							21: 26-Mar-27, Const [S12] Sep Access [Seg A] Bridge Sta 20+50 to Sta 51+96 [Fr A-F7] Sup [PT]
CON-48251	S2-A-F7-PT-Install PT Stands		4	11-Mar-27	18-Mar-27	5609-SWD, Hol	22: S2-A-F7-PT-Install PT Stands
CON-48261	S2-A-F7-PT-Struss & Lockoff		3	17-Mar-27	18-Mar-27	5609-SWD, Hol	23: S2-A-F7-PT-Struss & Lockoff
CON-48271	S2-A-F7-PT-Gout PT Ducts		2	23-Mar-27	23-Mar-27	5609-SWD, Hol	24: S2-A-F7-PT-Gout PT Ducts
CON-48281	S2-A-F7-PT-PPPS PT Blockouts		3	24-Mar-27	28-Mar-27	5609-SWD, Hol	25: S2-A-F7-PT-PPPS PT Blockouts
Const [S12] Sep Access [Seg A] Bridge Sta 20+50 to Sta 51+96 [Fr A-F8]							26: 27-Mar-27, Const [S12] Sep Access [Seg A] Bridge Sta 20+50 to Sta 51+96 [Fr A-F8]
Const [S12] Sep Access [Seg A] Bridge Sta 20+50 to Sta 51+96 [Fr A-F8] [F & S] Bent A-B23							27: 01-Apr-27, Const [S12] Sep Access [Seg A] Bridge Sta 20+50 to Sta 51+96 [Fr A-F8] [F & S] Bent A-B23
CON-24140	S2-A-F8-A-B23-Prep Work Pad For Type 2 Shaft		1	30-Jul-26	30-Jul-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	28: S2-A-F8-A-B23-Prep Work Pad For Type 2 Shaft
CON-24150	S2-A-F8-A-B23-Install CIDH Shaft(s)		4	04-Aug-26	07-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	29: S2-A-F8-A-B23-Install CIDH Shaft(s)
CON-24160	S2-A-F8-A-B23-Cure Shaft		7	08-Aug-26	14-Aug-26	5609-TCO [P]	30: S2-A-F8-A-B23-Cure Shaft
CON-24170	S2-A-F8-A-B23-Prep Transition Zone/Set Column Cage & Guy		4	10-Aug-26	13-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	31: S2-A-F8-A-B23-Prep Transition Zone/Set Column Cage & Guy
CON-24180	S2-A-F8-A-B23-Place Transition Zone Concrete		1	17-Aug-26	17-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	32: S2-A-F8-A-B23-Place Transition Zone Concrete
CON-24190	S2-A-F8-A-B23-Cure Transition Zone Concrete		7	18-Aug-26	24-Aug-26	5609-TCO [P]	33: S2-A-F8-A-B23-Cure Transition Zone Concrete
CON-24200	S2-A-F8-A-B23-Form Column		9	18-Aug-26	20-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	34: S2-A-F8-A-B23-Form Column
CON-24210	S2-A-F8-A-B23-Connect Thermal Control System		1	21-Aug-26	21-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	35: S2-A-F8-A-B23-Connect Thermal Control System
CON-24220	S2-A-F8-A-B23-Place Column Concrete		1	25-Aug-26	25-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	36: S2-A-F8-A-B23-Place Column Concrete
CON-24230	S2-A-F8-A-B23-Cure Column Concrete		7	28-Aug-26	01-Sep-26	5609-TCO [P]	37: S2-A-F8-A-B23-Cure Column Concrete
CON-24240	S2-A-F8-A-B23-Strip Column Forms 1 Day Minimum Removal		1	02-Sep-26	02-Sep-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	38: S2-A-F8-A-B23-Strip Column Forms 1 Day Minimum Removal
Const [S12] Sep Access [Seg A] Bridge Sta 20+50 to Sta 51+96 [Fr A-F8] [F & S] Bent A-B24							39: 06-Sep-26, Const [S12] Sep Access [Seg A] Bridge Sta 20+50 to Sta 51+96 [Fr A-F8] [F & S] Bent A-B24
CON-31470	S2-A-F8-A-B24-Prep Work Pad For Type 2 Shaft		1	31-Jul-26	31-Jul-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	40: S2-A-F8-A-B24-Prep Work Pad For Type 2 Shaft
CON-31480	S2-A-F8-A-B24-Install CIDH Shaft(s)		4	07-Aug-26	12-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	41: S2-A-F8-A-B24-Install CIDH Shaft(s)
CON-31490	S2-A-F8-A-B24-Cure Shaft		7	13-Aug-26	19-Aug-26	5609-TCO [P]	42: S2-A-F8-A-B24-Cure Shaft
CON-31500	S2-A-F8-A-B24-Prep Transition Zone/Set Column Cage & Guy		4	13-Aug-26	18-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	43: S2-A-F8-A-B24-Prep Transition Zone/Set Column Cage & Guy
CON-31510	S2-A-F8-A-B24-Place Transition Zone Concrete		1	20-Aug-26	20-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	44: S2-A-F8-A-B24-Place Transition Zone Concrete
CON-31520	S2-A-F8-A-B24-Cure Transition Zone Concrete		7	21-Aug-26	27-Aug-26	5609-TCO [P]	45: S2-A-F8-A-B24-Cure Transition Zone Concrete
CON-31530	S2-A-F8-A-B24-Form Column		3	21-Aug-26	25-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	46: S2-A-F8-A-B24-Form Column
CON-31570	S2-A-F8-A-B24-Connect Thermal Control System		1	28-Aug-26	26-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	47: S2-A-F8-A-B24-Connect Thermal Control System
CON-31540	S2-A-F8-A-B24-Place Column Concrete		1	28-Aug-26	28-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	48: S2-A-F8-A-B24-Place Column Concrete
CON-31550	S2-A-F8-A-B24-Cure Column Concrete		7	29-Aug-26	04-Sep-26	5609-TCO [P]	49: S2-A-F8-A-B24-Cure Column Concrete
CON-31580	S2-A-F8-A-B24-Strip Column Forms 1 Day Minimum Removal		1	06-Sep-26	06-Sep-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	50: S2-A-F8-A-B24-Strip Column Forms 1 Day Minimum Removal
Const [S12] Sep Access [Seg A] Bridge Sta 20+50 to Sta 51+96 [Fr A-F8] [F & S] Bent A-B25							51: 07-Sep-26, Const [S12] Sep Access [Seg A] Bridge Sta 20+50 to Sta 51+96 [Fr A-F8] [F & S] Bent A-B25
CON-31580	S2-A-F8-A-B25-Prep Work Pad For Type 2 Shaft		1	12-Aug-26	12-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	52: S2-A-F8-A-B25-Prep Work Pad For Type 2 Shaft
CON-31590	S2-A-F8-A-B25-Install CIDH Shaft(s)		4	13-Aug-26	18-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	53: S2-A-F8-A-B25-Install CIDH Shaft(s)
CON-31600	S2-A-F8-A-B25-Cure Shaft		7	19-Aug-26	25-Aug-26	5609-TCO [P]	54: S2-A-F8-A-B25-Cure Shaft
CON-52051	S2-A-F8-A-B25-Excavate for Isolation Casing & Shim Slip Casing		2	19-Aug-26	20-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	55: S2-A-F8-A-B25-Excavate for Isolation Casing & Shim Slip Casing
CON-31610	S2-A-F8-A-B25-Prep Transition Zone/Set Column Cage & Guy		4	21-Aug-26	26-Aug-26	5609-SWD, Hol, TDay, Xmas, WC, Oly	56: S2-A-F8-A-B25-Prep Transition Zone/Set Column Cage & Guy

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Comments	Summary
CON-31620	S2-AFB-A-B25 - Place Transition Zone Concrete	1	27-Aug-26	27-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-A-B25 - Place Transition Zone Concrete
CON-31630	S2-AFB-A-B25 - Cure Transition Zone Concrete	7	28-Aug-26	03-Sep-26	5609 - TCD [P]	S2-AFB-A-B25 - Cure Transition Zone Concrete
CON-31640	S2-AFB-A-B25 - Form Column	3	28-Aug-26	01-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-A-B25 - Form Column
CON-31680	S2-AFB-A-B25 - Connect Thermal Control System	1	02-Sep-26	02-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-A-B25 - Connect Thermal Control System
CON-31690	S2-AFB-A-B25 - Place Column Concrete	1	04-Sep-26	04-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-A-B25 - Place Column Concrete
CON-31690	S2-AFB-A-B25 - Cure Column Concrete	7	05-Sep-26	11-Sep-26	5609 - TCD [P]	S2-AFB-A-B25 - Cure Column Concrete
CON-31670	S2-AFB-A-B25 - Strip Column Forms 1 Day Minimum Removal	1	14-Sep-26	14-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-A-B25 - Strip Column Forms 1 Day Minimum Removal
CON-52061	S2-AFB-A-B25 - Install Isolation Coating & Backfill	3	15-Sep-26	17-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-A-B25 - Install Isolation Coating & Backfill
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr-A-F8 | F & S | Abut A-A26		56	16-May-26	04-Jun-26		S2-AFB-A-A26 - Install SDE for Wind A-3 & A-A26
CON-46730	S2-AFB-AA26 - Install SDE for Wind A-3 & A-A26	10	16-May-26	01-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Install SDE for Wind A-3 & A-A26
CON-16960	S2-AFB-AA26 - Prep Work Pad For CIDH	1	10-Aug-26	10-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Prep Work Pad For CIDH
CON-17150	S2-AFB-AA26 - Install CIDH Shells	7	11-Aug-26	19-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Install CIDH Shells
CON-17310	S2-AFB-AA26 - Excavate Footing	4	20-Aug-26	25-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Excavate Footing
CON-17320	S2-AFB-AA26 - Cure CIDH	7	20-Aug-26	26-Aug-26	5609 - TCD [P]	S2-AFB-AA26 - Cure CIDH
CON-17580	S2-AFB-AA26 - Prep CIDH for Footing Construction	3	26-Aug-26	28-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Prep CIDH for Footing Construction
CON-17710	S2-AFB-AA26 - Form Footing/Dowel Template	3	31-Aug-26	02-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Form Footing/Dowel Template
CON-17500	S2-AFB-AA26 - Place Rebar	3	03-Sep-26	05-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Place Rebar
CON-18080	S2-AFB-AA26 - Place Footing Concrete	1	09-Sep-26	09-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Place Footing Concrete
CON-18120	S2-AFB-AA26 - Cure Footing Concrete	7	10-Sep-26	16-Sep-26	5609 - TCD [P]	S2-AFB-AA26 - Cure Footing Concrete
CON-18130	S2-AFB-AA26 - Strip Footing Forms/Dowel Template	1	10-Sep-26	10-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Strip Footing Forms/Dowel Template
CON-18200	S2-AFB-AA26 - Blast/Prep For Stems & Wings	1	11-Sep-26	11-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Blast/Prep For Stems & Wings
CON-18230	S2-AFB-AA26 - Form 1S Stems/Wings/Backwall	3	14-Sep-26	16-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Form 1S Stems/Wings/Backwall
CON-18330	S2-AFB-AA26 - Place Stem & Wing Rebar	3	17-Sep-26	21-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Place Stem & Wing Rebar
CON-18490	S2-AFB-AA26 - Form 2S Stems & Wings	2	23-Sep-26	23-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Form 2S Stems & Wings
CON-18540	S2-AFB-AA26 - Place Stem & Wing Concrete	1	24-Sep-26	24-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Place Stem & Wing Concrete
CON-18510	S2-AFB-AA26 - Cure Stem & Wing Concrete	7	25-Sep-26	31-Oct-26	5609 - TCD [P]	S2-AFB-AA26 - Cure Stem & Wing Concrete
CON-18620	S2-AFB-AA26 - Strip Stem & Wing Forms / Rough Surface Finish	2	25-Sep-26	26-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Strip Stem & Wing Forms / Rough Surface Finish
CON-18630	S2-AFB-AA26 - Backfill	1	29-Sep-26	29-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-AA26 - Backfill
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr-A-F8 | Sup		177	03-Sep-26	26-May-27		S2-AFB-AA26 - Strip Stem & Wing Forms / Rough Surface Finish
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr-A-F8 | Sup | FW		167	03-Sep-26	26-May-27		S2-AFB-AA26 - Strip Stem & Wing Forms / Rough Surface Finish
CON-25930	S2-AFB-FW - Install Gillage/Bent/Bent Caps/Posts/Stingers - Over WB Century	3	03-Sep-26	05-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-FW - Install Gillage/Bent/Bent Caps/Posts/Stingers - Over WB Century
CON-51041	S2-AFB-FW - Install Gillage/Bent/Bent Caps/Posts/Stingers - So of Century	5	29-Sep-26	09-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-FW - Install Gillage/Bent/Bent Caps/Posts/Stingers - So of Century
CON-48301	S2-AFB-FW - Remove Falsework - Over WB Century	2	17-May-27	18-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-FW - Remove Falsework - Over WB Century
CON-51051	S2-AFB-FW - Remove Falsework - So of Century	5	19-May-27	26-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-FW - Remove Falsework - So of Century
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr-A-F8 | Sup | Soft & Stms		90	09-Sep-26	26-Jun-27		S2-AFB-S&S - Install Soft & Safety Rail - Over WB Century
CON-25930	S2-AFB-S&S - Install Soft & Safety Rail - Over WB Century	8	09-Sep-26	18-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-S&S - Install Soft & Safety Rail - Over WB Century
CON-54321	S2-AFB-S&S - Install Elastic/Steel Bearing Pads @ AA26	1	21-Sep-26	24-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-S&S - Install Elastic/Steel Bearing Pads @ AA26
CON-51061	S2-AFB-S&S - Install Soft & Safety Rail - So of Century	8	08-Oct-26	19-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-S&S - Install Soft & Safety Rail - So of Century
CON-25950	S2-AFB-S&S - Form Exterior Gider & OH	15	08-Oct-26	28-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-S&S - Form Exterior Gider & OH
CON-25970	S2-AFB-S&S - Place Soffit Rebar	9	29-Oct-26	10-Nov-26	5609 - SWD, Hol	S2-AFB-S&S - Place Soffit Rebar
CON-25980	S2-AFB-S&S - Place Stem Rebar	9	12-Nov-26	24-Nov-26	5609 - SWD, Hol	S2-AFB-S&S - Place Stem Rebar
CON-25990	S2-AFB-S&S - Install PT Ducts	4	23-Nov-26	30-Nov-26	5609 - SWD, Hol	S2-AFB-S&S - Install PT Ducts
CON-25960	S2-AFB-S&S - Form Interior Gider & Walkways	15	01-Dec-26	28-Dec-26	5609 - SWD, Hol	S2-AFB-S&S - Form Interior Gider & Walkways
CON-26030	S2-AFB-S&S - Form Diaphragms & Blockouts	5	29-Dec-26	06-Jan-27	5609 - SWD, Hol	S2-AFB-S&S - Form Diaphragms & Blockouts
CON-26000	S2-AFB-S&S - Place Soffit & Stem Concrete	2	07-Jan-27	09-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-S&S - Place Soffit & Stem Concrete
CON-26010	S2-AFB-S&S - Cure Soffit & Stem Concrete	7	09-Jan-27	15-Jan-27	5609 - TCD [P]	S2-AFB-S&S - Cure Soffit & Stem Concrete
CON-26020	S2-AFB-S&S - Strip Interior Gider Forms & Walkways	8	11-Jan-27	20-Jan-27	5609 - SWD, Hol	S2-AFB-S&S - Strip Interior Gider Forms & Walkways
CON-26040	S2-AFB-S&S - Strip Diaphragms	4	21-Jan-27	26-Jan-27	5609 - SWD, Hol	S2-AFB-S&S - Strip Diaphragms
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr-A-F8 | Sup | Deck		10	27-Jan-27	09-Feb-27		S2-AFB-DECK - Form Lost Deck
CON-26050	S2-AFB-DECK - Form Lost Deck	10	27-Jan-27	09-Feb-27	5609 - SWD, Hol	S2-AFB-DECK - Form Lost Deck
CON-26070	S2-AFB-DECK - Form EOG	8	10-Feb-27	22-Feb-27	5609 - SWD, Hol	S2-AFB-DECK - Form EOG
CON-26080	S2-AFB-DECK - Install Soffit Ribs & Run-Offs	10	11-Feb-27	26-Feb-27	5609 - SWD, Hol	S2-AFB-DECK - Install Soffit Ribs & Run-Offs
CON-26060	S2-AFB-DECK - Place Deck Rebar	8	23-Feb-27	06-Mar-27	5609 - SWD, Hol	S2-AFB-DECK - Place Deck Rebar
CON-26090	S2-AFB-DECK - Setup Bridge Finishing Machine & Work Bridges	1	28-Feb-27	28-Feb-27	5609 - SWD, Hol	S2-AFB-DECK - Setup Bridge Finishing Machine & Work Bridges
CON-26120	S2-AFB-DECK - Dry-run Bridge Finishing Machine	1	08-Mar-27	08-Mar-27	5609 - SWD, Hol	S2-AFB-DECK - Dry-run Bridge Finishing Machine
CON-26100	S2-AFB-DECK - Place Bridge Deck Concrete	1	09-Mar-27	09-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2-AFB-DECK - Place Bridge Deck Concrete
CON-26110	S2-AFB-DECK - Cure Bridge Deck Concrete	7	10-Mar-27	16-Mar-27	5609 - TCD [P]	S2-AFB-DECK - Cure Bridge Deck Concrete

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar	
CON-26130	S2 - A-F8 - DECK - Strip Scribed Rails & EOD		2 17-Mar-27	18-Mar-27	5609 - SWD, Hol	
CON-26180	S2 - A-F8 - DECK - Strip Exterior Girders & OH Forms		6 19-Mar-27	26-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, OY	
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+60 | Sup | PT & BW						
CON-26150	S2 - A-F8 - PT - Install PT Strands		4 23-Mar-27	24-Mar-27	5609 - SWD, Hol	
CON-26160	S2 - A-F8 - PT - Stress & Lock-off		3 24-Mar-27	31-Mar-27	5609 - SWD, Hol	
CON-26170	S2 - A-F8 - PT - Grout PT Ducts		2 01-Apr-27	02-Apr-27	5609 - SWD, Hol	
CON-26180	S2 - A-F8 - PT - RPS PT Blockouts		3 05-Apr-27	07-Apr-27	5609 - SWD, Hol	
CON-31900	S2 - A-F8 - PT - Place Backwall Rebar A-A26		1 09-Apr-27	09-Apr-27	5609 - SWD, Hol	
CON-31910	S2 - A-F8 - PT - Form 2S Backwall A-A26		1 09-Apr-27	09-Apr-27	5609 - SWD, Hol	
CON-31920	S2 - A-F8 - PT - Place Backwall Concrete A-A26		1 12-Apr-27	12-Apr-27	5609 - SWD, Hol	
CON-31930	S2 - A-F8 - PT - Cure Backwall Concrete A-A26		7 13-Apr-27	19-Apr-27	5609 - TCD [P]	
CON-31940	S2 - A-F8 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal A-A26		1 20-Apr-27	20-Apr-27	5609 - SWD, Hol	
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinges						
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F1 / A-F2						
CON-48331	S2 - B-A - A-F1/A-F2 - FRP Hinge Lower Seat		10 23-Mar-27	25-Aug-27	5609 - SWD, Hol	
CON-48311	S2 - B-A - A-F1/A-F2 - FRP Hinge Upper Seat		10 06-Mar-27	19-Aug-27	5609 - SWD, Hol	
CON-48321	S2 - B-A - A-F1/A-F2 - Cure Hinges		10 20-Aug-27	29-Aug-27	5609 - TCD [P]	
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F2 / A-F3						
CON-48361	S2 - B-A - A-F2/A-F3 - FRP Hinge Lower Seat		10 19-Mar-27	01-Apr-27	5609 - SWD, Hol	
CON-48341	S2 - B-A - A-F2/A-F3 - FRP Hinge Upper Seat		10 02-Apr-27	15-Apr-27	5609 - SWD, Hol	
CON-48351	S2 - B-A - A-F2/A-F3 - Cure Hinges		10 18-Apr-27	25-Apr-27	5609 - TCD [P]	
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F2 / F-F1						
CON-48391	S2 - B-A - A-F2/F-F1 - FRP Hinge Lower Seat		10 16-Dec-26	05-Jan-27	5609 - SWD, Hol	
CON-48371	S2 - B-A - A-F2/F-F1 - FRP Hinge Upper Seat		10 08-Jan-27	19-Jan-27	5609 - SWD, Hol	
CON-48381	S2 - B-A - A-F2/F-F1 - Cure Hinges		10 20-Jan-27	29-Jan-27	5609 - TCD [P]	
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F3 / A-F4						
CON-26200	S2 - B-A - A-F3/A-F4 - FRP Hinge Lower Seat		10 19-Mar-27	01-Apr-27	5609 - SWD, Hol	
CON-26210	S2 - B-A - A-F3/A-F4 - FRP Hinge Upper Seat		10 02-Apr-27	15-Apr-27	5609 - SWD, Hol	
CON-26220	S2 - B-A - A-F3/A-F4 - Cure Hinges		10 15-Apr-27	25-Apr-27	5609 - TCD [P]	
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F4 / A-F5						
CON-26230	S2 - B-A - A-F4/A-F5 - FRP Hinge Lower Seat		10 26-Feb-27	11-Mar-27	5609 - SWD, Hol	
CON-26240	S2 - B-A - A-F4/A-F5 - FRP Hinge Upper Seat		10 12-Mar-27	25-Mar-27	5609 - SWD, Hol	
CON-26250	S2 - B-A - A-F4/A-F5 - Cure Hinges		10 25-Mar-27	04-Apr-27	5609 - TCD [P]	
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F4 / C-F1						
CON-26370	S2 - B-A - A-F4/C-F1 - FRP Hinge Lower Seat		10 28-Feb-27	11-Mar-27	5609 - SWD, Hol	
CON-26350	S2 - B-A - A-F4/C-F1 - FRP Hinge Upper Seat		10 12-Mar-27	25-Mar-27	5609 - SWD, Hol	
CON-26360	S2 - B-A - A-F4/C-F1 - Cure Hinges		10 26-Mar-27	04-Apr-27	5609 - TCD [P]	
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F5 / A-F6						
CON-26260	S2 - B-A - A-F5/A-F6 - FRP Hinge Lower Seat		10 22-Jun-27	04-Feb-27	5609 - SWD, Hol	
CON-26270	S2 - B-A - A-F5/A-F6 - FRP Hinge Upper Seat		10 05-Feb-27	18-Feb-27	5609 - SWD, Hol	
CON-26280	S2 - B-A - A-F5/A-F6 - Cure Hinges		10 20-Feb-27	01-Mar-27	5609 - TCD [P]	
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F6 / A-F7						
CON-26320	S2 - B-A - A-F6/A-F7 - FRP Hinge Lower Seat		10 29-Mar-27	09-Apr-27	5609 - SWD, Hol	
CON-26330	S2 - B-A - A-F6/A-F7 - FRP Hinge Upper Seat		10 12-Apr-27	23-Apr-27	5609 - SWD, Hol	
CON-26340	S2 - B-A - A-F6/A-F7 - Cure Hinges		10 24-Apr-27	03-May-27	5609 - TCD [P]	
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F7 / A-F8						
CON-26350	S2 - B-A - A-F7/A-F8 - FRP Hinge Lower Seat		10 08-Apr-27	21-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, OY	
CON-26360	S2 - B-A - A-F7/A-F8 - FRP Hinge Upper Seat		10 22-Apr-27	03-May-27	5609 - SWD, Hol, TDay, Xmas, WC, OY	
CON-26370	S2 - B-A - A-F7/A-F8 - Cure Hinges		10 06-May-27	15-May-27	5609 - TCD [P]	
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Finishes						
Const | S12 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Finishes | Parapet & App Slabs						
CON-31970	S2 - B-A - FRP Approach Slab A-A26		5 23-Mar-27	02-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, OY	
CON-47111	S2 - B-A - FRP Bridge Rail Frames 4 & 5		7 27-Apr-27	05-May-27	5609 - SWD, Hol	
CON-47121	S2 - B-A - FRP Bridge Rail Frame 6		7 11-May-27	19-May-27	5609 - SWD, Hol	
CON-47141	S2 - B-A - FRP Bridge Rail Frame 8		7 20-May-27	28-May-27	5609 - SWD, Hol	
CON-47151	S2 - B-A - FRP Bridge Rail Frame 7		6 24-May-27	01-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, OY	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-20520	S2 - BrA - FRP Bridge Rail Frame 1	5	04-Aug-27	08-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-20530	S2 - BrA - FRP Approach Sub A-A1	5	05-Aug-27	11-Aug-27	5609 - SWD, Hol	
CON-47101	S2 - BrA - FRP Bridge Rail Frames 2 & 3	5	02-Sep-27	14-Sep-27	5609 - SWD, Hol	
Const | S1 | S2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Finishes | Deck Grinding		99	06-May-27	24-Sep-27	5609 - SWD, Hol	
CON-47151	S2 - BrA - Prep Deck & Perform Profilograph Testing Frames 4 & 5 & C-F1	5	06-May-27	12-May-27	5609 - SWD, Hol	
CON-47191	S2 - BrA - Grind & Groove Frames 4 & 5 & C-F1	5	13-May-27	17-May-27	5609 - SWD, Hol	
CON-47171	S2 - BrA - Prep Deck & Perform Profilograph Testing Frames 6, 7 & 8	5	02-Jun-27	08-Jun-27	5609 - SWD, Hol	
CON-47201	S2 - BrA - Grind & Groove Frames 6, 7 & 8	7	09-Jun-27	17-Jun-27	5609 - SWD, Hol	
CON-47151	S2 - BrA - Prep Deck & Perform Profilograph Testing Frames 1, 2 & 3 & F-F1	5	15-Sep-27	21-Sep-27	5609 - SWD, Hol	
CON-47181	S2 - BrA - Grind & Groove Frames 1, 2 & 3 & F-F1	5	22-Sep-27	24-Sep-27	5609 - SWD, Hol	
Const | S1 | S2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Finishes | Exp Jts		77	18-May-27	04-Oct-27		
CON-47261	S2 - BrA - Install Exp Joint Assembly R 3 / F 4	5	18-May-27	20-May-27	5609 - SWD, Hol	
CON-47271	S2 - BrA - Install Exp Joint Assembly R 4 / C-F1	3	21-May-27	25-May-27	5609 - SWD, Hol	
CON-47281	S2 - BrA - Install Exp Joint Assembly About A-A10	3	26-May-27	28-May-27	5609 - SWD, Hol	
CON-47291	S2 - BrA - Install Exp Joint Assembly R 4 / F 5	3	01-Jun-27	03-Jun-27	5609 - SWD, Hol	
CON-47301	S2 - BrA - Install Exp Joint Assembly R 5 / F 6	3	15-Jun-27	22-Jun-27	5609 - SWD, Hol	
CON-47311	S2 - BrA - Install Exp Joint Assembly R 6 / F 7	3	22-Jun-27	24-Jun-27	5609 - SWD, Hol	
CON-47321	S2 - BrA - Install Exp Joint Assembly R 7 / F 8	3	24-Jun-27	28-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-47331	S2 - BrA - Install Exp Joint Assembly About A-A26	3	29-Jun-27	01-Jul-27	5609 - SWD, Hol	
CON-47211	S2 - BrA - Install Exp Joint Assembly About A-A1	3	27-Sep-27	29-Sep-27	5609 - SWD, Hol	
CON-47231	S2 - BrA - Install Exp Joint Assembly R 2 / F 3	3	27-Sep-27	29-Sep-27	5609 - SWD, Hol	
CON-47251	S2 - BrA - Install Exp Joint Assembly About A-A9	3	27-Sep-27	29-Sep-27	5609 - SWD, Hol	
CON-47221	S2 - BrA - Install Exp Joint Assembly R 1 / F 2	3	30-Sep-27	04-Oct-27	5609 - SWD, Hol	
CON-47241	S2 - BrA - Install Exp Joint Assembly R 2 / F-F1	3	30-Sep-27	04-Oct-27	5609 - SWD, Hol	
Const | S1 | S2 | Sep Access | Seg A | Retained Fill Sta 51+96 to Sta 54+75		286	18-May-26	11-May-27		
Const | S1 | S2 | Sep Access | Seg A | Ret Fill Sta 51+96 to Sta 54+75 | Wall A-3 Fill Section		35	14-Mar-27	17-Mar-27		
CON-10840	S2 - Wall A-3 - Excavate for Footing	6	11-Jan-27	18-Jan-27	5609 - SWD, Hol	
CON-10730	S2 - Wall A-3 - Prep Work Pad for CIDH Shafts	4	19-Jan-27	23-Jan-27	5609 - SWD, Hol	
CON-10820	S2 - Wall A-3 - Install CIDH	6	25-Jan-27	31-Feb-27	5609 - SWD, Hol	
CON-10850	S2 - Wall A-3 - Cure CIDH Shafts	7	02-Feb-27	08-Feb-27	5609 - TCD [P]	
CON-10700	S2 - Wall A-3 - Fine Grade Footing	1	05-Feb-27	09-Feb-27	5609 - SWD, Hol	
CON-10720	S2 - Wall A-3 - FRP Footing	3	10-Feb-27	12-Feb-27	5609 - SWD, Hol	
CON-13010	S2 - Wall A-3 - Backfill to Top of Footing	1	16-Feb-27	16-Feb-27	5609 - SWD, Hol	
CON-13020	S2 - Wall A-3 - FRP Panels	4	17-Feb-27	22-Feb-27	5609 - SWD, Hol	
CON-13030	S2 - Wall A-3 - Cure Panels	7	23-Feb-27	01-Mar-27	5609 - TCD [P]	
CON-13040	S2 - Wall A-3 - Strip Panels	2	24-Feb-27	25-Feb-27	5609 - SWD, Hol	
Const | S1 | S2 | Sep Access | Seg A | Ret Fill Sta 51+96 to Sta 54+75 | Wall A-4		211	14-Mar-26	17-Mar-27		
Const | S1 | S2 | Sep Access | Seg A | Ret Fill Sta 51+96 to Sta 54+75 | Wall A-4 - Footing		170	18-Mar-26	18-Nov-26		
CON-10830	S2 - Wall A-4 - Install SOE for Footing	6	18-Mar-26	25-Mar-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-10710	S2 - Wall A-4 - Excavate & Lag for Footing	6	26-Aug-26	02-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-46430	S2 - Wall A-4 - Fig B - Install CIDH Shafts	20	03-Sep-26	01-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-12960	S2 - Wall A-4 - Fig A - Install CIDH Shafts	14	02-Oct-26	21-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-46440	S2 - Wall A-4 - Fig B - Cure CIDH Shafts	7	02-Oct-26	08-Oct-26	5609 - TCD [P]	
CON-46450	S2 - Wall A-4 - Fig B - Fine Grade	5	09-Oct-26	15-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-46460	S2 - Wall A-4 - Fig B - FRP Footing	5	16-Oct-26	22-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-12970	S2 - Wall A-4 - Fig A - Cure CIDH Shafts	7	22-Oct-26	28-Oct-26	5609 - TCD [P]	
CON-45470	S2 - Wall A-4 - Fig B - Backfill	1	23-Oct-26	23-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-12980	S2 - Wall A-4 - Fig A - Fine Grade	5	29-Oct-26	04-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-12990	S2 - Wall A-4 - Fig A - FRP Footing	5	05-Nov-26	13-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-13000	S2 - Wall A-4 - Fig A - Backfill	1	16-Nov-26	16-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
Const | S1 | S2 | Sep Access | Seg A | Ret Fill Sta 51+96 to Sta 54+75 | Wall A-4 - Panels		57	07-Nov-26	15-Nov-27		
CON-10860	S2 - Wall A-4 - FRP Panels - Section 1	5	17-Nov-26	02-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-10870	S2 - Wall A-4 - Cure Panels - Section 1	7	03-Dec-26	09-Dec-26	5609 - TCD [P]	
CON-10880	S2 - Wall A-4 - Strip Panels - Section 1	2	07-Dec-26	08-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-10890	S2 - Wall A-4 - FRP Panels - Section 2	8	08-Dec-26	17-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Cty	
CON-46480	S2 - Wall A-4 - Cure Panels - Section 2	7	18-Dec-26	24-Dec-26	5609 - TCD [P]	
CON-46490	S2 - Wall A-4 - Strip Panels - Section 2	2	04-Jan-27	05-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Cty	

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	mainline	Start	Finish	Calendar	
CON-46500	S2 - Wall A-1 - FRP Panels - Section 3	4	06-Jan-27	11-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall A-1 - FRP Panels - Section 3
CON-46520	S2 - Wall A-4 - Strip Panels - Section 3	2	07-Jan-27	08-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall A-4 - Strip Panels - Section 3
CON-46510	S2 - Wall A-4 - Cure Panels - Section 3	7	12-Jan-27	18-Jan-27	5609 - TCD [P]	S2 - Wall A-4 - Cure Panels - Section 3
CON-10900	S2 - Wall A-4 - Surface Finish / Apply Arch Finish	6	19-Jan-27	25-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall A-4 - Surface Finish / Apply Arch Finish
Const | S12 | Sep Access | Seg A | Ret Fill Sta 51+96 to Sta 54+75 Rdwy Section						S2 - Wall A-4 - Surface Finish / Apply Arch Finish
CON-15060	S2 - A 51+96 to 54+75 - Place, Contour & Grade Wall BF& Ramp Embankment	19	02-Mar-27	26-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - A 51+96 to 54+75 - Place, Contour & Grade Wall BF& Ramp Embankment
CON-15070	S2 - A 51+96 to 54+75 - Install Drainage Pipe & Appurtenances	5	29-Mar-27	02-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - A 51+96 to 54+75 - Install Drainage Pipe & Appurtenances
CON-15080	S2 - A 51+96 to 54+75 - Install Drainage Boxes & Appurtenances	10	01-Apr-27	14-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - A 51+96 to 54+75 - Install Drainage Boxes & Appurtenances
CON-15120	S2 - A 51+96 to 54+75 - Fine Grade Subgrade	3	21-Apr-27	23-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - A 51+96 to 54+75 - Fine Grade Subgrade
CON-15090	S2 - A 51+96 to 54+75 - FRP Traffic Barrier	5	25-Apr-27	30-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - A 51+96 to 54+75 - FRP Traffic Barrier
CON-15100	S2 - A 51+96 to 54+75 - Place & Fine Grade Agg Base	6	03-May-27	10-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - A 51+96 to 54+75 - Place & Fine Grade Agg Base
CON-15110	S2 - A 51+96 to 54+75 - Place HMA Pavement	1	11-May-27	14-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - A 51+96 to 54+75 - Place HMA Pavement
Const | S12 | Sep Access | Seg C		318	27-Mar-27	22-May-27		S2 - A 51+96 to 54+75 - Place HMA Pavement
Const | S12 | Sep Access | Seg C | At Grade SEP1 Sta 27+33 to C Sta 12+78		54	26-Jan-27	08-Apr-27		S2 - A 51+96 to 54+75 - Place HMA Pavement
CON-47781	S2 - C SEP1 27+33 to C 12+78 - Install Retaining Barrier Off of Wall E-2	4	28-Jan-27	28-Jan-27	5609 - SWD, Hol	S2 - C SEP1 27+33 to C 12+78 - Install Retaining Barrier Off of Wall E-2
CON-12951	S2 - C SEP1 27+33 to C 12+78 - Remove Pavements & Hardscapes	4	01-Feb-27	04-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - C SEP1 27+33 to C 12+78 - Remove Pavements & Hardscapes
CON-12971	S2 - C SEP1 27+33 to C 12+78 - Perform Roadway Excavation	4	05-Feb-27	10-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - C SEP1 27+33 to C 12+78 - Perform Roadway Excavation
CON-12981	S2 - C SEP1 27+33 to C 12+78 - Install Storm Drainage & Appurtenances	18	11-Feb-27	04-Mar-27	5609 - SWD, Hol	S2 - C SEP1 27+33 to C 12+78 - Install Storm Drainage & Appurtenances
CON-12991	S2 - C SEP1 27+33 to C 12+78 - Grade for Curb & Gutter	3	06-Mar-27	09-Mar-27	5609 - SWD, Hol	S2 - C SEP1 27+33 to C 12+78 - Grade for Curb & Gutter
CON-13001	S2 - C SEP1 27+33 to C 12+78 - Place Curb & Gutter	3	10-Mar-27	12-Mar-27	5609 - SWD, Hol	S2 - C SEP1 27+33 to C 12+78 - Place Curb & Gutter
CON-47801	S2 - C SEP1 27+33 to C 12+78 - Install Street Lighting Conduits & Foundations	4	15-Mar-27	18-Mar-27	5609 - SWD, Hol	S2 - C SEP1 27+33 to C 12+78 - Install Street Lighting Conduits & Foundations
CON-13011	S2 - C SEP1 27+33 to C 12+78 - Fine Grade Subgrade	2	19-Mar-27	22-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - C SEP1 27+33 to C 12+78 - Fine Grade Subgrade
CON-13021	S2 - C SEP1 27+33 to C 12+78 - Place & Fine Grade Agg Base	4	23-Mar-27	26-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - C SEP1 27+33 to C 12+78 - Place & Fine Grade Agg Base
CON-13031	S2 - C SEP1 27+33 to C 12+78 - Place ACP Base Course	2	31-Mar-27	30-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - C SEP1 27+33 to C 12+78 - Place ACP Base Course
CON-13041	S2 - C SEP1 27+33 to C 12+78 - FRP Traffic Barrier Along Sepulveda & Turnout	6	31-Mar-27	09-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - C SEP1 27+33 to C 12+78 - FRP Traffic Barrier Along Sepulveda & Turnout
Const | S12 | Sep Access | Seg C | Retained Fill Sta 12+78 to Sta 16+80		184	18-Jan-26	19-Mar-27		S2 - C SEP1 27+33 to C 12+78 - FRP Traffic Barrier Along Sepulveda & Turnout
Const | S12 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-1		79	06-Jul-26	20-Aug-26		S2 - Wall C-1 - Prep Work Pad for CIDH / Remove Ex Pmnts & Exc
Const | S12 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-1 | CIDH		40	06-Jul-26	28-Aug-26		S2 - Wall C-1 - Install CIDH Shafts
CON-10910	S2 - Wall C-1 - Prep Work Pad for CIDH / Remove Ex Pmnts & Exc	5	08-Jul-26	13-Jul-26	5609 - SWD, Hol	S2 - Wall C-1 - Prep Work Pad for CIDH / Remove Ex Pmnts & Exc
CON-10920	S2 - Wall C-1 - Install CIDH Shafts	14	04-Aug-26	21-Aug-26	5609 - SWD, Hol	S2 - Wall C-1 - Install CIDH Shafts
CON-10930	S2 - Wall C-1 - Cure CIDH Shafts	7	22-Aug-26	28-Aug-26	5609 - TCD [P]	S2 - Wall C-1 - Cure CIDH Shafts
CON-10950	S2 - Wall C-1 - Sandblast CIDH Shafts	1	24-Aug-26	24-Aug-26	5609 - SWD, Hol	S2 - Wall C-1 - Sandblast CIDH Shafts
Const | S12 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-1 | Wall		35	31-Aug-26	19-Oct-26		S2 - Wall C-1 - FRP Panels Section 1
CON-10940	S2 - Wall C-1 - Fine Grade Footing	3	31-Aug-26	02-Sep-26	5609 - SWD, Hol	S2 - Wall C-1 - Fine Grade Footing
CON-10970	S2 - Wall C-1 - FRP Footing	6	03-Sep-26	15-Sep-26	5609 - SWD, Hol	S2 - Wall C-1 - FRP Footing
CON-48740	S2 - Wall C-1 - Backfill to Top of Footing	1	14-Sep-26	14-Sep-26	5609 - SWD, Hol	S2 - Wall C-1 - Backfill to Top of Footing
CON-11000	S2 - Wall C-1 - FRP Panels Section 1	6	15-Sep-26	22-Sep-26	5609 - SWD, Hol	S2 - Wall C-1 - FRP Panels Section 1
CON-11030	S2 - Wall C-1 - Cure Section 1	7	23-Sep-26	29-Sep-26	5609 - TCD [P]	S2 - Wall C-1 - Cure Section 1
CON-11060	S2 - Wall C-1 - Strip Panels Section 1	2	24-Sep-26	25-Sep-26	5609 - SWD, Hol	S2 - Wall C-1 - Strip Panels Section 1
CON-11010	S2 - Wall C-1 - FRP Panels Section 2	8	29-Sep-26	05-Oct-26	5609 - SWD, Hol	S2 - Wall C-1 - FRP Panels Section 2
CON-11040	S2 - Wall C-1 - Cure Section 2	7	05-Oct-26	12-Oct-26	5609 - TCD [P]	S2 - Wall C-1 - Cure Section 2
CON-11070	S2 - Wall C-1 - Strip Panels Section 2	2	07-Oct-26	08-Oct-26	5609 - SWD, Hol	S2 - Wall C-1 - Strip Panels Section 2
CON-11090	S2 - Wall C-1 - Surface Finish Front Face / Install Arch Finishes	5	13-Oct-26	19-Oct-26	5609 - SWD, Hol	S2 - Wall C-1 - Surface Finish Front Face / Install Arch Finishes
Const | S12 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2		72	18-Jul-26	28-Sep-26		S2 - Wall C-2 - Prep Work Pad for CIDH / Remove Ex Pmnts & Exc
Const | S12 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Footing A		52	18-Jul-26	31-Aug-26		S2 - Wall C-2 - Install CIDH Shafts
CON-11100	S2 - Wall C-2 - Prep Work Pad for CIDH / Remove Ex Pmnts & Exc	7	18-Jul-26	26-Jul-26	5609 - SWD, Hol	S2 - Wall C-2 - Prep Work Pad for CIDH / Remove Ex Pmnts & Exc
CON-11110	S2 - Wall C-2 - Install CIDH Shafts	25	29-Jul-26	23-Aug-26	5609 - SWD, Hol	S2 - Wall C-2 - Install CIDH Shafts
CON-11120	S2 - Wall C-2 - Cure CIDH Shafts	7	30-Jul-26	06-Aug-26	5609 - TCD [P]	S2 - Wall C-2 - Cure CIDH Shafts
CON-13050	S2 - Wall C-2 - Sandblast CIDH	1	30-Jul-26	30-Jul-26	5609 - SWD, Hol	S2 - Wall C-2 - Sandblast CIDH
CON-11130	S2 - Wall C-2 - Fine Grade Footing A	9	11-Aug-26	17-Aug-26	5609 - SWD, Hol	S2 - Wall C-2 - Fine Grade Footing A
CON-11180	S2 - Wall C-2 - FRP Footing A	6	18-Aug-26	27-Aug-26	5609 - SWD, Hol	S2 - Wall C-2 - FRP Footing A
CON-11190	S2 - Wall C-2 - Backfill to Top of Footing A	2	28-Aug-26	31-Aug-26	5609 - SWD, Hol	S2 - Wall C-2 - Backfill to Top of Footing A
Const | S12 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Footing B		2	31-Jul-26	28-Jul-26		S2 - Wall C-2 - FRP Footing B
CON-48850	S2 - Wall C-2 - Excavate for Footing B	7	29-Jul-26	06-Jul-26	5609 - SWD, Hol	S2 - Wall C-2 - Excavate for Footing B
CON-48860	S2 - Wall C-2 - Install Backfill Soil Correction	4	09-Jul-26	14-Jul-26	5609 - SWD, Hol	S2 - Wall C-2 - Install Backfill Soil Correction
CON-48890	S2 - Wall C-2 - Excavate Keyway Footing B	2	15-Jul-26	16-Jul-26	5609 - SWD, Hol	S2 - Wall C-2 - Excavate Keyway Footing B

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-46910	S2 - Wall C-2 - FRP Footing Section 2	6	17-Jul-26	24-Jul-26	5609 - SWD, Hol	
CON-46920	S2 - Wall C-2 - Backfill to Top of Footing B	2	27-Jul-26	28-Jul-26	5609 - SWD, Hol	
Const | S1.2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 1		8	01-Sep-26	11-Sep-26		
CON-11230	S2 - Wall C-2 - FRP Panels Section 1	4	01-Sep-26	24-Sep-26	5609 - SWD, Hol	
CON-11280	S2 - Wall C-2 - Cure Section 1	7	05-Sep-26	11-Sep-26	5609 - TCD [P]	
CON-11330	S2 - Wall C-2 - Strip Panels Section 1	2	08-Sep-26	29-Sep-26	5609 - SWD, Hol	
Const | S1.2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 2		6	10-Sep-26	22-Sep-26		
CON-11240	S2 - Wall C-2 - FRP Panels Section 2	4	10-Sep-26	15-Sep-26	5609 - SWD, Hol	
CON-11290	S2 - Wall C-2 - Cure Section 2	7	16-Sep-26	22-Sep-26	5609 - TCD [P]	
CON-11340	S2 - Wall C-2 - Strip Panels Section 2	2	17-Sep-26	18-Sep-26	5609 - SWD, Hol	
Const | S1.2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 3a		9	29-Jul-26	10-Aug-26		
CON-11250	S2 - Wall C-2 - FRP Panels Section 3a	4	29-Jul-26	03-Aug-26	5609 - SWD, Hol	
CON-11300	S2 - Wall C-2 - Cure Section 3a	7	04-Aug-26	10-Aug-26	5609 - TCD [P]	
CON-11350	S2 - Wall C-2 - Strip Panels Section 3a	2	05-Aug-26	06-Aug-26	5609 - SWD, Hol	
Const | S1.2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 3b		9	29-Jul-26	10-Aug-26		
CON-46770	S2 - Wall C-2 - FRP Panels Section 3b	4	29-Jul-26	03-Aug-26	5609 - SWD, Hol	
CON-46780	S2 - Wall C-2 - Cure Section 3b	7	04-Aug-26	10-Aug-26	5609 - TCD [P]	
CON-46790	S2 - Wall C-2 - Strip Panels Section 3b	2	05-Aug-26	06-Aug-26	5609 - SWD, Hol	
Const | S1.2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 3c		9	29-Jul-26	10-Aug-26		
CON-46820	S2 - Wall C-2 - FRP Panels Section 3c	4	07-Aug-26	12-Aug-26	5609 - SWD, Hol	
CON-46830	S2 - Wall C-2 - Cure Section 3c	7	13-Aug-26	19-Aug-26	5609 - TCD [P]	
CON-46840	S2 - Wall C-2 - Strip Panels Section 3c	2	14-Aug-26	17-Aug-26	5609 - SWD, Hol	
Const | S1.2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 4		9	07-Aug-26	19-Aug-26		
CON-11260	S2 - Wall C-2 - FRP Panels Section 4	4	07-Aug-26	12-Aug-26	5609 - SWD, Hol	
CON-11310	S2 - Wall C-2 - Cure Section 4	7	13-Aug-26	19-Aug-26	5609 - TCD [P]	
CON-11360	S2 - Wall C-2 - Strip Panels Section 4	2	14-Aug-26	17-Aug-26	5609 - SWD, Hol	
Const | S1.2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 5		9	07-Aug-26	19-Aug-26		
CON-11270	S2 - Wall C-2 - FRP Panels Section 5	4	16-Aug-26	21-Aug-26	5609 - SWD, Hol	
CON-11320	S2 - Wall C-2 - Cure Section 5	7	22-Aug-26	28-Aug-26	5609 - TCD [P]	
CON-11370	S2 - Wall C-2 - Strip Panels Section 5	2	24-Aug-26	25-Aug-26	5609 - SWD, Hol	
Const | S1.2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Finishes		9	23-Sep-26	29-Sep-26		
CON-15450	S2 - Wall C-2 - Surface Finish Front Face / Install Arch Finishes	5	23-Sep-26	29-Sep-26	5609 - SWD, Hol	
Const | S1.2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Rdwy Section		40	11-Jan-27	19-Apr-27		
CON-47691	S2 - C 12+78 to 16+80 - Install Retaining Barrier	3	11-Jan-27	13-Jan-27	5609 - SWD, Hol	
CON-14590	S2 - C 12+78 to 16+80 - Place, Contour & Grade Wall BF & Ramp Embankment	22	14-Jan-27	12-Feb-27	5609 - SWD, Hol	
CON-14550	S2 - C 12+78 to 16+80 - Fine Grade Subgrade	2	16-Feb-27	17-Feb-27	5609 - SWD, Hol	
CON-47701	S2 - C 12+78 to 16+80 - Install Curb & Gutter	3	16-Feb-27	22-Feb-27	5609 - SWD, Hol	
CON-14540	S2 - C 12+78 to 16+80 - Place & Fine Grade Agg Base	4	23-Feb-27	28-Feb-27	5609 - SWD, Hol	
CON-14560	S2 - C 12+78 to 16+80 - Place Base Course Pavement	7	01-Mar-27	01-Mar-27	5609 - SWD, Hol	
CON-47711	S2 - C 12+78 to 16+80 - FRP Traffic Barrier Wall C-1	3	02-Mar-27	04-Mar-27	5609 - SWD, Hol	
CON-47721	S2 - C 12+78 to 16+80 - FRP Traffic Barrier Wall C-2	4	05-Mar-27	10-Mar-27	5609 - SWD, Hol	
CON-47731	S2 - C 12+78 to 16+80 - FRP Traffic Barrier @ Bridge Sidewalk	4	11-Mar-27	18-Mar-27	5609 - SWD, Hol	
CON-47741	S2 - C 12+78 to 16+80 - FRP Traffic Barrier At Grd Sta 11+42 to Sta 17+20	3	17-Mar-27	19-Mar-27	5609 - SWD, Hol	
Const | S1.2 | Sep Access | Seg C | Bridge Sta 16+80 to Sta 18+93		30	27-Jan-26	13-Apr-27		
Const | S1.2 | Sep Access | Seg C | Bridge Sta 16+80 to Sta 18+93 | F&S		22	27-Jan-26	15-Dec-26		
CON-26530	S2 - C-F1-AA10C - Prep Work Pad for CIDH	1	27-Jan-26	27-Jan-26	5609 - SWD, Hol	
CON-26540	S2 - C-F1-AA10C - Install CIDH / Shunt(s)	7	23-Feb-26	03-Mar-26	5609 - SWD, Hol	
CON-26580	S2 - C-F1-AA10C - Excavate Footing	4	04-Mar-26	09-Mar-26	5609 - SWD, Hol	
CON-26520	S2 - C-F1-AA10C - Cure CIDH	7	04-Mar-26	10-Mar-26	5609 - TCD [P]	
CON-26510	S2 - C-F1-AA10C - Prep CIDH for Footing Construction	3	10-Mar-26	12-Mar-26	5609 - SWD, Hol	
CON-26390	S2 - C-F1-AA10C - Form Footing/Dowel Template	3	13-Mar-26	16-Mar-26	5609 - SWD, Hol	
CON-26400	S2 - C-F1-AA10C - Place Rebar	3	18-Mar-26	20-Mar-26	5609 - SWD, Hol	
CON-26410	S2 - C-F1-AA10C - Place Footing Concrete	1	23-Mar-26	23-Mar-26	5609 - SWD, Hol	
CON-26420	S2 - C-F1-AA10C - Cure Footing Concrete	7	24-Mar-26	30-Mar-26	5609 - TCD [P]	
CON-26430	S2 - C-F1-AA10C - Strip Footing Form/Dowel Template	1	24-Mar-26	24-Mar-26	5609 - SWD, Hol	

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-26440	S2 - C-F1 - AA10C - Rebar/Prep For Stems & Wings	1	25-Mar-26	25-Mar-26	5609 - SWD, Hol	S2 - C-F1 - AA10C - Rebar/Prep For Stems & Wings
CON-26450	S2 - C-F1 - AA10C - Form 1S Stems/Wings/Backwall	3	28-Mar-26	30-Mar-26	5609 - SWD, Hol	S2 - C-F1 - AA10C - Form 1S Stems/Wings/Backwall
CON-26460	S2 - C-F1 - AA10C - Place Stem & Wing Rebar	3	31-Mar-26	02-Apr-26	5609 - SWD, Hol	S2 - C-F1 - AA10C - Place Stem & Wing Rebar
CON-26470	S2 - C-F1 - AA10C - Form 2S Stems & Wings	2	03-Apr-26	06-Apr-26	5609 - SWD, Hol	S2 - C-F1 - AA10C - Form 2S Stems & Wings
CON-26480	S2 - C-F1 - AA10C - Place Stem & Wing Concrete	1	07-Apr-26	07-Apr-26	5609 - SWD, Hol	S2 - C-F1 - AA10C - Place Stem & Wing Concrete
CON-26490	S2 - C-F1 - AA10C - Cure Stem & Wing Concrete	7	08-Apr-26	14-Apr-26	5609 - TCD [P]	S2 - C-F1 - AA10C - Cure Stem & Wing Concrete
CON-26500	S2 - C-F1 - AA10C - Strip Stem & Wing Forms / Rough Surface Finish	2	15-Apr-26	16-Apr-26	5609 - SWD, Hol	S2 - C-F1 - AA10C - Strip Stem & Wing Forms / Rough Surface Finish
CON-26900	S2 - C-F1 - AA10C - Backfill	1	15-Dec-26	16-Dec-26	5609 - SWD, Hol	S2 - C-F1 - AA10C - Backfill
Const [St 2] Sep Access [Seg C] Bridge Sta 16+80 to Sta 18+93 | Fr C-F1 | PS S						09-Apr-27, Const [St 2] Sep Access [Seg C] Bridge Sta 16+80 to Sta 18+93 | Fr C-F1 | PS S
Const [St 2] Sep Access [Seg C] Bridge Sta 18+80 to Sta 18+93 | Fr C-F1 | Sup | FW						09-Apr-27, Const [St 2] Sep Access [Seg C] Bridge Sta 18+80 to Sta 18+93 | Fr C-F1 | Sup | FW
CON-26910	S2 - C-F1 - FW - Install Grillage/Bent/Bent Caps/Post/Stingers	5	23-Aug-26	03-Sep-26	5609 - SWD, Hol	S2 - C-F1 - FW - Install Grillage/Bent/Bent Caps/Post/Stingers
CON-26911	S2 - C-F1 - FW - Remove Falsework	5	03-Apr-27	09-Apr-27	5609 - SWD, Hol	S2 - C-F1 - FW - Remove Falsework
Const [St 2] Sep Access [Seg C] Bridge Sta 16+80 to Sta 18+93 | Fr C-F1 | Sup | Self & Stems						16-Oct-26, Const [St 2] Sep Access [Seg C] Bridge Sta 16+80 to Sta 18+93 | Fr C-F1 | Sup | Self & Stems
CON-18860	S2 - C-F1 - S&S - Install Self & Safety Rail	4	04-Sep-26	10-Sep-26	5609 - SWD, Hol	S2 - C-F1 - S&S - Install Self & Safety Rail
CON-19060	S2 - C-F1 - S&S - Form Exterior Girder & OH	4	11-Sep-26	16-Sep-26	5609 - SWD, Hol	S2 - C-F1 - S&S - Form Exterior Girder & OH
CON-54331	S2 - C-F1 - S&S - Install Elastomeric Bearing Pads @ AA10	4	11-Sep-26	16-Sep-26	5609 - SWD, Hol	S2 - C-F1 - S&S - Install Elastomeric Bearing Pads @ AA10
CON-19180	S2 - C-F1 - S&S - Place Self Rebar	2	17-Sep-26	18-Sep-26	5609 - SWD, Hol	S2 - C-F1 - S&S - Place Self Rebar
CON-19280	S2 - C-F1 - S&S - Place Stem Rebar	3	21-Sep-26	23-Sep-26	5609 - SWD, Hol	S2 - C-F1 - S&S - Place Stem Rebar
CON-19460	S2 - C-F1 - S&S - Install PT Ducts Frame 2 Self & Stems	4	24-Sep-26	29-Sep-26	5609 - SWD, Hol	S2 - C-F1 - S&S - Install PT Ducts Frame 2 Self & Stems
CON-19530	S2 - C-F1 - S&S - Form Interior Girder & Walkways	3	30-Sep-26	02-Oct-26	5609 - SWD, Hol	S2 - C-F1 - S&S - Form Interior Girder & Walkways
CON-19640	S2 - C-F1 - S&S - Form Diaphragms & Blockouts	2	05-Oct-26	06-Oct-26	5609 - SWD, Hol	S2 - C-F1 - S&S - Form Diaphragms & Blockouts
CON-19710	S2 - C-F1 - S&S - Place Self & Stem Concrete	2	07-Oct-26	08-Oct-26	5609 - SWD, Hol	S2 - C-F1 - S&S - Place Self & Stem Concrete
CON-19740	S2 - C-F1 - S&S - Cure Self & Stem Concrete	7	09-Oct-26	16-Oct-26	5609 - TCD [P]	S2 - C-F1 - S&S - Cure Self & Stem Concrete
CON-19750	S2 - C-F1 - S&S - Strip Interior Girder Forms & Walkways	2	09-Oct-26	10-Oct-26	5609 - SWD, Hol	S2 - C-F1 - S&S - Strip Interior Girder Forms & Walkways
CON-19830	S2 - C-F1 - S&S - Strip Diaphragms	2	13-Oct-26	14-Oct-26	5609 - SWD, Hol	S2 - C-F1 - S&S - Strip Diaphragms
Const [St 2] Sep Access [Seg C] Bridge Sta 16+80 to Sta 18+93 | Fr C-F1 | Sup | Deck						16-Nov-26, Const [St 2] Sep Access [Seg C] Bridge Sta 16+80 to Sta 18+93 | Fr C-F1 | Sup | Deck
CON-19840	S2 - C-F1 - DECK - Form Last Deck	3	18-Oct-26	20-Oct-26	5609 - SWD, Hol	S2 - C-F1 - DECK - Form Last Deck
CON-19920	S2 - C-F1 - DECK - Form EOD	2	21-Oct-26	23-Oct-26	5609 - SWD, Hol	S2 - C-F1 - DECK - Form EOD
CON-19940	S2 - C-F1 - DECK - Install Scribed Rails & Run-Offs	3	22-Oct-26	26-Oct-26	5609 - SWD, Hol	S2 - C-F1 - DECK - Install Scribed Rails & Run-Offs
CON-19970	S2 - C-F1 - DECK - Place Deck Rebar	6	23-Oct-26	30-Oct-26	5609 - SWD, Hol	S2 - C-F1 - DECK - Place Deck Rebar
CON-19980	S2 - C-F1 - DECK - Setup Bridge Finishing Machine & Work Bridges	1	27-Oct-26	27-Oct-26	5609 - SWD, Hol	S2 - C-F1 - DECK - Setup Bridge Finishing Machine & Work Bridges
CON-20020	S2 - C-F1 - DECK - Dryrun Bridge Finishing Machine	1	02-Nov-26	02-Nov-26	5609 - SWD, Hol	S2 - C-F1 - DECK - Dryrun Bridge Finishing Machine
CON-20050	S2 - C-F1 - DECK - Place Bridge Deck Concrete	1	03-Nov-26	03-Nov-26	5609 - SWD, Hol	S2 - C-F1 - DECK - Place Bridge Deck Concrete
CON-20060	S2 - C-F1 - DECK - Cure Bridge Deck Concrete	7	04-Nov-26	10-Nov-26	5609 - TCD [P]	S2 - C-F1 - DECK - Cure Bridge Deck Concrete
CON-20070	S2 - C-F1 - DECK - Strip Scribed Rails & EOD	1	12-Nov-26	12-Nov-26	5609 - SWD, Hol	S2 - C-F1 - DECK - Strip Scribed Rails & EOD
CON-20210	S2 - C-F1 - DECK - Strip Exterior Girder & OH Forms	2	13-Nov-26	15-Nov-26	5609 - SWD, Hol	S2 - C-F1 - DECK - Strip Exterior Girder & OH Forms
Const [St 2] Sep Access [Seg C] Bridge Sta 16+80 to Sta 18+93 | Fr C-F1 | Sup | PT & BW						14-Dec-26, Const [St 2] Sep Access [Seg C] Bridge Sta 16+80 to Sta 18+93 | Fr C-F1 | Sup | PT & BW
CON-20300	S2 - C-F1 - PT - Install PT Stands	8	10-Nov-26	16-Nov-26	5609 - SWD, Hol	S2 - C-F1 - PT - Install PT Stands
CON-20140	S2 - C-F1 - PT - Struss & Lockoff	3	17-Nov-26	19-Nov-26	5609 - SWD, Hol	S2 - C-F1 - PT - Struss & Lockoff
CON-20150	S2 - C-F1 - PT - Grout PT Ducts	2	20-Nov-26	23-Nov-26	5609 - SWD, Hol	S2 - C-F1 - PT - Grout PT Ducts
CON-20220	S2 - C-F1 - PT - FRP/PT Blockouts	3	24-Nov-26	30-Nov-26	5609 - SWD, Hol	S2 - C-F1 - PT - FRP/PT Blockouts
CON-20300	S2 - C-F1 - PT - Place Backwall Rebar AA11	1	01-Dec-26	01-Dec-26	5609 - SWD, Hol	S2 - C-F1 - PT - Place Backwall Rebar AA11
CON-20320	S2 - C-F1 - PT - Form 2S Backwall AA11	1	02-Dec-26	02-Dec-26	5609 - SWD, Hol	S2 - C-F1 - PT - Form 2S Backwall AA11
CON-20340	S2 - C-F1 - PT - Place Backwall Concrete AA11	1	03-Dec-26	03-Dec-26	5609 - SWD, Hol	S2 - C-F1 - PT - Place Backwall Concrete AA11
CON-20350	S2 - C-F1 - PT - Cure Backwall Concrete AA11	7	04-Dec-26	10-Dec-26	5609 - TCD [P]	S2 - C-F1 - PT - Cure Backwall Concrete AA11
CON-20360	S2 - C-F1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal AA11	1	14-Dec-26	14-Dec-26	5609 - SWD, Hol	S2 - C-F1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal AA11
Const [St 2] Sep Access [Seg C] Bridge Sta 16+80 to Sta 18+93 | Finishes						13-Apr-27, Const [St 2] Sep Access [Seg C] Bridge Sta 16+80 to Sta 18+93 | Finishes
CON-10610	S2 - B-C - FRP Approach Slab AA11	8	16-Feb-27	23-Feb-27	5609 - SWD, Hol	S2 - B-C - FRP Approach Slab AA11
CON-10770	S2 - B-C - FRP Bridge Rail	2	13-Apr-27	13-Apr-27	5609 - SWD, Hol	S2 - B-C - FRP Bridge Rail
Const [St 2] Sep Access [Seg C] Roadway Finishes						03-May-27, Const [St 2] Sep Access [Seg C] Roadway Finishes
CON-47751	S2 - C-12+78 to 16+80 - Install Street Lighting	5	12-Apr-27	16-Apr-27	5609 - SWD, Hol	S2 - C-12+78 to 16+80 - Install Street Lighting
CON-47781	S2 - C-12+78 to 16+80 - Install DHS & ITS Guidelines & Signs	5	19-Apr-27	23-Apr-27	5609 - SWD, Hol	S2 - C-12+78 to 16+80 - Install DHS & ITS Guidelines & Signs
CON-47771	S2 - C-12+78 to 16+80 - Place Wear Course Permit Sep to B/C	1	26-Apr-27	26-Apr-27	5609 - SWD, Hol, TDay Xmas, WC, City	S2 - C-12+78 to 16+80 - Place Wear Course Permit Sep to B/C
CON-47781	S2 - C-12+78 to 16+80 - Place Permit M/igs & Signs	5	27-Apr-27	03-May-27	5609 - SWD, Hol, TDay Xmas, WC, City	S2 - C-12+78 to 16+80 - Place Permit M/igs & Signs
Const [St 2] Sep Access [Seg D]						15-Jan-28, Const [St 2] Sep Access [Seg D]
Const [St 2] Sep Access [Seg D] Retained Fill Sta 13+06 to Sta 18+62						10-Jan-28, Const [St 2] Sep Access [Seg D] Retained Fill Sta

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1		78	07-Apr-27	25-Jul-27	
CON-11660	S2 - Wall D-1 - Prep Work Pad for CIDH / Remove Ex Pmmts	4	07-Apr-27	12-Apr-27	5609 - SWD, Hol
CON-11670	S2 - Wall D-1 - Install CIDH Shafts	36	27-May-27	21-Jun-27	5609 - SWD, Hol
CON-11680	S2 - Wall D-1 - Final Cure CIDH Shafts	7	22-Jun-27	28-Jun-27	5609 - TCD [P]
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1 | Section 1		15	28-Jul-27	12-Aug-27	
CON-11690	S2 - Wall D-1 - Excavate for Footing Section 1	1	29-Jul-27	29-Jul-27	5609 - SWD, Hol
CON-11740	S2 - Wall D-1 - FRP Footing Section 1	8	30-Jul-27	03-Aug-27	5609 - SWD, Hol
CON-11790	S2 - Wall D-1 - FRP Panels Section 1	8	04-Aug-27	11-Aug-27	5609 - SWD, Hol
CON-11840	S2 - Wall D-1 - Final Cure Section 1	1	12-Aug-27	12-Aug-27	5609 - TCD [P]
CON-11850	S2 - Wall D-1 - Strip Panels Section 1	2	13-Aug-27	15-Aug-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1 | Section 2		15	30-Jul-27	14-Aug-27	
CON-11700	S2 - Wall D-1 - Excavate for Footing Section 2	1	30-Jul-27	30-Jul-27	5609 - SWD, Hol
CON-11750	S2 - Wall D-1 - FRP Footing Section 2	3	04-Aug-27	06-Aug-27	5609 - SWD, Hol
CON-11800	S2 - Wall D-1 - FRP Panels Section 2	8	09-Aug-27	16-Aug-27	5609 - SWD, Hol
CON-11850	S2 - Wall D-1 - Final Cure Section 2	1	17-Aug-27	17-Aug-27	5609 - TCD [P]
CON-11900	S2 - Wall D-1 - Strip Panels Section 2	2	18-Aug-27	19-Aug-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1 | Section 3		10	02-Aug-27	24-Aug-27	
CON-11710	S2 - Wall D-1 - Excavate for Footing Section 3	1	02-Aug-27	02-Aug-27	5609 - SWD, Hol
CON-11760	S2 - Wall D-1 - FRP Footing Section 3	3	08-Aug-27	11-Aug-27	5609 - SWD, Hol
CON-11810	S2 - Wall D-1 - FRP Panels Section 3	6	12-Aug-27	19-Aug-27	5609 - SWD, Hol
CON-11860	S2 - Wall D-1 - Final Cure Section 3	1	20-Aug-27	20-Aug-27	5609 - TCD [P]
CON-11910	S2 - Wall D-1 - Strip Panels Section 3	2	23-Aug-27	24-Aug-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1 | Section 4		10	03-Aug-27	24-Aug-27	
CON-11720	S2 - Wall D-1 - Excavate for Footing Section 4	1	03-Aug-27	03-Aug-27	5609 - SWD, Hol
CON-11770	S2 - Wall D-1 - FRP Footing Section 4	3	12-Aug-27	18-Aug-27	5609 - SWD, Hol
CON-11820	S2 - Wall D-1 - FRP Panels Section 4	6	17-Aug-27	24-Aug-27	5609 - SWD, Hol
CON-11870	S2 - Wall D-1 - Final Cure Section 4	1	25-Aug-27	25-Aug-27	5609 - TCD [P]
CON-11920	S2 - Wall D-1 - Strip Panels Section 4	2	26-Aug-27	27-Aug-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1 | Section 5		20	04-Aug-27	31-Aug-27	
CON-11730	S2 - Wall D-1 - Excavate for Footing Section 5	1	04-Aug-27	04-Aug-27	5609 - SWD, Hol
CON-11780	S2 - Wall D-1 - FRP Footing Section 5	3	17-Aug-27	19-Aug-27	5609 - SWD, Hol
CON-11830	S2 - Wall D-1 - FRP Panels Section 5	8	20-Aug-27	27-Aug-27	5609 - SWD, Hol
CON-11880	S2 - Wall D-1 - Final Cure Section 5	1	28-Aug-27	28-Aug-27	5609 - TCD [P]
CON-11930	S2 - Wall D-1 - Strip Panels Section 5	2	30-Aug-27	31-Aug-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1 | Finishes		5	01-Sep-27	05-Sep-27	
CON-14410	S2 - Wall D-1 - Surface Finish Front Face / Install Arch Finishes	5	01-Sep-27	05-Sep-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2		7	25-Mar-27	01-Jun-27	
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | CIDH		48	25-Mar-27	02-Jun-27	
CON-11640	S2 - Wall D-2 - Prep Work Pad for CIDH / Remove Ex Pmmts	4	25-Mar-27	31-Mar-27	5609 - SWD, Hol
CON-11650	S2 - Wall D-2 - Install CIDH Shafts	40	01-Apr-27	25-May-27	5609 - SWD, Hol
CON-11660	S2 - Wall D-2 - Final Cure CIDH Shafts	7	27-May-27	02-Jun-27	5609 - TCD [P]
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Section 1		13	27-Jun-27	21-Jul-27	
CON-11970	S2 - Wall D-2 - Excavate for Footing Section 1	1	28-Jun-27	03-Jul-27	5609 - SWD, Hol
CON-12020	S2 - Wall D-2 - FRP Footing Section 1	3	04-Jul-27	08-Jul-27	5609 - SWD, Hol
CON-12070	S2 - Wall D-2 - FRP Panels Section 1	6	08-Jul-27	16-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Qy
CON-12120	S2 - Wall D-2 - Final Cure Section 1	1	17-Jul-27	17-Jul-27	5609 - TCD [P]
CON-12170	S2 - Wall D-2 - Strip Panels Section 1	2	18-Jul-27	21-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Qy
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Section 2		15	04-Jun-27	20-Jun-27	
CON-11980	S2 - Wall D-2 - Excavate for Footing Section 2	1	04-Jun-27	04-Jun-27	5609 - SWD, Hol
CON-12030	S2 - Wall D-2 - FRP Footing Section 2	3	09-Jun-27	11-Jun-27	5609 - SWD, Hol
CON-12080	S2 - Wall D-2 - FRP Panels Section 2	6	14-Jun-27	21-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Qy
CON-12130	S2 - Wall D-2 - Final Cure Section 2	1	22-Jun-27	22-Jun-27	5609 - TCD [P]
CON-12180	S2 - Wall D-2 - Strip Panels Section 2	2	23-Jun-27	24-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Qy
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Section 3		7	07-Jun-27	23-Jun-27	
CON-11990	S2 - Wall D-2 - Excavate for Footing Section 3	1	07-Jun-27	07-Jun-27	5609 - SWD, Hol

■ Actual Work
 ■ Critical Remaining Work
 ■ Summary
■ Remaining Work
 ◆ Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-12040	S2 - Wall D-2 - FRP Footing Section 3		3 14-Jun-27	16-Jun-27	5609 - SWD, Hol	S2 - Wall D-2 - FRP Footing Section 3
CON-12090	S2 - Wall D-2 - FRP Panels Section 3		6 17-Jun-27	24-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - Wall D-2 - FRP Panels Section 3
CON-12140	S2 - Wall D-2 - Final Cure Section 3		1 25-Jun-27	25-Jun-27	5609 - 7CD [P]	S2 - Wall D-2 - Final Cure Section 3
CON-12190	S2 - Wall D-2 - Strip Panels Section 3		2 25-Jun-27	29-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - Wall D-2 - Strip Panels Section 3
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Section 4			15 08-Jun-27	02-Jul-27		Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Section 4
CON-12000	S2 - Wall D-2 - Excavate for Footing Section 4		1 08-Jun-27	08-Jun-27	5609 - SWD, Hol	S2 - Wall D-2 - Excavate for Footing Section 4
CON-12050	S2 - Wall D-2 - FRP Footing Section 4		3 17-Jun-27	21-Jun-27	5609 - SWD, Hol	S2 - Wall D-2 - FRP Footing Section 4
CON-12100	S2 - Wall D-2 - FRP Panels Section 4		8 22-Jun-27	29-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - Wall D-2 - FRP Panels Section 4
CON-12150	S2 - Wall D-2 - Final Cure Section 4		1 30-Jun-27	30-Jun-27	5609 - 7CD [P]	S2 - Wall D-2 - Final Cure Section 4
CON-12200	S2 - Wall D-2 - Strip Panels Section 4		2 01-Jul-27	02-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - Wall D-2 - Strip Panels Section 4
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Section 5			1 08-Jun-27	01-Jul-27		Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Section 5
CON-12010	S2 - Wall D-2 - Excavate for Footing Section 5		1 08-Jun-27	08-Jun-27	5609 - SWD, Hol	S2 - Wall D-2 - Excavate for Footing Section 5
CON-12060	S2 - Wall D-2 - FRP Footing Section 5		8 22-Jun-27	24-Jun-27	5609 - SWD, Hol	S2 - Wall D-2 - FRP Footing Section 5
CON-12110	S2 - Wall D-2 - FRP Panels Section 5		8 23-Jun-27	02-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - Wall D-2 - FRP Panels Section 5
CON-12160	S2 - Wall D-2 - Final Cure Section 5		1 03-Jul-27	03-Jul-27	5609 - 7CD [P]	S2 - Wall D-2 - Final Cure Section 5
CON-12210	S2 - Wall D-2 - Strip Panels Section 5		2 05-Jul-27	07-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - Wall D-2 - Strip Panels Section 5
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Finishes			1 08-Jun-27	01-Jul-27		Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Finishes
CON-14420	S2 - Wall D-2 - Surface Finish Front Face / Install Arch Finishes		8 06-Jul-27	14-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - Wall D-2 - Surface Finish Front Face / Install Arch Finishes
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Rdwy Section			1 08-Jun-27	01-Jul-27		Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Rdwy Section
CON-14710	S2 - D 30+21 to 34+90 - Place, Contour & Grade Wall RF & Ramp Embankment		33 30-Sep-27	16-Nov-27	5609 - SWD, Hol	S2 - D 30+21 to 34+90 - Place, Contour & Grade Wall RF & Ramp Embankment
CON-14720	S2 - D 30+21 to 34+90 - Install Drainage Pipe & Appurtenances		6 17-Nov-27	23-Nov-27	5609 - SWD, Hol	S2 - D 30+21 to 34+90 - Install Drainage Pipe & Appurtenances
CON-14730	S2 - D 30+21 to 34+90 - Install Drainage Boxes & Appurtenances		10 23-Nov-27	08-Dec-27	5609 - SWD, Hol	S2 - D 30+21 to 34+90 - Install Drainage Boxes & Appurtenances
CON-14770	S2 - D 30+21 to 34+90 - Fine Grade Subgrade		3 29-Dec-27	14-Dec-27	5609 - SWD, Hol	S2 - D 30+21 to 34+90 - Fine Grade Subgrade
CON-14740	S2 - D 30+21 to 34+90 - FRP Traffic Barrier		6 15-Dec-27	23-Dec-27	5609 - SWD, Hol	S2 - D 30+21 to 34+90 - FRP Traffic Barrier
CON-14750	S2 - D 30+21 to 34+90 - Place & Fine Grade Agg Base		9 27-Dec-27	03-Jan-28	5609 - SWD, Hol	S2 - D 30+21 to 34+90 - Place & Fine Grade Agg Base
CON-14760	S2 - D 30+21 to 34+90 - Place 4MA Pavement		1 04-Jan-28	04-Jan-28	5609 - SWD, Hol	S2 - D 30+21 to 34+90 - Place 4MA Pavement
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97			506 17-Nov-25	09-Dec-27		Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S			33 17-Nov-25	30-Mar-27		Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S | Subpart D1-A1			42 29-Jan-27	30-Mar-27		Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S | Subpart D1-A1
CON-16950	S2 - D1-F1 - D1-A1 - Prep Work Pad For CIDH		1 28-Jan-27	28-Jan-27	5609 - SWD, Hol	S2 - D1-F1 - D1-A1 - Prep Work Pad For CIDH
CON-17050	S2 - D1-F1 - D1-A1 - Install CIDH Shell(s)		6 08-Feb-27	16-Feb-27	5609 - SWD, Hol	S2 - D1-F1 - D1-A1 - Install CIDH Shell(s)
CON-17160	S2 - D1-F1 - D1-A1 - Install SOB/Excavate Footing		4 17-Feb-27	22-Feb-27	5609 - SWD, Hol	S2 - D1-F1 - D1-A1 - Install SOB/Excavate Footing
CON-17170	S2 - D1-F1 - D1-A1 - Cure CIDH		7 17-Feb-27	23-Feb-27	5609 - 7CD [P]	S2 - D1-F1 - D1-A1 - Cure CIDH
CON-17290	S2 - D1-F1 - D1-A1 - Prep CIDH For Footing Construction		3 23-Feb-27	25-Feb-27	5609 - SWD, Hol	S2 - D1-F1 - D1-A1 - Prep CIDH For Footing Construction
CON-17420	S2 - D1-F1 - D1-A1 - Form Footing/Dowel Template		3 23-Feb-27	02-Mar-27	5609 - SWD, Hol	S2 - D1-F1 - D1-A1 - Form Footing/Dowel Template
CON-17500	S2 - D1-F1 - D1-A1 - Place Rebar		3 03-Mar-27	08-Mar-27	5609 - SWD, Hol	S2 - D1-F1 - D1-A1 - Place Rebar
CON-17760	S2 - D1-F1 - D1-A1 - Place Footing Concrete		1 08-Mar-27	08-Mar-27	5609 - SWD, Hol	S2 - D1-F1 - D1-A1 - Place Footing Concrete
CON-17830	S2 - D1-F1 - D1-A1 - Cure Footing Concrete		7 09-Mar-27	15-Mar-27	5609 - 7CD [P]	S2 - D1-F1 - D1-A1 - Cure Footing Concrete
CON-17840	S2 - D1-F1 - D1-A1 - Strip Footing Forms/Dowel Template		1 09-Mar-27	09-Mar-27	5609 - SWD, Hol	S2 - D1-F1 - D1-A1 - Strip Footing Forms/Dowel Template
CON-17910	S2 - D1-F1 - D1-A1 - Blast/Prep For Stems & Wings		1 10-Mar-27	10-Mar-27	5609 - SWD, Hol	S2 - D1-F1 - D1-A1 - Blast/Prep For Stems & Wings
CON-17970	S2 - D1-F1 - D1-A1 - Form 1S Stems/Wings/Backwall		3 11-Mar-27	15-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - D1-F1 - D1-A1 - Form 1S Stems/Wings/Backwall
CON-18070	S2 - D1-F1 - D1-A1 - Place Stem & Wing Rebar		3 16-Mar-27	18-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - D1-F1 - D1-A1 - Place Stem & Wing Rebar
CON-18210	S2 - D1-F1 - D1-A1 - Form 2S Stems & Wings		2 19-Mar-27	22-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - D1-F1 - D1-A1 - Form 2S Stems & Wings
CON-18270	S2 - D1-F1 - D1-A1 - Place Stem & Wing Concrete		1 23-Mar-27	23-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - D1-F1 - D1-A1 - Place Stem & Wing Concrete
CON-18340	S2 - D1-F1 - D1-A1 - Cure Stem & Wing Concrete		7 24-Mar-27	30-Mar-27	5609 - 7CD [P]	S2 - D1-F1 - D1-A1 - Cure Stem & Wing Concrete
CON-18350	S2 - D1-F1 - D1-A1 - Strip Stem & Wing Forms / Rough Surface Finish		2 24-Mar-27	25-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - D1-F1 - D1-A1 - Strip Stem & Wing Forms / Rough Surface Finish
CON-18360	S2 - D1-F1 - D1-A1 - Backfill		1 25-Mar-27	26-Mar-27	5609 - SWD, Hol	S2 - D1-F1 - D1-A1 - Backfill
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S | Subpart D1-B2			1 15-Feb-27	08-Mar-27		Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S | Subpart D1-B2
CON-17000	S2 - D1-F1 - D1-B2 - Prep Work Pad For Type 2 Shell		1 05-Feb-27	05-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - D1-F1 - D1-B2 - Prep Work Pad For Type 2 Shell
CON-17080	S2 - D1-F1 - D1-B2 - Install CIDH Shell(s)		4 08-Feb-27	11-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - D1-F1 - D1-B2 - Install CIDH Shell(s)
CON-17110	S2 - D1-F1 - D1-B2 - Cure Shell		7 12-Feb-27	18-Feb-27	5609 - 7CD [P]	S2 - D1-F1 - D1-B2 - Cure Shell
CON-17120	S2 - D1-F1 - D1-B2 - Prep Transition Zone/Set Column Cap & Guy		4 12-Feb-27	18-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - D1-F1 - D1-B2 - Prep Transition Zone/Set Column Cap & Guy
CON-17300	S2 - D1-F1 - D1-B2 - Place Transition Zone Concrete		1 19-Feb-27	19-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - D1-F1 - D1-B2 - Place Transition Zone Concrete
CON-17330	S2 - D1-F1 - D1-B2 - Cure Transition Zone Concrete		7 20-Feb-27	26-Feb-27	5609 - 7CD [P]	S2 - D1-F1 - D1-B2 - Cure Transition Zone Concrete
CON-17340	S2 - D1-F1 - D1-B2 - Form Column		3 22-Feb-27	24-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - D1-F1 - D1-B2 - Form Column
CON-17450	S2 - D1-F1 - D1-B2 - Connect Thermal Control System		1 25-Feb-27	25-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - D1-F1 - D1-B2 - Connect Thermal Control System
CON-17570	S2 - D1-F1 - D1-B2 - Place Column Concrete		1 01-Mar-27	01-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S2 - D1-F1 - D1-B2 - Place Column Concrete

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Update 20-C

ATMP Rdwy Imp | Baseline Schedule | UP20 - Partial Relief of
FIFA FW Over Sep / Cent

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-26620	S2 - D1-F1 - D1-A7 - Strip Footing Forms/Dowel Template	1	20-May-26	20-May-26	5609 - SWD, Hol	S2 - D1-F1 - D1-A7 - Strip Footing Forms/Dowel Template
CON-26630	S2 - D1-F1 - D1-A7 - Blast/Pump For Stems & Wings	1	21-May-26	21-May-26	5609 - SWD, Hol	S2 - D1-F1 - D1-A7 - Blast/Pump For Stems & Wings
CON-26640	S2 - D1-F1 - D1-A7 - Form 15 Stems/Wings/Backwall	3	22-May-26	27-May-26	5609 - SWD, Hol	S2 - D1-F1 - D1-A7 - Form 15 Stems/Wings/Backwall
CON-26650	S2 - D1-F1 - D1-A7 - Place Stem & Wing Rebar	3	28-May-26	01-Jun-26	5609 - SWD, Hol	S2 - D1-F1 - D1-A7 - Place Stem & Wing Rebar
CON-26660	S2 - D1-F1 - D1-A7 - Form 25 Stems & Wings	2	03-Jun-26	03-Jun-26	5609 - SWD, Hol	S2 - D1-F1 - D1-A7 - Form 25 Stems & Wings
CON-26670	S2 - D1-F1 - D1-A7 - Place Stem & Wing Concrete	1	04-Jun-26	04-Jun-26	5609 - SWD, Hol	S2 - D1-F1 - D1-A7 - Place Stem & Wing Concrete
CON-26680	S2 - D1-F1 - D1-A7 - Cure Stem & Wing Concrete	7	10-Jun-26	15-Jun-26	5609 - TCD PJ	S2 - D1-F1 - D1-A7 - Cure Stem & Wing Concrete
CON-26690	S2 - D1-F1 - D1-A7 - Strip Stem & Wing Forms / Rough Surface Finish	2	16-Jun-26	15-Jun-26	5609 - SWD, Hol	S2 - D1-F1 - D1-A7 - Strip Stem & Wing Forms / Rough Surface Finish
CON-26910	S2 - D1-F1 - D1-A7 - Backfill	1	16-Jun-26	16-Jun-26	5609 - SWD, Hol	S2 - D1-F1 - D1-A7 - Backfill
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | Sup						
CON-18700	S2 - D1-F1 - FW - Install Girders/Bents/Bent Caps/Posts E Side Of Sepulveda	5	26-Nov-26	26-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - D1-F1 - FW - Install Girders/Bents/Bent Caps/Posts E Side Of Sepulveda
CON-18800	S2 - D1-F1 - FW - Install Transverse FW Beams Over NB Sepulveda & Median	1	23-Jan-27	23-Jan-27	5609 - Weekends, TDay, Xmas, WC, Oly	S2 - D1-F1 - FW - Install Transverse FW Beams Over NB Sepulveda & Median
CON-18940	S2 - D1-F1 - FW - Install Girders/Bents/Bent Caps/Posts W Side Of Sepulveda	5	26-Nov-26	21-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - D1-F1 - FW - Install Girders/Bents/Bent Caps/Posts W Side Of Sepulveda
CON-18950	S2 - D1-F1 - FW - Install Transverse FW Beams Over SB Sepulveda & Median	1	03-Apr-27	03-Apr-27	5609 - Weekends, TDay, Xmas, WC, Oly	S2 - D1-F1 - FW - Install Transverse FW Beams Over SB Sepulveda & Median
CON-41330	S2 - D1-F1 - FW - Remove Falsework Over NB Sepulveda	2	18-Sep-27	19-Sep-27	5609 - Weekends, TDay, Xmas, WC, Oly	S2 - D1-F1 - FW - Remove Falsework Over NB Sepulveda
CON-41340	S2 - D1-F1 - FW - Remove Falsework Over SB Sepulveda inc Temp Bar Placement	2	25-Sep-27	26-Sep-27	5609 - Weekends, TDay, Xmas, WC, Oly	S2 - D1-F1 - FW - Remove Falsework Over SB Sepulveda inc Temp Bar Placement
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | Sup | Soff & Stms						
CON-19020	S2 - D1-F1 - S&S - Install Soffit & Safety Rail Span 3 Over NB Sepulveda	1	24-Jan-27	24-Jan-27	5609 - Weekends, TDay, Xmas, WC, Oly	S2 - D1-F1 - S&S - Install Soffit & Safety Rail Span 3 Over NB Sepulveda
CON-19110	S2 - D1-F1 - S&S - Form Exterior Girder & OH Span 3	3	25-Jan-27	27-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - D1-F1 - S&S - Form Exterior Girder & OH Span 3
CON-18800	S2 - D1-F1 - S&S - Install Soffit & Safety Rail Span 2 Over SB Sepulveda	1	04-Apr-27	04-Apr-27	5609 - Weekends, TDay, Xmas, WC, Oly	S2 - D1-F1 - S&S - Install Soffit & Safety Rail Span 2 Over SB Sepulveda
CON-19140	S2 - D1-F1 - S&S - Form Exterior Girder & OH Spans 1-2	8	05-Apr-27	14-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - D1-F1 - S&S - Form Exterior Girder & OH Spans 1-2
CON-54341	S2 - D1-F1 - S&S - Install Diaphragm Bearing Pads @ D1-A1 & D1-A7	8	05-Apr-27	14-Apr-27	5609 - SWD, Hol	S2 - D1-F1 - S&S - Install Diaphragm Bearing Pads @ D1-A1 & D1-A7
CON-19200	S2 - D1-F1 - S&S - Place Soffit Rebar	8	15-Apr-27	25-Apr-27	5609 - SWD, Hol	S2 - D1-F1 - S&S - Place Soffit Rebar
CON-19250	S2 - D1-F1 - S&S - Place Stem Rebar	8	21-Apr-27	30-Apr-27	5609 - SWD, Hol	S2 - D1-F1 - S&S - Place Stem Rebar
CON-19320	S2 - D1-F1 - S&S - Install PT Ducts	4	27-Apr-27	30-Apr-27	5609 - SWD, Hol	S2 - D1-F1 - S&S - Install PT Ducts
CON-19410	S2 - D1-F1 - S&S - Form Interior Girder & Walkways	18	03-May-27	26-May-27	5609 - SWD, Hol	S2 - D1-F1 - S&S - Form Interior Girder & Walkways
CON-19540	S2 - D1-F1 - S&S - Form Diaphragms & Blockouts	8	21-May-27	02-Jun-27	5609 - SWD, Hol	S2 - D1-F1 - S&S - Form Diaphragms & Blockouts
CON-19550	S2 - D1-F1 - S&S - Place Soffit & Stem Concrete	2	03-Jun-27	04-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - D1-F1 - S&S - Place Soffit & Stem Concrete
CON-19670	S2 - D1-F1 - S&S - Cure Soffit & Stem Concrete	7	05-Jun-27	11-Jun-27	5609 - TCD PJ	S2 - D1-F1 - S&S - Cure Soffit & Stem Concrete
CON-19880	S2 - D1-F1 - S&S - Strip Interior Girder Forms & Walkways	11	07-Jun-27	21-Jun-27	5609 - SWD, Hol	S2 - D1-F1 - S&S - Strip Interior Girder Forms & Walkways
CON-19950	S2 - D1-F1 - S&S - Strip Diaphragms	7	15-Jun-27	22-Jun-27	5609 - SWD, Hol	S2 - D1-F1 - S&S - Strip Diaphragms
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | Sup | Deck						
CON-20190	S2 - D1-F1 - DECK - Form Load Deck	13	24-Jun-27	13-Jul-27	5609 - SWD, Hol	S2 - D1-F1 - DECK - Form Load Deck
CON-20160	S2 - D1-F1 - DECK - Form EOD	11	14-Jul-27	25-Jul-27	5609 - SWD, Hol	S2 - D1-F1 - DECK - Form EOD
CON-20170	S2 - D1-F1 - DECK - Install Sorel Rails & Run-Offs	14	15-Jul-27	09-Aug-27	5609 - SWD, Hol	S2 - D1-F1 - DECK - Install Sorel Rails & Run-Offs
CON-20310	S2 - D1-F1 - DECK - Place Deck Rebar	8	20-Jul-27	05-Aug-27	5609 - SWD, Hol	S2 - D1-F1 - DECK - Place Deck Rebar
CON-20330	S2 - D1-F1 - DECK - Setup Bridge Finishing Machine & Work Bridges	1	04-Aug-27	04-Aug-27	5609 - SWD, Hol	S2 - D1-F1 - DECK - Setup Bridge Finishing Machine & Work Bridges
CON-20370	S2 - D1-F1 - DECK - Dry-run Bridge Finishing Machine	1	06-Aug-27	06-Aug-27	5609 - SWD, Hol	S2 - D1-F1 - DECK - Dry-run Bridge Finishing Machine
CON-20380	S2 - D1-F1 - DECK - Place Bridge Deck Concrete	1	09-Aug-27	09-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - D1-F1 - DECK - Place Bridge Deck Concrete
CON-20390	S2 - D1-F1 - DECK - Cure Bridge Deck Concrete	7	10-Aug-27	16-Aug-27	5609 - TCD PJ	S2 - D1-F1 - DECK - Cure Bridge Deck Concrete
CON-20400	S2 - D1-F1 - DECK - Strip Sorel Rails & EOD	3	17-Aug-27	19-Aug-27	5609 - SWD, Hol	S2 - D1-F1 - DECK - Strip Sorel Rails & EOD
CON-20411	S2 - D1-F1 - DECK - Strip Ext Girder & OH	12	19-Aug-27	03-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - D1-F1 - DECK - Strip Ext Girder & OH
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | Sup | PT & BWs						
CON-48421	S2 - D1-F1 - PT - Install PT Stems	4	31-Aug-27	03-Sep-27	5609 - SWD, Hol	S2 - D1-F1 - PT - Install PT Stems
CON-48431	S2 - D1-F1 - PT - Stress & Lock-off	3	07-Sep-27	08-Sep-27	5609 - SWD, Hol	S2 - D1-F1 - PT - Stress & Lock-off
CON-48441	S2 - D1-F1 - PT - Grout PT Ducts	2	10-Sep-27	13-Sep-27	5609 - SWD, Hol	S2 - D1-F1 - PT - Grout PT Ducts
CON-48451	S2 - D1-F1 - PT - FFW/PT Blockouts	3	14-Sep-27	16-Sep-27	5609 - SWD, Hol	S2 - D1-F1 - PT - FFW/PT Blockouts
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | Sup | BW @ D1-A1						
CON-48591	S2 - A-F8 - PT - Place Backwall Rebar D1-A1	1	17-Sep-27	17-Sep-27	5609 - SWD, Hol	S2 - A-F8 - PT - Place Backwall Rebar D1-A1
CON-48601	S2 - A-F8 - PT - Form 25 Backwall D1-A1	1	20-Sep-27	20-Sep-27	5609 - SWD, Hol	S2 - A-F8 - PT - Form 25 Backwall D1-A1
CON-48611	S2 - A-F8 - PT - Place Backwall Concrete D1-A1	1	21-Sep-27	21-Sep-27	5609 - SWD, Hol	S2 - A-F8 - PT - Place Backwall Concrete D1-A1
CON-48621	S2 - A-F8 - PT - Cure Backwall Concrete D1-A1	7	22-Sep-27	28-Sep-27	5609 - TCD PJ	S2 - A-F8 - PT - Cure Backwall Concrete D1-A1
CON-48631	S2 - A-F8 - PT - Strip Backwall Forms/Clean Bridge Seal 1 Day Minimum Removal D1-A1	1	29-Sep-27	29-Sep-27	5609 - SWD, Hol	S2 - A-F8 - PT - Strip Backwall Forms/Clean Bridge Seal 1 Day Minimum Removal D1-A1
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | Sup | BW @ D1-A7						
CON-48501	S2 - A-F8 - PT - Place Backwall Rebar D1-A7	1	20-Sep-27	20-Sep-27	5609 - SWD, Hol	S2 - A-F8 - PT - Place Backwall Rebar D1-A7
CON-48511	S2 - A-F8 - PT - Form 25 Backwall D1-A7	1	21-Sep-27	21-Sep-27	5609 - SWD, Hol	S2 - A-F8 - PT - Form 25 Backwall D1-A7

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-48521	S2 - A-F8 - PT - Place Backwall Concrete D1-A7		22-Sep-27	22-Sep-27	5609 - SWD, Hol	S2 - A-F8 - PT - Place Backwall Concrete D1-A7
CON-48531	S2 - A-F8 - PT - Cure Backwall Concrete D1-A7		23-Sep-27	23-Sep-27	5609 - TCD [P]	S2 - A-F8 - PT - Cure Backwall Concrete D1-A7
CON-48541	S2 - A-F8 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum		30-Sep-27	30-Sep-27	5609 - SWD, Hol	S2 - A-F8 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum
Const [S12] Sep Access [Seg D] Bridge Sta 24+97 to Sta 24+97 [Fr D1-F1] Finish						S2 - D1-F1 - FRP Bridge Rail
CON-10780	S2 - D1-F1 - FRP Bridge Rail		27-Sep-27	27-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - D1-F1 - FRP Bridge Rail
CON-15230	S2 - D1-F1 - FRP Approach Slab D1-A7		03-Nov-27	09-Nov-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - D1-F1 - FRP Approach Slab D1-A7
CON-15220	S2 - D1-F1 - FRP Approach Slab D1-A1		02-Dec-27	09-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - D1-F1 - FRP Approach Slab D1-A1
Const [S12] Sep Access [Seg D] Retained Fill Sta 24+97 to Sta 28+23			29-Jun-26	15-Dec-27		S2 - D1-F1 - FRP Approach Slab D1-A1
Const [S12] Sep Access [Seg D] Ret Fill Sta 24+97 to 28+23 [Wall D-3]						S2 - D1-F1 - FRP Approach Slab D1-A1
Const [S12] Sep Access [Seg D] Ret Fill Sta 24+97 to 28+23 [Wall D-3] CIDH						S2 - D1-F1 - FRP Approach Slab D1-A1
CON-12220	S2 - Wall D-3 - Prep Work/Pad for CIDH / Remove Ex Pyments		26-Jun-26	02-Jul-26	5609 - SWD, Hol	S2 - Wall D-3 - Prep Work/Pad for CIDH / Remove Ex Pyments
CON-12230	S2 - Wall D-3 - Install CIDH Shafts		06-Jul-26	10-Aug-26	5609 - SWD, Hol	S2 - Wall D-3 - Install CIDH Shafts
CON-12240	S2 - Wall D-3 - Final Cure CIDH Shafts		11-Aug-26	17-Aug-26	5609 - TCD [P]	S2 - Wall D-3 - Final Cure CIDH Shafts
Const [S12] Sep Access [Seg D] Ret Fill Sta 24+97 to 28+23 [Wall D-3] Section 1						S2 - Wall D-3 - Excavate for Footing Section 1
CON-12250	S2 - Wall D-3 - Excavate for Footing Section 1		18-Aug-26	18-Aug-26	5609 - SWD, Hol	S2 - Wall D-3 - Excavate for Footing Section 1
CON-12280	S2 - Wall D-3 - FRP Footing Section 1		19-Aug-26	21-Aug-26	5609 - SWD, Hol	S2 - Wall D-3 - FRP Footing Section 1
CON-12310	S2 - Wall D-3 - FRP Panels Section 1		24-Aug-26	31-Aug-26	5609 - SWD, Hol	S2 - Wall D-3 - FRP Panels Section 1
CON-12340	S2 - Wall D-3 - Final Cure Section 1		01-Sep-26	01-Sep-26	5609 - TCD [P]	S2 - Wall D-3 - Final Cure Section 1
CON-12370	S2 - Wall D-3 - Strip Panels Section 1		02-Sep-26	03-Sep-26	5609 - SWD, Hol	S2 - Wall D-3 - Strip Panels Section 1
Const [S12] Sep Access [Seg D] Ret Fill Sta 24+97 to 28+23 [Wall D-3] Section 2						S2 - Wall D-3 - Excavate for Footing Section 2
CON-12260	S2 - Wall D-3 - Excavate for Footing Section 2		18-Aug-26	19-Aug-26	5609 - SWD, Hol	S2 - Wall D-3 - Excavate for Footing Section 2
CON-12290	S2 - Wall D-3 - FRP Footing Section 2		24-Aug-26	26-Aug-26	5609 - SWD, Hol	S2 - Wall D-3 - FRP Footing Section 2
CON-12320	S2 - Wall D-3 - FRP Panels Section 2		27-Aug-26	03-Sep-26	5609 - SWD, Hol	S2 - Wall D-3 - FRP Panels Section 2
CON-12350	S2 - Wall D-3 - Final Cure Section 2		04-Sep-26	04-Sep-26	5609 - TCD [P]	S2 - Wall D-3 - Final Cure Section 2
CON-12380	S2 - Wall D-3 - Strip Panels Section 2		08-Sep-26	08-Sep-26	5609 - SWD, Hol	S2 - Wall D-3 - Strip Panels Section 2
Const [S12] Sep Access [Seg D] Ret Fill Sta 24+97 to 28+23 [Wall D-3] Section 3						S2 - Wall D-3 - Excavate for Footing Section 3
CON-12270	S2 - Wall D-3 - Excavate for Footing Section 3		20-Aug-26	20-Aug-26	5609 - SWD, Hol	S2 - Wall D-3 - Excavate for Footing Section 3
CON-12300	S2 - Wall D-3 - FRP Footing Section 3		27-Aug-26	31-Aug-26	5609 - SWD, Hol	S2 - Wall D-3 - FRP Footing Section 3
CON-12330	S2 - Wall D-3 - FRP Panels Section 3		01-Sep-26	09-Sep-26	5609 - SWD, Hol	S2 - Wall D-3 - FRP Panels Section 3
CON-12360	S2 - Wall D-3 - Final Cure Section 3		10-Sep-26	10-Sep-26	5609 - TCD [P]	S2 - Wall D-3 - Final Cure Section 3
CON-12390	S2 - Wall D-3 - Strip Panels Section 3		11-Sep-26	14-Sep-26	5609 - SWD, Hol	S2 - Wall D-3 - Strip Panels Section 3
Const [S12] Sep Access [Seg D] Ret Fill Sta 24+97 to 28+23 [Wall D-3] Section 4						S2 - Wall D-3 - Surface Finish Front Face / Install Arch Finishes
CON-14390	S2 - Wall D-3 - Surface Finish Front Face / Install Arch Finishes		15-Sep-26	21-Sep-26	5609 - SWD, Hol	S2 - Wall D-3 - Surface Finish Front Face / Install Arch Finishes
Const [S12] Sep Access [Seg D] Ret Fill Sta 24+97 to 28+23 [Wall D-4]						S2 - Wall D-4 - Excavate for Footing Section 1
Const [S12] Sep Access [Seg D] Ret Fill Sta 24+97 to 28+23 [Wall D-4] CIDH						S2 - Wall D-4 - Excavate for Footing Section 1
CON-12400	S2 - Wall D-4 - Prep Work/Pad for CIDH / Remove Ex Pyments		14-Jul-26	17-Jul-26	5609 - SWD, Hol	S2 - Wall D-4 - Prep Work/Pad for CIDH / Remove Ex Pyments
CON-12410	S2 - Wall D-4 - Install CIDH Shafts		11-Aug-26	18-Sep-26	5609 - SWD, Hol	S2 - Wall D-4 - Install CIDH Shafts
CON-12420	S2 - Wall D-4 - Final Cure CIDH Shafts		17-Sep-26	23-Sep-26	5609 - TCD [P]	S2 - Wall D-4 - Final Cure CIDH Shafts
Const [S12] Sep Access [Seg D] Ret Fill Sta 24+97 to 28+23 [Wall D-4] Section 1						S2 - Wall D-4 - Excavate for Footing Section 1
CON-12430	S2 - Wall D-4 - Excavate for Footing Section 1		24-Sep-26	24-Sep-26	5609 - SWD, Hol	S2 - Wall D-4 - Excavate for Footing Section 1
CON-12470	S2 - Wall D-4 - FRP Footing Section 1		25-Sep-26	26-Sep-26	5609 - SWD, Hol	S2 - Wall D-4 - FRP Footing Section 1
CON-12510	S2 - Wall D-4 - FRP Panels Section 1		30-Sep-26	07-Oct-26	5609 - SWD, Hol	S2 - Wall D-4 - FRP Panels Section 1
CON-12550	S2 - Wall D-4 - Final Cure Section 1		08-Oct-26	08-Oct-26	5609 - TCD [P]	S2 - Wall D-4 - Final Cure Section 1
CON-12590	S2 - Wall D-4 - Strip Panels Section 1		09-Oct-26	12-Oct-26	5609 - SWD, Hol	S2 - Wall D-4 - Strip Panels Section 1
Const [S12] Sep Access [Seg D] Ret Fill Sta 24+97 to 28+23 [Wall D-4] Section 2						S2 - Wall D-4 - Excavate for Footing Section 2
CON-12440	S2 - Wall D-4 - Excavate for Footing Section 2		25-Sep-26	25-Sep-26	5609 - SWD, Hol	S2 - Wall D-4 - Excavate for Footing Section 2
CON-12480	S2 - Wall D-4 - FRP Footing Section 2		30-Sep-26	02-Oct-26	5609 - SWD, Hol	S2 - Wall D-4 - FRP Footing Section 2
CON-12520	S2 - Wall D-4 - FRP Panels Section 2		05-Oct-26	12-Oct-26	5609 - SWD, Hol	S2 - Wall D-4 - FRP Panels Section 2
CON-12560	S2 - Wall D-4 - Final Cure Section 2		13-Oct-26	13-Oct-26	5609 - TCD [P]	S2 - Wall D-4 - Final Cure Section 2
CON-12590	S2 - Wall D-4 - Strip Panels Section 2		14-Oct-26	15-Oct-26	5609 - SWD, Hol	S2 - Wall D-4 - Strip Panels Section 2
Const [S12] Sep Access [Seg D] Ret Fill Sta 24+97 to 28+23 [Wall D-4] Section 3						S2 - Wall D-4 - Excavate for Footing Section 3
CON-12450	S2 - Wall D-4 - Excavate for Footing Section 3		28-Sep-26	28-Sep-26	5609 - SWD, Hol	S2 - Wall D-4 - Excavate for Footing Section 3
CON-12490	S2 - Wall D-4 - FRP Footing Section 3		05-Oct-26	07-Oct-26	5609 - SWD, Hol	S2 - Wall D-4 - FRP Footing Section 3
CON-12530	S2 - Wall D-4 - FRP Panels Section 3		08-Oct-26	18-Oct-26	5609 - SWD, Hol	S2 - Wall D-4 - FRP Panels Section 3
CON-12570	S2 - Wall D-4 - Final Cure Section 3		16-Oct-26	16-Oct-26	5609 - TCD [P]	S2 - Wall D-4 - Final Cure Section 3
CON-12610	S2 - Wall D-4 - Strip Panels Section 3		19-Oct-26	30-Oct-26	5609 - SWD, Hol	S2 - Wall D-4 - Strip Panels Section 3

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar	
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 24+97 to 28+23 | Wall D-4 | Section 4						
CON-12550	S2 - Wall D-4 - Excavate for Footing Section 4	1	28-Sep-26	29-Sep-26	5609 - SWD, Hol	23-Oct-26, Const | St 2 | Sep Access | Seg D | Ret Fill Sta 24+97 to 28+23 | Wall D-4 | Section 4
CON-12500	S2 - Wall D-4 - FRP Footing Section 4	3	08-Oct-26	12-Oct-26	5609 - SWD, Hol	S2 - Wall D-4 - Excavate for Footing Section 4
CON-12540	S2 - Wall D-4 - FRP Panels Section 4	6	13-Oct-26	20-Oct-26	5609 - SWD, Hol	S2 - Wall D-4 - FRP Footing Section 4
CON-12580	S2 - Wall D-4 - Final Cure Section 4	1	21-Oct-26	21-Oct-26	5609 - TCD (P)	S2 - Wall D-4 - FRP Panels Section 4
CON-12620	S2 - Wall D-4 - Strip Panels Section 4	2	22-Oct-26	23-Oct-26	5609 - SWD, Hol	S2 - Wall D-4 - Final Cure Section 4
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 24+97 to 28+23 | Wall D-4 | Finishes						
CON-14400	S2 - Wall D-4 - Surface Finish Front Face / Install Arch. Finishes	8	28-Oct-26	30-Oct-26	5609 - SWD, Hol	S2 - Wall D-4 - Strip Panels Section 4
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 24+97 to 28+23 | Rdwy Section						
CON-14640	S2 - D 24+97 to 28+23 - Place, Contour & Grade Wall B & Ramp Embankment	23	01-Oct-27	02-Nov-27	5609 - SWD, Hol	23-Oct-26, Const | St 2 | Sep Access | Seg D | Ret Fill Sta 24+97 to 28+23 | Wall D-4 | Finishes
CON-14650	S2 - D 24+97 to 28+23 - Install Drainage Pipe & Appurtenances	5	03-Nov-27	09-Nov-27	5609 - SWD, Hol	S2 - Wall D-4 - Surface Finish Front Face / Install Arch. Finishes
CON-14660	S2 - D 24+97 to 28+23 - Install Drainage Boxes & Appurtenances	10	09-Nov-27	23-Nov-27	5609 - SWD, Hol	15-Dec-27, Const | St 2 | Sep Access | Seg D | Ret Fill Sta 24+97 to 28+23 | Rdwy Section
CON-14700	S2 - D 24+97 to 28+23 - Fine Grade Subgrade	3	23-Nov-27	29-Nov-27	5609 - SWD, Hol	S2 - D 24+97 to 28+23 - Place, Contour & Grade Wall B & Ramp Embankment
CON-14670	S2 - D 24+97 to 28+23 - FRP Traffic Barrier	5	30-Nov-27	07-Dec-27	5609 - SWD, Hol	S2 - D 24+97 to 28+23 - Install Drainage Pipe & Appurtenances
CON-14880	S2 - D 24+97 to 28+23 - Place & Fine Grade Agg Base	4	08-Dec-27	14-Dec-27	5609 - SWD, Hol	S2 - D 24+97 to 28+23 - Install Drainage Boxes & Appurtenances
CON-14890	S2 - D 24+97 to 28+23 - Place HMA Pavement	1	15-Dec-27	15-Dec-27	5609 - SWD, Hol	S2 - D 24+97 to 28+23 - Fine Grade Subgrade
Const | St 2 | Sep Access | Seg D | At Grade Sta 28+23 to Sta 30+21						
CON-31150	S2 - D 28+23 to 30+21 - Remove Pavements & Hardscapes	4	01-Oct-27	06-Oct-27	5609 - SWD, Hol	S2 - D 24+97 to 28+23 - FRP Traffic Barrier
CON-31180	S2 - D 28+23 to 30+21 - Perform Roadway Excavation	4	07-Oct-27	12-Oct-27	5609 - SWD, Hol	S2 - D 24+97 to 28+23 - Place & Fine Grade Agg Base
CON-31170	S2 - D 28+23 to 30+21 - Install Storm Drainage & Appurtenances	20	13-Oct-27	09-Nov-27	5609 - SWD, Hol	S2 - D 24+97 to 28+23 - Place HMA Pavement
CON-31180	S2 - D 28+23 to 30+21 - Grade for Footwork & Barriers	3	10-Nov-27	15-Nov-27	5609 - SWD, Hol	07-Dec-27, Const | St 2 | Sep Access | Seg D | At Grade Sta 28+23 to Sta 30+21
CON-31190	S2 - D 28+23 to 30+21 - Place Flatwork & Barriers	2	16-Nov-27	01-Dec-27	5609 - SWD, Hol	S2 - D 28+23 to 30+21 - Remove Pavements & Hardscapes
CON-31200	S2 - D 28+23 to 30+21 - Prop Subgrade & Place Agg Base	2	02-Dec-27	06-Dec-27	5609 - SWD, Hol	S2 - D 28+23 to 30+21 - Perform Roadway Excavation
CON-31210	S2 - D 28+23 to 30+21 - Place Pavement	1	07-Dec-27	07-Dec-27	5609 - SWD, Hol	S2 - D 28+23 to 30+21 - Install Storm Drainage & Appurtenances
Const | St 2 | Sep Access | Seg D | Retained Fill Sta 30+21 to Sta 34+90						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | CIDH						
CON-11380	S2 - Wall D-5 - Prep Work Pad for CIDH / Remove Ex Pymnts	4	18-Aug-26	24-Aug-26	5609 - SWD, Hol	20-Jul-27, Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90
CON-11390	S2 - Wall D-5 - Install CIDH Shafts	48	23-Nov-26	09-Feb-27	5609 - SWD, Hol	16-Feb-27, Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5
CON-11400	S2 - Wall D-5 - Final Cure CIDH Shafts	7	10-Feb-27	16-Feb-27	5609 - TCD (P)	S2 - Wall D-5 - Prep Work Pad for CIDH / Remove Ex Pymnts
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | Section 1						
CON-11410	S2 - Wall D-5 - Excavate for Footing Section 1	1	08-Jun-27	08-Jun-27	5609 - SWD, Hol	S2 - Wall D-5 - Install CIDH Shafts
CON-11460	S2 - Wall D-5 - FRP Footing Section 1	3	09-Jun-27	11-Jun-27	5609 - SWD, Hol	S2 - Wall D-5 - Final Cure CIDH Shafts
CON-11510	S2 - Wall D-5 - FRP Panels Section 1	6	14-Jun-27	21-Jun-27	5609 - SWD, Hol	24-Jun-27, Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90
CON-11560	S2 - Wall D-5 - Final Cure Section 1	1	22-Jun-27	22-Jun-27	5609 - TCD (P)	S2 - Wall D-5 - Excavate for Footing Section 1
CON-11610	S2 - Wall D-5 - Strip Panels Section 1	2	23-Jun-27	24-Jun-27	5609 - SWD, Hol	S2 - Wall D-5 - FRP Footing Section 1
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | Section 2						
CON-11420	S2 - Wall D-5 - Excavate for Footing Section 2	1	08-Jun-27	09-Jun-27	5609 - SWD, Hol	S2 - Wall D-5 - FRP Panels Section 1
CON-11470	S2 - Wall D-5 - FRP Footing Section 2	3	14-Jun-27	16-Jun-27	5609 - SWD, Hol	S2 - Wall D-5 - Final Cure Section 1
CON-11520	S2 - Wall D-5 - FRP Panels Section 2	6	17-Jun-27	24-Jun-27	5609 - SWD, Hol	S2 - Wall D-5 - Strip Panels Section 1
CON-11570	S2 - Wall D-5 - Final Cure Section 2	1	25-Jun-27	25-Jun-27	5609 - TCD (P)	25-Jun-27, Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90
CON-11620	S2 - Wall D-5 - Strip Panels Section 2	2	26-Jun-27	29-Jun-27	5609 - SWD, Hol	S2 - Wall D-5 - Excavate for Footing Section 2
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | Section 3						
CON-11430	S2 - Wall D-5 - Excavate for Footing Section 3	1	10-Jun-27	10-Jun-27	5609 - SWD, Hol	S2 - Wall D-5 - FRP Footing Section 2
CON-11480	S2 - Wall D-5 - FRP Footing Section 3	3	17-Jun-27	21-Jun-27	5609 - SWD, Hol	S2 - Wall D-5 - FRP Panels Section 2
CON-11530	S2 - Wall D-5 - FRP Panels Section 3	6	22-Jun-27	29-Jun-27	5609 - SWD, Hol	S2 - Wall D-5 - Final Cure Section 2
CON-11580	S2 - Wall D-5 - Final Cure Section 3	1	30-Jun-27	30-Jun-27	5609 - TCD (P)	S2 - Wall D-5 - Strip Panels Section 2
CON-11630	S2 - Wall D-5 - Strip Panels Section 3	2	01-Jul-27	02-Jul-27	5609 - SWD, Hol	26-Jun-27, Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | Section 4						
CON-11440	S2 - Wall D-5 - Excavate for Footing Section 4	1	11-Jun-27	11-Jun-27	5609 - SWD, Hol	16-Feb-27, Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5
CON-11480	S2 - Wall D-5 - FRP Footing Section 4	3	22-Jun-27	24-Jun-27	5609 - SWD, Hol	S2 - Wall D-5 - Excavate for Footing Section 3
CON-11540	S2 - Wall D-5 - FRP Panels Section 4	6	25-Jun-27	02-Jul-27	5609 - SWD, Hol	S2 - Wall D-5 - FRP Footing Section 3
CON-11590	S2 - Wall D-5 - Final Cure Section 4	1	03-Jul-27	03-Jul-27	5609 - TCD (P)	S2 - Wall D-5 - FRP Panels Section 3
CON-11640	S2 - Wall D-5 - Strip Panels Section 4	2	06-Jul-27	07-Jul-27	5609 - SWD, Hol	S2 - Wall D-5 - Final Cure Section 3
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | Section 5						
CON-11450	S2 - Wall D-5 - Excavate for Footing Section 5	1	14-Jun-27	14-Jun-27	5609 - SWD, Hol	S2 - Wall D-5 - Strip Panels Section 4

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar
CON-11500	S2 - Wall D-5 - FRP Footing Section 5	3	25-Jun-27	29-Jun-27	5609 - SWD, Hol
CON-11550	S2 - Wall D-5 - FRP Panels Section 5	6	30-Jun-27	06-Jul-27	5609 - SWD, Hol
CON-11600	S2 - Wall D-5 - Final Cure Section 5	1	09-Jul-27	09-Jul-27	5609 - TCD (P)
CON-11650	S2 - Wall D-5 - Strip Panels Section 5	2	12-Jul-27	13-Jul-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | Section 6		15	15-Jun-27	01-Jul-27	
CON-12630	S2 - Wall D-6 - Excavate for Footing Section 6	1	15-Jun-27	15-Jun-27	5609 - SWD, Hol
CON-12640	S2 - Wall D-6 - FRP Footing Section 6	3	16-Jun-27	19-Jun-27	5609 - SWD, Hol
CON-12650	S2 - Wall D-6 - FRP Panels Section 6	5	21-Jun-27	26-Jun-27	5609 - SWD, Hol
CON-12660	S2 - Wall D-6 - Final Cure Section 6	1	29-Jun-27	29-Jun-27	5609 - TCD (P)
CON-12670	S2 - Wall D-6 - Strip Panels Section 6	2	30-Jun-27	01-Jul-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | Finishings		3	15-Jul-27	20-Jul-27	5609 - SWD, Hol
CON-14370	S2 - Wall D-6 - Surface Finish Front Face / Install Arch Finishings	5	14-Jul-27	20-Jul-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6		25	13-Jun-26	14-Jun-27	
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | CIDH		73	13-Aug-26	27-Nov-26	
CON-12580	S2 - Wall D-6 - Prep Work Pad for CIDH / Remove Ex Prints	4	13-Aug-26	16-Aug-26	5609 - SWD, Hol
CON-12590	S2 - Wall D-6 - Install CIDH Shafts	46	17-Sep-26	20-Nov-26	5609 - SWD, Hol
CON-12700	S2 - Wall D-6 - Final Cure CIDH Shafts	7	21-Nov-26	27-Nov-26	5609 - TCD (P)
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | Section 1		18	03-May-27	18-May-27	
CON-12710	S2 - Wall D-6 - Excavate for Footing Section 1	1	03-May-27	03-May-27	5609 - SWD, Hol
CON-12760	S2 - Wall D-6 - FRP Footing Section 1	3	04-May-27	06-May-27	5609 - SWD, Hol
CON-12810	S2 - Wall D-6 - FRP Panels Section 1	6	07-May-27	14-May-27	5609 - SWD, Hol
CON-12860	S2 - Wall D-6 - Final Cure Section 1	1	15-May-27	15-May-27	5609 - TCD (P)
CON-12910	S2 - Wall D-6 - Strip Panels Section 1	2	17-May-27	18-May-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | Section 2		15	04-May-27	24-May-27	
CON-12720	S2 - Wall D-6 - Excavate for Footing Section 2	1	04-May-27	04-May-27	5609 - SWD, Hol
CON-12770	S2 - Wall D-6 - FRP Footing Section 2	3	07-May-27	11-May-27	5609 - SWD, Hol
CON-12820	S2 - Wall D-6 - FRP Panels Section 2	6	12-May-27	19-May-27	5609 - SWD, Hol
CON-12870	S2 - Wall D-6 - Final Cure Section 2	1	20-May-27	20-May-27	5609 - TCD (P)
CON-12920	S2 - Wall D-6 - Strip Panels Section 2	2	21-May-27	24-May-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | Section 3		17	05-May-27	27-May-27	
CON-12730	S2 - Wall D-6 - Excavate for Footing Section 3	1	05-May-27	05-May-27	5609 - SWD, Hol
CON-12780	S2 - Wall D-6 - FRP Footing Section 3	3	12-May-27	14-May-27	5609 - SWD, Hol
CON-12830	S2 - Wall D-6 - FRP Panels Section 3	6	17-May-27	24-May-27	5609 - SWD, Hol
CON-12880	S2 - Wall D-6 - Final Cure Section 3	1	25-May-27	25-May-27	5609 - TCD (P)
CON-12930	S2 - Wall D-6 - Strip Panels Section 3	2	26-May-27	27-May-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | Section 4		16	06-May-27	02-Jun-27	
CON-12740	S2 - Wall D-6 - Excavate for Footing Section 4	1	06-May-27	06-May-27	5609 - SWD, Hol
CON-12790	S2 - Wall D-6 - FRP Footing Section 4	3	17-May-27	19-May-27	5609 - SWD, Hol
CON-12840	S2 - Wall D-6 - FRP Panels Section 4	6	20-May-27	27-May-27	5609 - SWD, Hol
CON-12890	S2 - Wall D-6 - Final Cure Section 4	1	28-May-27	28-May-27	5609 - TCD (P)
CON-12940	S2 - Wall D-6 - Strip Panels Section 4	2	01-Jun-27	02-Jun-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | Section 5		21	07-May-27	07-Jun-27	
CON-12750	S2 - Wall D-6 - Excavate for Footing Section 5	1	07-May-27	07-May-27	5609 - SWD, Hol
CON-12800	S2 - Wall D-6 - FRP Footing Section 5	3	10-May-27	24-May-27	5609 - SWD, Hol
CON-12850	S2 - Wall D-6 - FRP Panels Section 5	6	25-May-27	30-May-27	5609 - SWD, Hol
CON-12900	S2 - Wall D-6 - Final Cure Section 5	1	31-May-27	31-May-27	5609 - TCD (P)
CON-12950	S2 - Wall D-6 - Strip Panels Section 5	2	01-Jun-27	02-Jun-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | Finishings		5	08-Jun-27	14-Jun-27	5609 - SWD, Hol
CON-14380	S2 - Wall D-6 - Surface Finish Front Face / Install Arch Finishings	5	08-Jun-27	14-Jun-27	5609 - SWD, Hol
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Rdwy Section		46	02-Nov-27	18-Jan-28	
CON-14570	S2 - D 13+98 to 18+62 - Place, Contour & Grade Wall 3F & Ramp Embankment	19	02-Nov-27	31-Dec-27	5609 - SWD, Hol
CON-14580	S2 - D 13+98 to 18+62 - Install Drainage Pipe & Appurtenances	5	02-Dec-27	09-Dec-27	5609 - SWD, Hol
CON-14590	S2 - D 13+98 to 18+62 - Install Drainage Boxes & Appurtenances	10	08-Dec-27	23-Dec-27	5609 - SWD, Hol
CON-14630	S2 - D 13+98 to 18+62 - Final Grade Subgrade	3	27-Dec-27	29-Dec-27	5609 - SWD, Hol
CON-14600	S2 - D 13+98 to 18+62 - FRP Traffic Barrier	6	30-Dec-27	07-Jan-28	5609 - SWD, Hol
CON-14610	S2 - D 13+98 to 18+62 - Place & Final Grade Aggregate	5	10-Jan-28	17-Jan-28	5609 - SWD, Hol

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Update 20-C

ATMP Rdwy Imp | Baseline Schedule | UP20 - Partial Relief of
FIFA FW Over Sep / Cent

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-19340	S2 - D2-F1 - D2-B3L - Cure Column Concrete	7	07-Aug-26	13-Aug-26	5609 - 7CD [P]	S2 - D2-F1 - D2-B3L - Cure Column Concrete
CON-19350	S2 - D2-F1 - D2-B3L - Strip Column Forms 1 Day Minimum Removal	1	14-Aug-26	14-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B3L - Strip Column Forms 1 Day Minimum Removal
CON-18960	S2 - D2-F1 - D2-B3R - Install CIDH Shafts	4	10-Jul-26	15-Jul-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B3R - Install CIDH Shafts
CON-19070	S2 - D2-F1 - D2-B3R - Cure Shaft	7	16-Jul-26	22-Jul-26	5609 - 7CD [P]	S2 - D2-F1 - D2-B3R - Cure Shaft
CON-19080	S2 - D2-F1 - D2-B3R - Prep Transition Zone/Set Column Cage & Guy	4	16-Jul-26	21-Jul-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B3R - Prep Transition Zone/Set Column Cage & Guy
CON-19230	S2 - D2-F1 - D2-B3R - Place Transition Zone Concrete	1	23-Jul-26	23-Jul-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B3R - Place Transition Zone Concrete
CON-19270	S2 - D2-F1 - D2-B3R - Cure Transition Zone Concrete	7	24-Jul-26	30-Jul-26	5609 - 7CD [P]	S2 - D2-F1 - D2-B3R - Cure Transition Zone Concrete
CON-19280	S2 - D2-F1 - D2-B3R - Form Column	3	24-Jul-26	28-Jul-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B3R - Form Column
CON-19360	S2 - D2-F1 - D2-B3R - Connect Thermal Control System	1	23-Jul-26	23-Jul-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B3R - Connect Thermal Control System
CON-19420	S2 - D2-F1 - D2-B3R - Place Column Concrete	1	31-Jul-26	31-Jul-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B3R - Place Column Concrete
CON-19430	S2 - D2-F1 - D2-B3R - Cure Column Concrete	7	01-Aug-26	07-Aug-26	5609 - 7CD [P]	S2 - D2-F1 - D2-B3R - Cure Column Concrete
CON-19470	S2 - D2-F1 - D2-B3R - Strip Column Forms 1 Day Minimum Removal	1	10-Aug-26	10-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B3R - Strip Column Forms 1 Day Minimum Removal
Const | SI 2 |	Seg Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F1 | F & S | Bent D2-B4	25	28-Jul-26	21-Aug-26		Seg Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F1 | F & S | Bent D2-B4
CON-17870	S2 - D2-F1 - D2-B4L - Install CIDH Shafts	4	03-Aug-26	06-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4L - Install CIDH Shafts
CON-18090	S2 - D2-F1 - D2-B4L - Cure Shaft	7	07-Aug-26	13-Aug-26	5609 - 7CD [P]	S2 - D2-F1 - D2-B4L - Cure Shaft
CON-18100	S2 - D2-F1 - D2-B4L - Prep Transition Zone/Set Column Cage & Guy	4	07-Aug-26	12-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4L - Prep Transition Zone/Set Column Cage & Guy
CON-18370	S2 - D2-F1 - D2-B4L - Place Transition Zone Concrete	1	14-Aug-26	14-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4L - Place Transition Zone Concrete
CON-18450	S2 - D2-F1 - D2-B4L - Cure Transition Zone Concrete	7	15-Aug-26	21-Aug-26	5609 - 7CD [P]	S2 - D2-F1 - D2-B4L - Cure Transition Zone Concrete
CON-18480	S2 - D2-F1 - D2-B4L - Form Column	3	17-Aug-26	19-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4L - Form Column
CON-18520	S2 - D2-F1 - D2-B4L - Connect Thermal Control System	1	20-Aug-26	20-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4L - Connect Thermal Control System
CON-18720	S2 - D2-F1 - D2-B4L - Place Column Concrete	1	24-Aug-26	24-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4L - Place Column Concrete
CON-18750	S2 - D2-F1 - D2-B4L - Cure Column Concrete	7	25-Aug-26	31-Aug-26	5609 - 7CD [P]	S2 - D2-F1 - D2-B4L - Cure Column Concrete
CON-18760	S2 - D2-F1 - D2-B4L - Strip Column Forms 1 Day Minimum Removal	1	25-Aug-26	25-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4L - Strip Column Forms 1 Day Minimum Removal
CON-18110	S2 - D2-F1 - D2-B4L - Install CIDH Shafts	4	28-Jul-26	31-Jul-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4L - Install CIDH Shafts
CON-18300	S2 - D2-F1 - D2-B4R - Cure Shaft	7	01-Aug-26	07-Aug-26	5609 - 7CD [P]	S2 - D2-F1 - D2-B4R - Cure Shaft
CON-18310	S2 - D2-F1 - D2-B4R - Prep Transition Zone/Set Column Cage & Guy	4	03-Aug-26	06-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4R - Prep Transition Zone/Set Column Cage & Guy
CON-18560	S2 - D2-F1 - D2-B4R - Place Transition Zone Concrete	1	10-Aug-26	10-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4R - Place Transition Zone Concrete
CON-18640	S2 - D2-F1 - D2-B4R - Cure Transition Zone Concrete	7	11-Aug-26	17-Aug-26	5609 - 7CD [P]	S2 - D2-F1 - D2-B4R - Cure Transition Zone Concrete
CON-18650	S2 - D2-F1 - D2-B4R - Form Column	3	11-Aug-26	13-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4R - Form Column
CON-18770	S2 - D2-F1 - D2-B4R - Connect Thermal Control System	1	14-Aug-26	14-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4R - Connect Thermal Control System
CON-18890	S2 - D2-F1 - D2-B4R - Place Column Concrete	1	18-Aug-26	18-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4R - Place Column Concrete
CON-18920	S2 - D2-F1 - D2-B4R - Cure Column Concrete	7	19-Aug-26	25-Aug-26	5609 - 7CD [P]	S2 - D2-F1 - D2-B4R - Cure Column Concrete
CON-18930	S2 - D2-F1 - D2-B4R - Strip Column Forms 1 Day Minimum Removal	1	19-Aug-26	19-Aug-26	5609 - SWD, Hol	S2 - D2-F1 - D2-B4R - Strip Column Forms 1 Day Minimum Removal
Const | SI 2 |	Seg Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F1 | Sup	143	28-Jul-26	05-Dec-27		Seg Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F1 | Sup
Const | SI 2 |	Seg Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F1 | Sup | FW	143	11-May-27	06-Dec-27	5609 - SWD, Hol	Seg Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F1 | Sup | FW
CON-28130	S2 - D2-F1 - FW - Install Gillage/Bents/Bent Caps/Posts	5	11-May-27	17-May-27	5609 - SWD, Hol	S2 - D2-F1 - FW - Install Gillage/Bents/Bent Caps/Posts
CON-48691	S2 - D2-F1 - FW - Remove Falsework	5	29-Nov-27	06-Dec-27	5609 - SWD, Hol	S2 - D2-F1 - FW - Remove Falsework
Const | SI 2 |	Seg Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F1 | Sup | Soft & Sims	08	18-May-27	23-Aug-27		Seg Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F1 | Sup | Soft & Sims
CON-28140	S2 - D2-F1 - SAS - Install Soft & Safety Rail	11	18-May-27	02-Jun-27	5609 - SWD, Hol	S2 - D2-F1 - SAS - Install Soft & Safety Rail
CON-28190	S2 - D2-F1 - SAS - Form Exterior Order & CH	10	03-Jun-27	15-Jun-27	5609 - SWD, Hol	S2 - D2-F1 - SAS - Form Exterior Order & CH
CON-28361	S2 - D2-F1 - SAS - Install Elastomeric Bearing Pads @ D2-A1	6	03-Jun-27	10-Jun-27	5609 - SWD, Hol	S2 - D2-F1 - SAS - Install Elastomeric Bearing Pads @ D2-A1
CON-28200	S2 - D2-F1 - SAS - Place Soft Rebar	6	17-Jun-27	23-Jun-27	5609 - SWD, Hol	S2 - D2-F1 - SAS - Place Soft Rebar
CON-28210	S2 - D2-F1 - SAS - Place Stem Rebar	6	24-Jun-27	30-Jun-27	5609 - SWD, Hol	S2 - D2-F1 - SAS - Place Stem Rebar
CON-28220	S2 - D2-F1 - SAS - Install PT Ducts	3	01-Jul-27	08-Jul-27	5609 - SWD, Hol	S2 - D2-F1 - SAS - Install PT Ducts
CON-28230	S2 - D2-F1 - SAS - Form Interior Order & Walkways	17	07-Jul-27	24-Jul-27	5609 - SWD, Hol	S2 - D2-F1 - SAS - Form Interior Order & Walkways
CON-28240	S2 - D2-F1 - SAS - Form Diaphragms & Blockouts	7	30-Jul-27	05-Aug-27	5609 - SWD, Hol	S2 - D2-F1 - SAS - Form Diaphragms & Blockouts
CON-28160	S2 - D2-F1 - SAS - Place Soft & Stem Concrete	2	10-Aug-27	11-Aug-27	5609 - SWD, Hol	S2 - D2-F1 - SAS - Place Soft & Stem Concrete
CON-28160	S2 - D2-F1 - SAS - Cure Soft & Stem Concrete	7	12-Aug-27	18-Aug-27	5609 - 7CD [P]	S2 - D2-F1 - SAS - Cure Soft & Stem Concrete
CON-28170	S2 - D2-F1 - SAS - Strip Interior Order Forms & Walkways	6	12-Aug-27	19-Aug-27	5609 - SWD, Hol	S2 - D2-F1 - SAS - Strip Interior Order Forms & Walkways
CON-28180	S2 - D2-F1 - SAS - Strip Diaphragms	2	20-Aug-27	23-Aug-27	5609 - SWD, Hol	S2 - D2-F1 - SAS - Strip Diaphragms
Const | SI 2 |	Seg Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F1 | Sup | Deck	107	29-Aug-27	02-Sep-27		Seg Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F1 | Sup | Deck
CON-28250	S2 - D2-F1 - DECK - Form Lost Deck	3	24-Aug-27	02-Sep-27	5609 - SWD, Hol	S2 - D2-F1 - DECK - Form Lost Deck
CON-28270	S2 - D2-F1 - DECK - Form EOD	4	03-Sep-27	09-Sep-27	5609 - SWD, Hol	S2 - D2-F1 - DECK - Form EOD
CON-28280	S2 - D2-F1 - DECK - Install Sored Rails & Run-Offs	5	07-Sep-27	13-Sep-27	5609 - SWD, Hol	S2 - D2-F1 - DECK - Install Sored Rails & Run-Offs

■ Actual Work
 ■ Critical Remaining Work
 ■ Remaining Work
 ▼ Summary
 ◆ Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-26280	S2 - D2-F1 - DECK - Place Deck Rebar	6	10-Sep-27	17-Sep-27	5609 - SWD, Hol	S2 - D2-F1 - DECK - Place Deck Rebar
CON-26280	S2 - D2-F1 - DECK - Set-Up Bridge Finishing Machine & Work Bridges	1	14-Sep-27	14-Sep-27	5609 - SWD, Hol	S2 - D2-F1 - DECK - Set-Up Bridge Finishing Machine & Work Bridges
CON-26320	S2 - D2-F1 - DECK - Dry-run Bridge Finishing Machine	1	20-Sep-27	20-Sep-27	5609 - SWD, Hol	S2 - D2-F1 - DECK - Dry-run Bridge Finishing Machine
CON-26300	S2 - D2-F1 - DECK - Place Bridge Deck Concrete	1	21-Sep-27	21-Sep-27	5609 - SWD, Hol	S2 - D2-F1 - DECK - Place Bridge Deck Concrete
CON-26310	S2 - D2-F1 - DECK - Cure Bridge Deck Concrete	7	22-Sep-27	28-Sep-27	5609 - TCD [P]	S2 - D2-F1 - DECK - Cure Bridge Deck Concrete
CON-26330	S2 - D2-F1 - DECK - Strip Scaffolding & EOD	3	29-Sep-27	01-Oct-27	5609 - SWD, Hol	S2 - D2-F1 - DECK - Strip Scaffolding & EOD
CON-48761	S2 - D2-F1 - DECK - Strip Exterior Gider & OH Forms	5	01-Oct-27	07-Oct-27	5609 - SWD, Hol	S2 - D2-F1 - DECK - Strip Exterior Gider & OH Forms
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F1 | Sup | PT						
CON-48731	S2 - D2-F1 - PT - Install PT Strands	4	04-Oct-27	07-Oct-27	5609 - SWD, Hol	S2 - D2-F1 - PT - Install PT Strands
CON-48741	S2 - D2-F1 - PT - Stress & Lock-off	3	09-Oct-27	12-Oct-27	5609 - SWD, Hol	S2 - D2-F1 - PT - Stress & Lock-off
CON-48751	S2 - D2-F1 - PT - Grout PT Ducts	2	13-Oct-27	14-Oct-27	5609 - SWD, Hol	S2 - D2-F1 - PT - Grout PT Ducts
CON-48771	S2 - D2-F1 - PT - FIPIS PT Blockouts	8	15-Oct-27	19-Oct-27	5609 - SWD, Hol	S2 - D2-F1 - PT - FIPIS PT Blockouts
CON-48801	S2 - D2-F1 - PT - Place Backwall Rebar D2-A1	1	20-Oct-27	20-Oct-27	5609 - SWD, Hol	S2 - D2-F1 - PT - Place Backwall Rebar D2-A1
CON-48811	S2 - D2-F1 - PT - Form 2S Backwall D2-A1	1	21-Oct-27	21-Oct-27	5609 - SWD, Hol	S2 - D2-F1 - PT - Form 2S Backwall D2-A1
CON-48821	S2 - D2-F1 - PT - Place Backwall Concrete D2-A1	1	22-Oct-27	22-Oct-27	5609 - SWD, Hol	S2 - D2-F1 - PT - Place Backwall Concrete D2-A1
CON-48831	S2 - D2-F1 - PT - Cure Backwall Concrete D2-A1	7	23-Oct-27	29-Oct-27	5609 - TCD [P]	S2 - D2-F1 - PT - Cure Backwall Concrete D2-A1
CON-48841	S2 - D2-F1 - PT - Strip Backwall Form/Clean Bridge Seal 1 Day Minimum Removal D2-A1	1	01-Nov-27	01-Nov-27	5609 - SWD, Hol	S2 - D2-F1 - PT - Strip Backwall Form/Clean Bridge Seal 1 Day Minimum Removal D2-A1
Seg Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | F & S						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | F & S						
CON-17230	S2 - D2-F2 - D2-85 - Install CDH Shafts	4	27-Mar-28	01-Apr-28	5609 - SWD, Hol	S2 - D2-F2 - D2-85 - Install CDH Shafts
CON-17250	S2 - D2-F2 - D2-85 - Cure Shaft	7	08-Apr-28	08-Apr-28	5609 - TCD [P]	S2 - D2-F2 - D2-85 - Cure Shaft
CON-17380	S2 - D2-F2 - D2-85 - Prep Transition Zone/Set Column Cage & Guy	4	02-Apr-28	07-Apr-28	5609 - SWD, Hol	S2 - D2-F2 - D2-85 - Prep Transition Zone/Set Column Cage & Guy
CON-17640	S2 - D2-F2 - D2-85 - Place Transition Zone Concrete	1	09-Apr-28	09-Apr-28	5609 - SWD, Hol	S2 - D2-F2 - D2-85 - Place Transition Zone Concrete
CON-17660	S2 - D2-F2 - D2-85 - Cure Transition Zone Concrete	7	10-Apr-28	16-Apr-28	5609 - TCD [P]	S2 - D2-F2 - D2-85 - Cure Transition Zone Concrete
CON-17670	S2 - D2-F2 - D2-85 - Form Column	3	10-Apr-28	14-Apr-28	5609 - SWD, Hol	S2 - D2-F2 - D2-85 - Form Column
CON-17820	S2 - D2-F2 - D2-85 - Connect Thermal Control System	*	15-Apr-28	15-Apr-28	5609 - SWD, Hol	S2 - D2-F2 - D2-85 - Connect Thermal Control System
CON-17890	S2 - D2-F2 - D2-85 - Place Column Concrete	*	17-Apr-28	17-Apr-28	5609 - SWD, Hol	S2 - D2-F2 - D2-85 - Place Column Concrete
CON-18020	S2 - D2-F2 - D2-85 - Cure Column Concrete	*	18-Apr-28	24-Apr-28	5609 - TCD [P]	S2 - D2-F2 - D2-85 - Cure Column Concrete
CON-18030	S2 - D2-F2 - D2-85 - Strip Column Forms 1 Day Minimum Removal	*	20-Apr-28	20-Apr-28	5609 - SWD, Hol	S2 - D2-F2 - D2-85 - Strip Column Forms 1 Day Minimum Removal
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | Sup						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | Sup						
CON-20420	S2 - D2-F2a - FW - Install Collage/Bents/Bent Caps/Posts/Stingers	5	22-Jan-27	26-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Chr	S2 - D2-F2a - FW - Install Collage/Bents/Bent Caps/Posts/Stingers
CON-48791	S2 - D2-F2a - FW - Remove Fabricwork	5	02-Jan-29	06-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Chr	S2 - D2-F2a - FW - Remove Fabricwork
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | Sup | Soil & Stone						
CON-20430	S2 - D2-F2a - S&S - Install Soffit & Safety Rail	11	29-Jan-27	12-Feb-27	5609 - SWD, Hol	S2 - D2-F2a - S&S - Install Soffit & Safety Rail
CON-20480	S2 - D2-F2a - S&S - Form Exterior Gider & OH	11	16-Feb-27	02-Mar-27	5609 - SWD, Hol	S2 - D2-F2a - S&S - Form Exterior Gider & OH
CON-20490	S2 - D2-F2a - S&S - Place Soffit Rebar	2	22-Feb-27	23-Feb-27	5609 - SWD, Hol	S2 - D2-F2a - S&S - Place Soffit Rebar
CON-20540	S2 - D2-F2a - S&S - Place Stem Rebar	5	24-Feb-27	02-Mar-27	5609 - SWD, Hol	S2 - D2-F2a - S&S - Place Stem Rebar
CON-20590	S2 - D2-F2a - S&S - Install PT Ducts	4	01-Mar-27	04-Mar-27	5609 - SWD, Hol	S2 - D2-F2a - S&S - Install PT Ducts
CON-20590	S2 - D2-F2a - S&S - Form Interior Gider & Walkways	18	05-Mar-27	23-Mar-27	5609 - SWD, Hol	S2 - D2-F2a - S&S - Form Interior Gider & Walkways
CON-20590	S2 - D2-F2a - S&S - Form Diaphragms & Blockouts	3	20-Mar-27	31-Mar-27	5609 - SWD, Hol	S2 - D2-F2a - S&S - Form Diaphragms & Blockouts
CON-20600	S2 - D2-F2a - S&S - Place Soffit & Stem Concrete	2	01-Apr-27	02-Apr-27	5609 - SWD, Hol	S2 - D2-F2a - S&S - Place Soffit & Stem Concrete
CON-20810	S2 - D2-F2a - S&S - Cure Soffit & Stem Concrete	7	03-Apr-27	09-Apr-27	5609 - TCD [P]	S2 - D2-F2a - S&S - Cure Soffit & Stem Concrete
CON-20820	S2 - D2-F2a - S&S - Strip Interior Gider Forms & Walkways	8	05-Apr-27	14-Apr-27	5609 - SWD, Hol	S2 - D2-F2a - S&S - Strip Interior Gider Forms & Walkways
CON-20860	S2 - D2-F2a - S&S - Strip Diaphragms	2	15-Apr-27	16-Apr-27	5609 - SWD, Hol	S2 - D2-F2a - S&S - Strip Diaphragms
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | Sup | Deck						
CON-20870	S2 - D2-F2a - DECK - Form Lost Deck	10	19-Apr-27	30-Apr-27	5609 - SWD, Hol	S2 - D2-F2a - DECK - Form Lost Deck
CON-20700	S2 - D2-F2a - DECK - Form EOD	5	03-May-27	07-May-27	5609 - SWD, Hol	S2 - D2-F2a - DECK - Form EOD
CON-20710	S2 - D2-F2a - DECK - Install Scaffolding & Run-Offs	5	04-May-27	10-May-27	5609 - SWD, Hol	S2 - D2-F2a - DECK - Install Scaffolding & Run-Offs
CON-20750	S2 - D2-F2a - DECK - Place Deck Rebar	5	10-May-27	15-May-27	5609 - SWD, Hol	S2 - D2-F2a - DECK - Place Deck Rebar
CON-20750	S2 - D2-F2a - DECK - Setup Bridge Finishing Machine & Work Bridges	1	11-May-27	11-May-27	5609 - SWD, Hol	S2 - D2-F2a - DECK - Setup Bridge Finishing Machine & Work Bridges
CON-20790	S2 - D2-F2a - DECK - Dry-run Bridge Finishing Machine	1	18-May-27	18-May-27	5609 - SWD, Hol	S2 - D2-F2a - DECK - Dry-run Bridge Finishing Machine
CON-20800	S2 - D2-F2a - DECK - Place Bridge Deck Concrete	1	19-May-27	19-May-27	5609 - SWD, Hol	S2 - D2-F2a - DECK - Place Bridge Deck Concrete
CON-20810	S2 - D2-F2a - DECK - Cure Bridge Deck Concrete	7	20-May-27	26-May-27	5609 - TCD [P]	S2 - D2-F2a - DECK - Cure Bridge Deck Concrete
CON-20820	S2 - D2-F2a - DECK - Strip Scaffolding & EOD	2	27-May-27	28-May-27	5609 - SWD, Hol	S2 - D2-F2a - DECK - Strip Scaffolding & EOD

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar
CON-20830	S2 - D2-F2b - DECK - Strip CJ Bulkheads	1	01-Jun-27	01-Jun-27	5609 - SWD, Hal
Const | S2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b					
CON-20830	S2 - D2-F2b - DECK - Strip CJ Bulkheads	709	05-Mar-29	15-Jan-29	5609 - SWD, Hal
Const | S2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b | F & S					
CON-20830	S2 - D2-F2b - DECK - Strip CJ Bulkheads	30	05-Mar-29	15-Apr-26	5609 - SWD, Hal
CON-20830	S2 - D2-F2b - DECK - Strip CJ Bulkheads	22	17-Mar-26	15-Apr-26	5609 - SWD, Hal
CON-20840	S2 - D2-F2b - D2-B6 - Cure Shaft	7	21-Mar-26	27-Mar-26	5609 - 7CD [P]
CON-20850	S2 - D2-F2b - D2-B6 - Prep Transition Zone/Set Column Cage & Guy	4	23-Mar-26	26-Mar-26	5609 - SWD, Hal
CON-20860	S2 - D2-F2b - D2-B6 - Place Transition Zone Concrete	1	30-Mar-26	30-Mar-26	5609 - SWD, Hal
CON-20870	S2 - D2-F2b - D2-B6 - Cure Transition Zone Concrete	7	31-Mar-26	06-Apr-26	5609 - 7CD [P]
CON-20880	S2 - D2-F2b - D2-B6 - Form Column	3	31-Mar-26	02-Apr-26	5609 - SWD, Hal
CON-20890	S2 - D2-F2b - D2-B6 - Connect Thermal Control System	1	03-Apr-26	03-Apr-26	5609 - SWD, Hal
CON-20900	S2 - D2-F2b - D2-B6 - Place Column Concrete	4	07-Apr-26	07-Apr-26	5609 - SWD, Hal
CON-20910	S2 - D2-F2b - D2-B6 - Cure Column Concrete	7	08-Apr-26	14-Apr-26	5609 - 7CD [P]
CON-20910	S2 - D2-F2b - D2-B6 - Strip Column Forms 1 Day Minimum Removal	1	15-Apr-26	15-Apr-26	5609 - SWD, Hal
Const | S2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b | F & S | Bent D2-F2b					
CON-20930	S2 - D2-F2b - D2-B7 - Install CIDH Shaft(s)	4	05-Mar-26	10-Mar-26	5609 - SWD, Hal
CON-20940	S2 - D2-F2b - D2-B7 - Cure Shaft	7	11-Mar-26	17-Mar-26	5609 - 7CD [P]
CON-20950	S2 - D2-F2b - D2-B7 - Prep Transition Zone/Set Column Cage & Guy	4	11-Mar-26	15-Mar-26	5609 - SWD, Hal
CON-20960	S2 - D2-F2b - D2-B7 - Place Transition Zone Concrete	1	18-Mar-26	18-Mar-26	5609 - SWD, Hal
CON-20970	S2 - D2-F2b - D2-B7 - Cure Transition Zone Concrete	7	19-Mar-26	25-Mar-26	5609 - 7CD [P]
CON-20980	S2 - D2-F2b - D2-B7 - Form Column	3	19-Mar-26	23-Mar-26	5609 - SWD, Hal
CON-20990	S2 - D2-F2b - D2-B7 - Connect Thermal Control System	1	24-Mar-26	24-Mar-26	5609 - SWD, Hal
CON-21000	S2 - D2-F2b - D2-B7 - Place Column Concrete	1	26-Mar-26	26-Mar-26	5609 - SWD, Hal
CON-21010	S2 - D2-F2b - D2-B7 - Cure Column Concrete	7	27-Mar-26	02-Apr-26	5609 - 7CD [P]
CON-21010	S2 - D2-F2b - D2-B7 - Strip Column Forms 1 Day Minimum Removal	1	23-Apr-26	23-Apr-26	5609 - SWD, Hal
Const | S2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b | Sup					
CON-21030	S2 - D2-F2b - FW - Install Grillage/Bent Caps/Posts/Stingers	8	28-Jan-27	04-Feb-27	5609 - SWD, Hal
CON-21040	S2 - D2-F2b - FW - Remove Falsework	5	08-Jan-29	15-Jan-29	5609 - SWD, Hal
Const | S2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b | Sup | Bent D2-F2b					
CON-21050	S2 - D2-F2b - S4S - Install Soft & Safety Rail	15	05-Feb-27	26-Feb-27	5609 - SWD, Hal
CON-21060	S2 - D2-F2b - S4S - Form Exterior Girder & OH	10	01-Mar-27	22-Mar-27	5609 - SWD, Hal
CON-21070	S2 - D2-F2b - S4S - Place Soft Rebar	8	05-Mar-27	16-Mar-27	5609 - SWD, Hal
CON-21080	S2 - D2-F2b - S4S - Place Stem Rebar	8	17-Mar-27	26-Mar-27	5609 - SWD, Hal
CON-21090	S2 - D2-F2b - S4S - Install PT Ducts	4	25-Mar-27	30-Mar-27	5609 - SWD, Hal
CON-21100	S2 - D2-F2b - S4S - Form Interior Girder & Walkways	22	31-Mar-27	29-Apr-27	5609 - SWD, Hal
CON-21110	S2 - D2-F2b - S4S - Form Diaphragms & Blockouts	3	30-Apr-27	04-May-27	5609 - SWD, Hal
CON-21120	S2 - D2-F2b - S4S - Place Soft & Stem Concrete	2	05-May-27	05-May-27	5609 - SWD, Hal
CON-21130	S2 - D2-F2b - S4S - Cure Soft & Stem Concrete	7	07-May-27	13-May-27	5609 - 7CD [P]
CON-21140	S2 - D2-F2b - S4S - Strip Interior Girder Forms & Walkways	10	07-May-27	20-May-27	5609 - SWD, Hal
CON-21150	S2 - D2-F2b - S4S - Strip Diaphragms	2	21-May-27	24-May-27	5609 - SWD, Hal
Const | S2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b | Sup | Bent D2-F2b					
CON-21160	S2 - D2-F2b - DECK - Form Lost Deck	13	25-May-27	11-Jun-27	5609 - SWD, Hal
CON-21170	S2 - D2-F2b - DECK - Form EOD	8	14-Jun-27	03-Jun-27	5609 - SWD, Hal
CON-21180	S2 - D2-F2b - DECK - Install Sored Rails & Run-Offs	9	15-Jun-27	23-Jun-27	5609 - SWD, Hal
CON-21190	S2 - D2-F2b - DECK - Place Deck Rebar	8	24-Jun-27	06-Jul-27	5609 - SWD, Hal
CON-21200	S2 - D2-F2b - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	24-Jun-27	24-Jun-27	5609 - SWD, Hal
CON-21210	S2 - D2-F2b - DECK - Dry-run Bridge Finishing Machine	1	07-Jul-27	07-Jul-27	5609 - SWD, Hal
CON-21220	S2 - D2-F2b - DECK - Place Bridge Deck Concrete	1	08-Jul-27	08-Jul-27	5609 - SWD, Hal
CON-21230	S2 - D2-F2b - DECK - Cure Bridge Deck Concrete	7	09-Jul-27	15-Jul-27	5609 - 7CD [P]
CON-21240	S2 - D2-F2b - DECK - Strip Sored Rails & EOD	2	16-Jul-27	15-Jul-27	5609 - SWD, Hal
Const | S2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b | Sup | PT					
CON-21250	S2 - D2-F2 - PT - Strip Exterior Girder & OH Forms	6	20-Jul-27	27-Jul-27	5609 - SWD, Hal
CON-21260	S2 - D2-F2 - PT - Install PT Strands	4	23-Jul-27	27-Jul-27	5609 - SWD, Hal
CON-21270	S2 - D2-F2 - PT - Stress & Lock-off	3	28-Jul-27	30-Jul-27	5609 - SWD, Hal
CON-21280	S2 - D2-F2 - PT - Grout PT Ducts	2	02-Aug-27	03-Aug-27	5609 - SWD, Hal
CON-21290	S2 - D2-F2 - PT - FRPS PT Blockouts	5	04-Aug-27	06-Aug-27	5609 - SWD, Hal

■ Actual Work
 ■ Critical Remaining Work
 ■ Summary
 ◆ Remaining Work
 ◆ Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-28430	S2 - Br D2 - D2-F2/D2-F3 - FRP Hinge Lower Seal		10-Aug-27	20-Aug-27	5609 - SWD, Hol	
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3			22-Feb-26	24-Mar-26		
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | F & S			22-Feb-26	24-Mar-26		
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | F & S | Bent D2-B8			22-Feb-26	24-Mar-26		
CON-27430	S2 - D2-F3 - D2-B8 - Install CIDH Shafts		4-Feb-26	26-Feb-26	5609 - SWD, Hol	
CON-27440	S2 - D2-F3 - D2-B8 - Cure Shaft		7-Feb-26	05-Mar-26	5609 - TCD | P	
CON-27450	S2 - D2-F3 - D2-B8 - Prep Transition Zone/Sel Column Cage & Guy		4-Feb-26	04-Mar-26	5609 - SWD, Hol	
CON-27460	S2 - D2-F3 - D2-B8 - Place Transition Zone Concrete		1-Mar-26	05-Mar-26	5609 - SWD, Hol	
CON-27470	S2 - D2-F3 - D2-B8 - Cure Transition Zone Concrete		7-Mar-26	13-Mar-26	5609 - TCD | P	
CON-27480	S2 - D2-F3 - D2-B8 - Form Column		3-Mar-26	11-Mar-26	5609 - SWD, Hol	
CON-27520	S2 - D2-F3 - D2-B8 - Connect Thermal Control System		1-Mar-26	12-Mar-26	5609 - SWD, Hol	
CON-27490	S2 - D2-F3 - D2-B8 - Place Column Concrete		1-Mar-26	10-Mar-26	5609 - SWD, Hol	
CON-27500	S2 - D2-F3 - D2-B8 - Cure Column Concrete		7-Mar-26	23-Mar-26	5609 - TCD | P	
CON-27510	S2 - D2-F3 - D2-B8 - Strip Column Forms 1 Day Minimum Removal		4-Mar-26	24-Mar-26	5609 - SWD, Hol	
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Hinges			25-Oct-27	27-Nov-27		
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Hinge D2-F1/D2-F2			25-Oct-27	27-Nov-27		
CON-20920	S2 - Br D2 - D2-F1/D2-F2 - FRP Hinge Lower Seal		10-Oct-27	02-Nov-27	5609 - SWD, Hol	
CON-20930	S2 - Br D2 - D2-F1/D2-F2 - FRP Hinge Upper Seal		10-Nov-27	17-Nov-27	5609 - SWD, Hol	
CON-20940	S2 - Br D2 - D2-F1/D2-F2 - Cure Hinges		10-Nov-27	27-Nov-27	5609 - TCD | P	
Const | St 2 | Sep Access | Seg E			15-Oct-26	14-Mar-27		
Const | St 2 | Sep Access | Seg E | Retained Fill Sta 13+97 to Sta 17+50			15-Oct-26	14-Mar-27		
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+97 to Sta 17+50 | Wall E-2			03-Aug-26	12-Nov-26		
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Footing A			03-Aug-26	12-Nov-26		
CON-13150	S2 - Wall E-2 - Pig A - Prep Work Pad for CIDH / Remove Ex Pymnts		9-Aug-26	07-Aug-26	5609 - SWD, Hol	
CON-14430	S2 - Wall E-2 - Pig A - Install Isolation Casings		9-Aug-26	14-Aug-26	5609 - SWD, Hol	
CON-13200	S2 - Wall E-2 - Pig A - Install CIDH Shafts		5-Oct-26	28-Oct-26	5609 - SWD, Hol	
CON-13210	S2 - Wall E-2 - Pig A - Cure CIDH Shafts		7-Oct-26	04-Nov-26	5609 - TCD | P	
CON-14510	S2 - Wall E-2 - Pig A - Sandblast CIDH		1-Oct-26	29-Oct-26	5609 - SWD, Hol	
CON-13220	S2 - Wall E-2 - Pig A - Fine Grade for Footing		1-Oct-26	30-Oct-26	5609 - SWD, Hol	
CON-13270	S2 - Wall E-2 - Pig A - FRP Footing		4-Nov-26	10-Nov-26	5609 - SWD, Hol	
CON-14520	S2 - Wall E-2 - Pig A - Backfill to Top of Footing		1-Nov-26	12-Nov-26	5609 - SWD, Hol	
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Footing B			11-Aug-26	07-Dec-26		
CON-46960	S2 - Wall E-2 - Pig B - Prep Work Pad for CIDH / Remove Ex Pymnts		2-Nov-26	12-Nov-26	5609 - SWD, Hol	
CON-46970	S2 - Wall E-2 - Pig B - Install CIDH Shafts		16-Oct-26	20-Nov-26	5609 - SWD, Hol	
CON-46980	S2 - Wall E-2 - Pig B - Cure CIDH Shafts		7-Nov-26	27-Nov-26	5609 - TCD | P	
CON-46990	S2 - Wall E-2 - Pig B - Sandblast CIDH		1-Nov-26	23-Nov-26	5609 - SWD, Hol	
CON-13230	S2 - Wall E-2 - Pig B - Fine Grade		3-Nov-26	30-Nov-26	5609 - SWD, Hol	
CON-13260	S2 - Wall E-2 - Pig B - FRP Footing		3-Dec-26	03-Dec-26	5609 - SWD, Hol	
CON-14530	S2 - Wall E-2 - Pig B - Backfill to Top of Footing		1-Dec-26	07-Dec-26	5609 - SWD, Hol	
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Footing C			10-Aug-26	20-Aug-26		
CON-46930	S2 - Wall E-2 - Pig C - Excavate		2-Aug-26	14-Aug-26	5609 - SWD, Hol	
CON-46940	S2 - Wall E-2 - Pig C - Perform Soil Connection		2-Aug-26	19-Aug-26	5609 - SWD, Hol	
CON-46950	S2 - Wall E-2 - Pig C - Excavate Keyway & Fine Grade		1-Aug-26	19-Aug-26	5609 - SWD, Hol	
CON-13280	S2 - Wall E-2 - Pig C - FRP Footing		4-Aug-26	25-Aug-26	5609 - SWD, Hol	
CON-15180	S2 - Wall E-2 - Pig C - Backfill to Top of Footing		1-Aug-26	25-Aug-26	5609 - SWD, Hol	
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Section 1			13-Nov-26	18-Nov-26		
CON-13320	S2 - Wall E-2 - FRP Panels Section 1		4-Nov-26	18-Nov-26	5609 - SWD, Hol	
CON-13370	S2 - Wall E-2 - Cure Section 1		7-Nov-26	26-Nov-26	5609 - TCD | P	
CON-13420	S2 - Wall E-2 - Strip Panels Section 1		2-Nov-26	23-Nov-26	5609 - SWD, Hol	
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Section 2			13-Nov-26	18-Nov-26		
CON-13350	S2 - Wall E-2 - FRP Panels Section 2		6-Dec-26	18-Dec-26	5609 - SWD, Hol	
CON-13360	S2 - Wall E-2 - Cure Section 2		7-Dec-26	23-Dec-26	5609 - TCD | P	
CON-13430	S2 - Wall E-2 - Strip Panels Section 2		2-Dec-26	23-Dec-26	5609 - SWD, Hol	
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Section 3			23-Dec-26	05-Jan-27		
CON-13340	S2 - Wall E-2 - FRP Panels Section 3		6-Jan-27	05-Jan-27	5609 - SWD, Hol	
CON-13390	S2 - Wall E-2 - Cure Section 3		7-Jan-27	12-Jan-27	5609 - TCD | P	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar
CON-13440	S2 - Wall E-2 - Strip Panels Section 3		2 07-Jan-27	08-Jan-27	5609 - SWD, Hol
Const | S2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Section 4			10 27-Aug-26	10-Sep-26	
CON-13350	S2 - Wall E-2 - FRP Panels Section 4		6 27-Aug-26	03-Sep-26	5609 - SWD, Hol
CON-13400	S2 - Wall E-2 - Cure Section 4		7 04-Sep-26	10-Sep-26	5609 - TCD (P)
CON-13450	S2 - Wall E-2 - Strip Panels Section 4		2 08-Sep-26	09-Sep-26	5609 - SWD, Hol
Const | S2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Finishes			5 11-Jan-27	19-Jan-27	5609 - SWD, Hol
CON-14440	S2 - Wall E-2 - Surface Finish Front Face / Install Arch Finishes		5 13-Jan-27	19-Jan-27	5609 - SWD, Hol
Const | S2 | Sep Access | Seg E | Ret Fill Sta 13+97 to Sta 17+50 | Rdwy Section					5609 - SWD, Hol
CON-14781	S2 - Seg E - 12+50 to 17+63 - Install Retaining Barrier		4 11-Jan-27	14-Jan-27	5609 - SWD, Hol
CON-14780	S2 - Seg E - 12+50 to 17+63 - Place, Contour & Grade Wall BP & Ramp Embankment		12 15-Jan-27	01-Feb-27	5609 - SWD, Hol
CON-14790	S2 - Seg E - 12+50 to 17+63 - Install Drainage Pipe & Appurtenances		5 02-Feb-27	09-Feb-27	5609 - SWD, Hol
CON-14800	S2 - Seg E - 12+50 to 17+63 - Install Drainage Boxes & Appurtenances		10 05-Feb-27	15-Feb-27	5609 - SWD, Hol
CON-14840	S2 - Seg E - 12+50 to 17+63 - Fine Grade Subgrade		3 22-Feb-27	24-Feb-27	5609 - SWD, Hol
CON-14811	S2 - Seg E - 12+50 to 17+63 - Place Curb & Gutter		6 25-Feb-27	24-Mar-27	5609 - SWD, Hol
CON-14820	S2 - Seg E - 12+50 to 17+63 - Place & Fine Grade Agg Base		4 15-Mar-27	10-Mar-27	5609 - SWD, Hol
CON-14830	S2 - Seg E - 12+50 to 17+63 - Place Paved Base Course		1 11-Mar-27	1-Mar-27	5609 - SWD, Hol
CON-14810	S2 - Seg E - 12+50 to 17+63 - FRP Traffic Barrier		4 12-Mar-27	17-Mar-27	5609 - SWD, Hol
Const | S2 | Sep Access | Seg F			309 21-Apr-26	30-Aug-27	
Const | S2 | Sep Access | Seg F | Finishes			15 30-Aug-27	30-Aug-27	5609 - SWD, Hol
CON-17941	S2 - Seg F - 12+91 to 16+45 - Install Street Lighting & OHS Gantries / Signage		8 16-Aug-27	19-Aug-27	5609 - SWD, Hol
CON-17921	S2 - Seg F - 12+91 to 16+45 - Place Wear Course Pavement		2 20-Aug-27	23-Aug-27	5609 - SWD, Hol
CON-17951	S2 - Seg F - 12+91 to 16+45 - Place Paved Mfgs & Signs		5 24-Aug-27	30-Aug-27	5609 - SWD, Hol
Const | S2 | Sep Access | Seg F | Bridge Sta 12+12 to Sta 12+91			282 21-Apr-26	23-Jun-26	
Const | S2 | Sep Access | Seg F | Bridge Sta 12+12 to Sta 12+91 | Fr F-F1 | F & S | Abut A-A5			21-Apr-26	23-Jun-26	
CON-29110	S2 - F-F1 - A-A5F - Prep Work Pad For CIDH		1 21-Apr-26	21-Apr-26	5609 - SWD, Hol
CON-29120	S2 - F-F1 - A-A5F - Install CIDH Shift(s)		7 30-Apr-26	08-May-26	5609 - SWD, Hol
CON-29100	S2 - F-F1 - A-A5F - Cure CIDH		7 09-May-26	15-May-26	5609 - TCD (P)
CON-29560	S2 - F-F1 - A-A5F - Excavate Footing		2 11-May-26	12-May-26	5609 - SWD, Hol
CON-29090	S2 - F-F1 - A-A5F - Prep CIDH For Footing Construction		3 13-May-26	15-May-26	5609 - SWD, Hol
CON-29870	S2 - F-F1 - A-A5F - Form Footing/Dowel Template		3 18-May-26	20-May-26	5609 - SWD, Hol
CON-29980	S2 - F-F1 - A-A5F - Place Rebar		3 21-May-26	26-May-26	5609 - SWD, Hol
CON-29990	S2 - F-F1 - A-A5F - Place Footing Concrete		1 27-May-26	27-May-26	5609 - SWD, Hol
CON-29900	S2 - F-F1 - A-A5F - Cure Footing Concrete		7 28-May-26	03-Jun-26	5609 - TCD (P)
CON-29010	S2 - F-F1 - A-A5F - Strip Footing Forms/Dowel Template		1 28-May-26	29-May-26	5609 - SWD, Hol
CON-29020	S2 - F-F1 - A-A5F - Blast/Prep For Stems & Wings		1 29-May-26	29-May-26	5609 - SWD, Hol
CON-29030	S2 - F-F1 - A-A5F - Form 16 Stems/Wings/Backwall		3 01-Jun-26	03-Jun-26	5609 - SWD, Hol
CON-29040	S2 - F-F1 - A-A5F - Place Stem & Wing Rebar		3 04-Jun-26	08-Jun-26	5609 - SWD, Hol
CON-29050	S2 - F-F1 - A-A5F - Form 25 Stems & Wings		2 09-Jun-26	10-Jun-26	5609 - SWD, Hol
CON-29060	S2 - F-F1 - A-A5F - Place Stem & Wing Concrete		4 11-Jun-26	11-Jun-26	5609 - SWD, Hol
CON-29070	S2 - F-F1 - A-A5F - Cure Stem & Wing Concrete		7 12-Jun-26	18-Jun-26	5609 - TCD (P)
CON-29080	S2 - F-F1 - A-A5F - Strip Stem & Wing Forms / Rough Surface Finish		2 19-Jun-26	22-Jun-26	5609 - SWD, Hol
CON-29950	S2 - F-F1 - A-A5F - Backfill		1 23-Jun-26	23-Jun-26	5609 - SWD, Hol
Const | S2 | Sep Access | Seg F | Bridge Sta 12+12 to Sta 12+91 | Fr F-F1 | Sup			26 23-Jun-26	05-Feb-27	
Const | S2 | Sep Access | Seg F | Bridge Sta 12+12 to Sta 12+91 | Fr F-F1 | Sup | FW			152 23-Jun-26	05-Feb-27	5609 - SWD, Hol
CON-29390	S2 - F-F1 - FW - Install Grillage/Bent/Bent Caps/Posts/Stingers		5 23-Jun-26	29-Jun-26	5609 - SWD, Hol
CON-48401	S2 - F-F1 - FW - Remove Falsework		5 01-Feb-27	05-Feb-27	5609 - SWD, Hol
Const | S2 | Sep Access | Seg F | Bridge Sta 12+12 to Sta 12+91 | Fr F-F1 | Sup | Soft & S/S			28 30-Jun-26	07-Aug-26	
CON-29280	S2 - F-F1 - S-S - Install Soft & Safety Rail		2 30-Jun-26	01-Jul-26	5609 - SWD, Hol
CON-29290	S2 - F-F1 - S-S - Form Exterior Girders & OH		3 02-Jul-26	07-Jul-26	5609 - SWD, Hol
CON-54351	S2 - F-F1 - S-S - Install Elastomeric Bearing Pads @ A-A9		4 03-Jul-26	08-Jul-26	5609 - SWD, Hol
CON-29310	S2 - F-F1 - S-S - Place Soft Rebar		2 09-Jul-26	10-Jul-26	5609 - SWD, Hol
CON-29320	S2 - F-F1 - S-S - Place Stem Rebar		5 13-Jul-26	17-Jul-26	5609 - SWD, Hol
CON-29330	S2 - F-F1 - S-S - Install PT Ducts		4 16-Jul-26	21-Jul-26	5609 - SWD, Hol
CON-29300	S2 - F-F1 - S-S - Form Interior Girders & Walkways		3 22-Jul-26	24-Jul-26	5609 - SWD, Hol
CON-29370	S2 - F-F1 - S-S - Form Diaphragms & Blockouts		3 27-Jul-26	29-Jul-26	5609 - SWD, Hol

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	mainline	Start	Finish	Calendar	
CON-29340	S2 - F-1 - SAS - Place Soft & Stem Concrete	2	30-Jul-26	31-Jul-26	5609 - SWD, Hol	S2 - F-1 - SAS - Place Soft & Stem Concrete
CON-29350	S2 - F-1 - SAS - Cure Soft & Stem Concrete	7	01-Aug-26	07-Aug-26	5609 - TCD [P]	S2 - F-1 - SAS - Cure Soft & Stem Concrete
CON-29380	S2 - F-1 - SAS - Strip Interior Glider Forms & Walkways	2	03-Aug-26	04-Aug-26	5609 - SWD, Hol	S2 - F-1 - SAS - Strip Interior Glider Forms & Walkways
CON-29380	S2 - F-1 - SAS - Strip Diaphragms	2	05-Aug-26	05-Aug-26	5609 - SWD, Hol	S2 - F-1 - SAS - Strip Diaphragms
Const [S12] Sep Access [Seg F] Bridge Sta 12+12 to Sta 12+91 | Fr F-1 | Sup | Deck		4	07-Aug-26	12-Aug-26		15-Sep-26, Const [S12] Sep Access [Seg F] Bridge Sta 12+12 to Sta 12+91 | Fr F-1 | Sup | Deck
CON-29180	S2 - F-1 - DECK - Form Lost Deck	3	07-Aug-26	11-Aug-26	5609 - SWD, Hol	S2 - F-1 - DECK - Form Lost Deck
CON-29200	S2 - F-1 - DECK - Form EOD	3	12-Aug-26	14-Aug-26	5609 - SWD, Hol	S2 - F-1 - DECK - Form EOD
CON-29210	S2 - F-1 - DECK - Install Scaled Rails & Run-Outs	2	13-Aug-26	14-Aug-26	5609 - SWD, Hol	S2 - F-1 - DECK - Install Scaled Rails & Run-Outs
CON-29190	S2 - F-1 - DECK - Place Deck Rebar	6	17-Aug-26	24-Aug-26	5609 - SWD, Hol	S2 - F-1 - DECK - Place Deck Rebar
CON-29220	S2 - F-1 - DECK - Setup Bridge Finishing Machine & Work Bridges	1	17-Aug-26	17-Aug-26	5609 - SWD, Hol	S2 - F-1 - DECK - Setup Bridge Finishing Machine & Work Bridges
CON-29250	S2 - F-1 - DECK - Dryrun Bridge Finishing Machine	1	25-Aug-26	25-Aug-26	5609 - SWD, Hol	S2 - F-1 - DECK - Dryrun Bridge Finishing Machine
CON-29230	S2 - F-1 - DECK - Place Bridge Deck Concrete	1	28-Aug-26	26-Aug-26	5609 - SWD, Hol	S2 - F-1 - DECK - Place Bridge Deck Concrete
CON-29240	S2 - F-1 - DECK - Cure Bridge Deck Concrete	7	27-Aug-26	32-Sep-26	5609 - TCD [P]	S2 - F-1 - DECK - Cure Bridge Deck Concrete
CON-29260	S2 - F-1 - DECK - Strip Scaled Rails & EOD	2	30-Sep-26	04-Sep-26	5609 - SWD, Hol	S2 - F-1 - DECK - Strip Scaled Rails & EOD
CON-29160	S2 - F-1 - DECK - Strip Exterior Glider & OH Forms	6	28-Sep-26	16-Sep-26	5609 - SWD, Hol	S2 - F-1 - DECK - Strip Exterior Glider & OH Forms
Const [S12] Sep Access [Seg F] Bridge Sta 12+12 to Sta 12+91 | Fr F-1 | Sup | PT & BW		21	10-Sep-26	08-Oct-26		08-Oct-26, Const [S12] Sep Access [Seg F] Bridge Sta 12+12 to Sta 12+91 | Fr F-1 | Sup | PT & BW
CON-29130	S2 - F-1 - PT - Install PT Strands	4	10-Sep-26	15-Sep-26	5609 - SWD, Hol	S2 - F-1 - PT - Install PT Strands
CON-29140	S2 - F-1 - PT - Stress & Lock-off	3	16-Sep-26	18-Sep-26	5609 - SWD, Hol	S2 - F-1 - PT - Stress & Lock-off
CON-29150	S2 - F-1 - PT - Grout PT Ducts	2	21-Sep-26	22-Sep-26	5609 - SWD, Hol	S2 - F-1 - PT - Grout PT Ducts
CON-29170	S2 - F-1 - PT - RIPS PT Blockouts	3	23-Sep-26	25-Sep-26	5609 - SWD, Hol	S2 - F-1 - PT - RIPS PT Blockouts
CON-48851	S2 - F-1 - PT - Place Backwall Rebar A-A9	1	26-Sep-26	26-Sep-26	5609 - SWD, Hol	S2 - F-1 - PT - Place Backwall Rebar A-A9
CON-48861	S2 - F-1 - PT - Form 25 Backwall A-A9	1	29-Sep-26	29-Sep-26	5609 - SWD, Hol	S2 - F-1 - PT - Form 25 Backwall A-A9
CON-48871	S2 - F-1 - PT - Place Backwall Concrete A-A9	1	30-Sep-26	30-Sep-26	5609 - SWD, Hol	S2 - F-1 - PT - Place Backwall Concrete A-A9
CON-48881	S2 - F-1 - PT - Cure Backwall Concrete A-A9	7	01-Oct-26	07-Oct-26	5609 - TCD [P]	S2 - F-1 - PT - Cure Backwall Concrete A-A9
CON-48891	S2 - F-1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal A-A9	1	08-Oct-26	08-Oct-26	5609 - SWD, Hol	S2 - F-1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal A-A9
Const [S12] Sep Access [Seg F] Bridge Sta 12+12 to Sta 12+91 | Finishes		21	08-Oct-27	06-Nov-27		21-Jun-27, Const [S12] Sep Access [Seg F] Bridge Sta 12+12 to Sta 12+91 | Finishes
CON-10780	S2 - Br F - FRP Bridge Rail	4	08-Feb-27	11-Feb-27	5609 - SWD, Hol	S2 - Br F - FRP Bridge Rail
CON-15250	S2 - Br F - FRP Approach Slab A-A9	8	17-Jun-27	23-Jun-27	5609 - SWD, Hol	S2 - Br F - FRP Approach Slab A-A9
Const [S12] Sep Access [Seg F] Retained Fill Sta 12+91 to Sta 15+00		226	17-Aug-26	20-Jul-27		26-Jul-27, Const [S12] Sep Access [Seg F] Retained Fill Sta 12+91 to Sta 15+00
Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-1		60	17-Aug-26	24-Dec-26		21-Jun-27, Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-1
CON-13520	S2 - Wall F-1 - Prep Work Pad for CIDH / Remove Ex Pvnnts	4	25-Aug-26	28-Aug-26	5609 - SWD, Hol	S2 - Wall F-1 - Prep Work Pad for CIDH / Remove Ex Pvnnts
CON-13530	S2 - Wall F-1 - Install CIDH Shafts	15	23-Nov-26	17-Dec-26	5609 - SWD, Hol	S2 - Wall F-1 - Install CIDH Shafts
CON-13540	S2 - Wall F-1 - Final Cure CIDH Shafts	7	18-Dec-26	24-Dec-26	5609 - TCD [P]	S2 - Wall F-1 - Final Cure CIDH Shafts
Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-1 | Section 1		12	18-May-27	15-May-27		18-May-27, Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-1 | Section 1
CON-13550	S2 - Wall F-1 - Excavate for Footing Section 1	1	03-May-27	03-May-27	5609 - SWD, Hol	S2 - Wall F-1 - Excavate for Footing Section 1
CON-13570	S2 - Wall F-1 - FRP Footing Section 1	3	04-May-27	05-May-27	5609 - SWD, Hol	S2 - Wall F-1 - FRP Footing Section 1
CON-13590	S2 - Wall F-1 - FRP Panels Section 1	6	07-May-27	14-May-27	5609 - SWD, Hol	S2 - Wall F-1 - FRP Panels Section 1
CON-13610	S2 - Wall F-1 - Final Cure Section 1	1	14-May-27	14-May-27	5609 - TCD [P]	S2 - Wall F-1 - Final Cure Section 1
CON-13630	S2 - Wall F-1 - Strip Panels Section 1	2	17-May-27	18-May-27	5609 - SWD, Hol	S2 - Wall F-1 - Strip Panels Section 1
Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-1 | Section 2		15	18-May-27	20-May-27		24-May-27, Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-1 | Section 2
CON-13560	S2 - Wall F-1 - Excavate for Footing Section 2	1	04-May-27	04-May-27	5609 - SWD, Hol	S2 - Wall F-1 - Excavate for Footing Section 2
CON-13580	S2 - Wall F-1 - FRP Footing Section 2	3	07-May-27	11-May-27	5609 - SWD, Hol	S2 - Wall F-1 - FRP Footing Section 2
CON-13600	S2 - Wall F-1 - FRP Panels Section 2	6	12-May-27	19-May-27	5609 - SWD, Hol	S2 - Wall F-1 - FRP Panels Section 2
CON-13620	S2 - Wall F-1 - Final Cure Section 2	1	20-May-27	20-May-27	5609 - TCD [P]	S2 - Wall F-1 - Final Cure Section 2
CON-13640	S2 - Wall F-1 - Strip Panels Section 2	2	21-May-27	24-May-27	5609 - SWD, Hol	S2 - Wall F-1 - Strip Panels Section 2
Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-1 | Finishes		1	24-May-27	24-May-27		24-May-27, Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-1 | Finishes
CON-14450	S2 - Wall F-1 - Surface Finish Front Face / Install Arch Finishes	5	25-May-27	01-Jun-27	5609 - SWD, Hol	S2 - Wall F-1 - Surface Finish Front Face / Install Arch Finishes
Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-2		36	03-Jun-26	24-Feb-27		24-Feb-27, Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-2
Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-2 | CIDH		56	03-Jun-26	23-Jun-27		22-Jun-27, Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-2 | CIDH
CON-13650	S2 - Wall F-2 - Prep Work Pad for CIDH / Remove Ex Pvnnts	4	23-May-26	30-May-26	5609 - SWD, Hol	S2 - Wall F-2 - Prep Work Pad for CIDH / Remove Ex Pvnnts
CON-13660	S2 - Wall F-2 - Install CIDH Shafts	16	21-Dec-26	16-Jan-27	5609 - SWD, Hol	S2 - Wall F-2 - Install CIDH Shafts
CON-13670	S2 - Wall F-2 - Final Cure CIDH Shafts	7	16-Jan-27	22-Jan-27	5609 - TCD [P]	S2 - Wall F-2 - Final Cure CIDH Shafts
Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-2 | Section 1		9	25-Jan-27	25-Jan-27		09-Feb-27, Const [S12] Sep Access [Seg F] Ret Fill Sta 12+91 to Sta 15+00 | Wall F-2 | Section 1
CON-13680	S2 - Wall F-2 - Excavate for Footing Section 1	1	25-Jan-27	25-Jan-27	5609 - SWD, Hol	S2 - Wall F-2 - Excavate for Footing Section 1
CON-13710	S2 - Wall F-2 - FRP Footing Section 1	3	26-Jan-27	26-Jan-27	5609 - SWD, Hol	S2 - Wall F-2 - FRP Footing Section 1

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar
CON-13740	S2 - Wall F-2 - FRP Panels Section 1		6 25-Jan-27	05-Feb-27	5609 - SWD, Hol
CON-13770	S2 - Wall F-2 - Final Cure Section 1		1 05-Feb-27	06-Feb-27	5609 - 7CD [P]
CON-13800	S2 - Wall F-2 - Strip Panels Section 1		2 08-Feb-27	09-Feb-27	5609 - SWD, Hol
Const [S] 2 [Sep Access] [Seg F] [Ret Fill] Sta 12+91 to Sta 15+00 | Wall F-2 | Section 2			15 26-Jan-27	16-Feb-27	
CON-13690	S2 - Wall F-2 - Excavate for Footing Section 2		1 26-Jan-27	26-Jan-27	5609 - SWD, Hol
CON-13720	S2 - Wall F-2 - FRP Footing Section 2		1 26-Jan-27	02-Feb-27	5609 - SWD, Hol
CON-13750	S2 - Wall F-2 - FRP Panels Section 2		1 03-Feb-27	10-Feb-27	5609 - SWD, Hol
CON-13780	S2 - Wall F-2 - Final Cure Section 2		1 11-Feb-27	14-Feb-27	5609 - 7CD [P]
CON-13810	S2 - Wall F-2 - Strip Panels Section 2		2 12-Feb-27	16-Feb-27	5609 - SWD, Hol
Const [S] 2 [Sep Access] [Seg F] [Ret Fill] Sta 12+91 to Sta 15+00 | Wall F-2 | Section 3			1 27-Jan-27	16-Feb-27	
CON-13700	S2 - Wall F-2 - Excavate for Footing Section 3		1 27-Jan-27	27-Jan-27	5609 - SWD, Hol
CON-13730	S2 - Wall F-2 - FRP Footing Section 3		3 03-Feb-27	05-Feb-27	5609 - SWD, Hol
CON-13760	S2 - Wall F-2 - FRP Panels Section 3		6 08-Feb-27	16-Feb-27	5609 - SWD, Hol
CON-13790	S2 - Wall F-2 - Final Cure Section 3		1 17-Feb-27	17-Feb-27	5609 - 7CD [P]
CON-13820	S2 - Wall F-2 - Strip Panels Section 3		2 18-Feb-27	19-Feb-27	5609 - SWD, Hol
Const [S] 2 [Sep Access] [Seg F] [Ret Fill] Sta 12+91 to Sta 15+00 | Wall F-2 | Finishes			5 22-Feb-27	26-Feb-27	5609 - SWD, Hol
CON-14460	S2 - Wall F-2 - Surface Finish Front Face / Install Arch Finishes		5 22-Feb-27	26-Feb-27	5609 - SWD, Hol
Const [S] 2 [Sep Access] [Seg F] [Ret Fill] Sta 12+91 to Sta 15+00 | Rdwy Section			1 26-Jan-27	26-Jan-27	5609 - SWD, Hol
CON-47811	S2 - Seg F - 12+91 to 15+00 - Install Retaining Barrier		4 02-Jun-27	07-Jun-27	5609 - SWD, Hol
CON-14850	S2 - Seg F - 12+91 to 15+00 - Place, Contour & Grade Wall BF & Ramp Embankment		7 06-Jun-27	16-Jun-27	5609 - SWD, Hol
CON-14860	S2 - Seg F - 12+91 to 15+00 - Install Drainage Pipe & Appurtenances		5 17-Jun-27	23-Jun-27	5609 - SWD, Hol
CON-14870	S2 - Seg F - 12+91 to 15+00 - Install Drainage Boxes & Appurtenances		10 22-Jun-27	05-Jul-27	5609 - SWD, Hol
CON-14910	S2 - Seg F - 12+91 to 15+00 - Fine Grade Subgrade		3 07-Jul-27	09-Jul-27	5609 - SWD, Hol
CON-14890	S2 - Seg F - 12+91 to 15+00 - Place & Fine Grade Agg Base		5 12-Jul-27	16-Jul-27	5609 - SWD, Hol
CON-14900	S2 - Seg F - 12+91 to 15+00 - Place Base Course Pavement		1 19-Jul-27	19-Jul-27	5609 - SWD, Hol
CON-14880	S2 - Seg F - 12+91 to 15+00 - FRP Traffic Barrier		5 10-Jul-27	26-Jul-27	5609 - SWD, Hol
Const [S] 2 [Sep Access] [Seg F] [AI] Grade Sta 15+00 to Sta 16+45			10 14-Jul-27	09-Aug-27	5609 - SWD, Hol
CON-47831	S2 - Seg F - 15+00 to 16+45 - Remove Pavement & Hardscapes		2 14-Jul-27	16-Jul-27	5609 - SWD, Hol
CON-47891	S2 - Seg F - 15+00 to 16+45 - Fine Grade Subgrade		3 16-Jul-27	20-Jul-27	5609 - SWD, Hol
CON-47921	S2 - Seg F - 15+00 to 16+45 - Install Curb & Gutter		3 21-Jul-27	23-Jul-27	5609 - SWD, Hol
CON-47931	S2 - Seg F - 15+00 to 16+45 - Install Street Lighting Conduit & Handholes		2 26-Jul-27	27-Jul-27	5609 - SWD, Hol
CON-47871	S2 - Seg F - 15+00 to 16+45 - Place & Fine Grade Agg Base		3 28-Jul-27	30-Jul-27	5609 - SWD, Hol
CON-47861	S2 - Seg F - 15+00 to 16+45 - Place Base Course Pavement		1 02-Aug-27	30-Aug-27	5609 - SWD, Hol
CON-47861	S2 - Seg F - 15+00 to 16+45 - FRP Traffic Barrier		8 03-Aug-27	29-Aug-27	5609 - SWD, Hol
Const [S] 2 [Sep Access] [Seg G]			455 11-Feb-26	29-Dec-27	
Const [S] 2 [Sep Access] [Seg G] [Bridge Sta 9+54 to Sta 15+12]			455 11-Feb-26	29-Dec-27	
Const [S] 2 [Sep Access] [Seg G] [Bridge Sta 9+54 to Sta 15+12] Fr G-F1 | F & S			177 11-Feb-26	21-Oct-26	
Const [S] 2 [Sep Access] [Seg G] [Bridge Sta 9+54 to Sta 15+12] Fr G-F1 | F & S | About G-A5			79 16-May-26	13-Jul-26	
CON-16360	S2 - G-F1 - G-A5 - Install CIDH Shell(s)		7 18-May-26	27-May-26	5609 - SWD, Hol
CON-16380	S2 - G-F1 - G-A5 - Excavate Footing		4 28-May-26	02-Jun-26	5609 - SWD, Hol
CON-16370	S2 - G-F1 - G-A5 - Cure CIDH		7 28-May-26	03-Jun-26	5609 - 7CD [P]
CON-16390	S2 - G-F1 - G-A5 - Prep CIDH for Footing Construction		3 03-Jun-26	05-Jun-26	5609 - SWD, Hol
CON-16410	S2 - G-F1 - G-A5 - Form Footing/Dowel Template		3 06-Jun-26	10-Jun-26	5609 - SWD, Hol
CON-16450	S2 - G-F1 - G-A5 - Place Rebar		3 11-Jun-26	15-Jun-26	5609 - SWD, Hol
CON-16460	S2 - G-F1 - G-A5 - Place Footing Concrete		1 16-Jun-26	16-Jun-26	5609 - SWD, Hol
CON-16510	S2 - G-F1 - G-A5 - Cure Footing Concrete		7 17-Jun-26	23-Jun-26	5609 - 7CD [P]
CON-16520	S2 - G-F1 - G-A5 - Strip Footing Forms/Dowel Template		1 17-Jun-26	17-Jun-26	5609 - SWD, Hol
CON-16550	S2 - G-F1 - G-A5 - Blast/Prep for Stems & Wings		1 18-Jun-26	18-Jun-26	5609 - SWD, Hol
CON-16560	S2 - G-F1 - G-A5 - Form 15 Stems/Wings/Backwall		3 19-Jun-26	23-Jun-26	5609 - SWD, Hol
CON-16610	S2 - G-F1 - G-A5 - Place Stem & Wing Rebar		3 24-Jun-26	26-Jun-26	5609 - SWD, Hol
CON-16660	S2 - G-F1 - G-A5 - Form 25 Stems & Wings		2 29-Jun-26	30-Jun-26	5609 - SWD, Hol
CON-16720	S2 - G-F1 - G-A5 - Place Stem & Wing Concrete		1 01-Jul-26	01-Jul-26	5609 - SWD, Hol
CON-16740	S2 - G-F1 - G-A5 - Cure Stem & Wing Concrete		7 02-Jul-26	08-Jul-26	5609 - 7CD [P]
CON-16750	S2 - G-F1 - G-A5 - Strip Stem & Wing Forms / Rough Surface Finish		2 09-Jul-26	10-Jul-26	5609 - SWD, Hol
CON-16760	S2 - G-F1 - G-A5 - Backfill		1 13-Jul-26	13-Jul-26	5609 - SWD, Hol
Const [S] 2 [Sep Access] [Seg G] [Bridge Sta 9+54 to Sta 15+12] Fr G-F1 | F & S | Bent G-B4			106 22-May-26	21-Oct-26	

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-18190	S2 - G-F1 - G-B4 - Install CIDH Shafts		4/22-May-26	28-May-26	5609 - SWD, Hol	S2 - G-F1 - G-B4 - Install CIDH Shafts
CON-18410	S2 - G-F1 - G-B4 - Cure Shaft		7/29-May-26	04-Jun-26	5609 - TCD [P]	S2 - G-F1 - G-B4 - Cure Shaft
CON-18420	S2 - G-F1 - G-B4 - Prep Transition Zone/Set Column Cage & Guy		4/29-May-26	03-Jun-26	5609 - SWD, Hol	S2 - G-F1 - G-B4 - Prep Transition Zone/Set Column Cage & Guy
CON-18660	S2 - G-F1 - G-B4 - Place Transition Zone Concrete		1/05-Jun-26	05-Jun-26	5609 - SWD, Hol	S2 - G-F1 - G-B4 - Place Transition Zone Concrete
CON-18730	S2 - G-F1 - G-B4 - Cure Transition Zone Concrete		7/06-Jun-26	*2-Jun-26	5609 - TCD [P]	S2 - G-F1 - G-B4 - Cure Transition Zone Concrete
CON-18740	S2 - G-F1 - G-B4 - Form Column		3/07-Oct-26	09-Oct-26	5609 - SWD, Hol	S2 - G-F1 - G-B4 - Form Column
CON-18840	S2 - G-F1 - G-B4 - Connect Thermal Control System		1/12-Oct-26	*2-Oct-26	5609 - SWD, Hol	S2 - G-F1 - G-B4 - Connect Thermal Control System
CON-18970	S2 - G-F1 - G-B4 - Place Column Concrete		1/13-Oct-26	13-Oct-26	5609 - SWD, Hol	S2 - G-F1 - G-B4 - Place Column Concrete
CON-18990	S2 - G-F1 - G-B4 - Cure Column Concrete		7/14-Oct-26	20-Oct-26	5609 - TCD [P]	S2 - G-F1 - G-B4 - Cure Column Concrete
CON-19010	S2 - G-F1 - G-B4 - Strip Column Forms 1 Day Minimum Removal		1/21-Oct-26	21-Oct-26	5609 - SWD, Hol	S2 - G-F1 - G-B4 - Strip Column Forms 1 Day Minimum Removal
Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | F & S | Bent G-B3			21/03-Sep-26	10-Oct-26		Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | F & S | Bent G-B3
CON-17930	S2 - G-F1 - G-B3 - Install CIDH Shafts		4/28-Aug-26	02-Sep-26	5609 - SWD, Hol	S2 - G-F1 - G-B3 - Install CIDH Shafts
CON-18100	S2 - G-F1 - G-B3 - Cure Shaft		7/03-Sep-26	08-Sep-26	5609 - TCD [P]	S2 - G-F1 - G-B3 - Cure Shaft
CON-18170	S2 - G-F1 - G-B3 - Prep Transition Zone/Set Column Cage & Guy		4/03-Sep-26	09-Sep-26	5609 - SWD, Hol	S2 - G-F1 - G-B3 - Prep Transition Zone/Set Column Cage & Guy
CON-18470	S2 - G-F1 - G-B3 - Place Transition Zone Concrete		1/10-Sep-26	10-Sep-26	5609 - SWD, Hol	S2 - G-F1 - G-B3 - Place Transition Zone Concrete
CON-18480	S2 - G-F1 - G-B3 - Cure Transition Zone Concrete		7/11-Sep-26	17-Sep-26	5609 - TCD [P]	S2 - G-F1 - G-B3 - Cure Transition Zone Concrete
CON-18510	S2 - G-F1 - G-B3 - Form Column		3/29-Sep-26	01-Oct-26	5609 - SWD, Hol	S2 - G-F1 - G-B3 - Form Column
CON-18570	S2 - G-F1 - G-B3 - Connect Thermal Control System		1/02-Oct-26	02-Oct-26	5609 - SWD, Hol	S2 - G-F1 - G-B3 - Connect Thermal Control System
CON-18790	S2 - G-F1 - G-B3 - Place Column Concrete		1/05-Oct-26	05-Oct-26	5609 - SWD, Hol	S2 - G-F1 - G-B3 - Place Column Concrete
CON-18820	S2 - G-F1 - G-B3 - Cure Column Concrete		7/05-Oct-26	12-Oct-26	5609 - TCD [P]	S2 - G-F1 - G-B3 - Cure Column Concrete
CON-18830	S2 - G-F1 - G-B3 - Strip Column Forms 1 Day Minimum Removal		1/16-Oct-26	16-Oct-26	5609 - SWD, Hol	S2 - G-F1 - G-B3 - Strip Column Forms 1 Day Minimum Removal
Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | F & S | Bent G-B2			21/03-Sep-26	09-Oct-26		Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | F & S | Bent G-B2
CON-17860	S2 - G-F1 - G-B2 - Install CIDH Shafts		4/03-Sep-26	09-Sep-26	5609 - SWD, Hol	S2 - G-F1 - G-B2 - Install CIDH Shafts
CON-17880	S2 - G-F1 - G-B2 - Cure Shaft		7/10-Sep-26	16-Sep-26	5609 - TCD [P]	S2 - G-F1 - G-B2 - Cure Shaft
CON-17940	S2 - G-F1 - G-B2 - Prep Transition Zone/Set Column Cage & Guy		4/10-Sep-26	16-Sep-26	5609 - SWD, Hol	S2 - G-F1 - G-B2 - Prep Transition Zone/Set Column Cage & Guy
CON-18270	S2 - G-F1 - G-B2 - Place Transition Zone Concrete		1/17-Sep-26	17-Sep-26	5609 - SWD, Hol	S2 - G-F1 - G-B2 - Place Transition Zone Concrete
CON-18280	S2 - G-F1 - G-B2 - Cure Transition Zone Concrete		7/18-Sep-26	24-Sep-26	5609 - TCD [P]	S2 - G-F1 - G-B2 - Cure Transition Zone Concrete
CON-18290	S2 - G-F1 - G-B2 - Form Column		3/18-Sep-26	22-Sep-26	5609 - SWD, Hol	S2 - G-F1 - G-B2 - Form Column
CON-18380	S2 - G-F1 - G-B2 - Connect Thermal Control System		1/23-Sep-26	23-Sep-26	5609 - SWD, Hol	S2 - G-F1 - G-B2 - Connect Thermal Control System
CON-18530	S2 - G-F1 - G-B2 - Place Column Concrete		1/25-Sep-26	25-Sep-26	5609 - SWD, Hol	S2 - G-F1 - G-B2 - Place Column Concrete
CON-18580	S2 - G-F1 - G-B2 - Cure Column Concrete		7/28-Sep-26	02-Oct-26	5609 - TCD [P]	S2 - G-F1 - G-B2 - Cure Column Concrete
CON-18590	S2 - G-F1 - G-B2 - Strip Column Forms 1 Day Minimum Removal		7/28-Sep-26	28-Sep-26	5609 - SWD, Hol	S2 - G-F1 - G-B2 - Strip Column Forms 1 Day Minimum Removal
Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | F & S | Bent G-A1			40/11-Feb-26	105-Apr-26		Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | F & S | Bent G-A1
CON-19500	S2 - G-F1 - G-A1 - Install CIDH Shafts		7/11-Feb-26	20-Feb-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Install CIDH Shafts
CON-19520	S2 - G-F1 - G-A1 - Cure CIDH		7/21-Feb-26	27-Feb-26	5609 - TCD [P]	S2 - G-F1 - G-A1 - Cure CIDH
CON-14510	S2 - G-F1 - G-A1 - Excavate Footing		4/23-Feb-26	28-Feb-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Excavate Footing
CON-14530	S2 - G-F1 - G-A1 - Prep CIDH For Footing Construction		3/27-Feb-26	03-Mar-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Prep CIDH For Footing Construction
CON-14540	S2 - G-F1 - G-A1 - Form Footing/Dowel Template		3/04-Mar-26	06-Mar-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Form Footing/Dowel Template
CON-14550	S2 - G-F1 - G-A1 - Place Rebar		3/09-Mar-26	11-Mar-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Place Rebar
CON-14560	S2 - G-F1 - G-A1 - Place Footing Concrete		1/12-Mar-26	12-Mar-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Place Footing Concrete
CON-14570	S2 - G-F1 - G-A1 - Cure Footing Concrete		7/13-Mar-26	19-Mar-26	5609 - TCD [P]	S2 - G-F1 - G-A1 - Cure Footing Concrete
CON-14580	S2 - G-F1 - G-A1 - Strip Footing Forms/Dowel Template		1/13-Mar-26	13-Mar-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Strip Footing Forms/Dowel Template
CON-14590	S2 - G-F1 - G-A1 - Blast/Prep For Stems & Wings		1/16-Mar-26	16-Mar-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Blast/Prep For Stems & Wings
CON-14600	S2 - G-F1 - G-A1 - Form 15 Stems/Wings/Backwall		3/17-Mar-26	19-Mar-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Form 15 Stems/Wings/Backwall
CON-14610	S2 - G-F1 - G-A1 - Place Stem & Wing Rebar		3/20-Mar-26	24-Mar-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Place Stem & Wing Rebar
CON-14620	S2 - G-F1 - G-A1 - Form 25 Stems & Wings		7/25-Mar-26	26-Mar-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Form 25 Stems & Wings
CON-14630	S2 - G-F1 - G-A1 - Place Stem & Wing Concrete		1/27-Mar-26	27-Mar-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Place Stem & Wing Concrete
CON-14640	S2 - G-F1 - G-A1 - Cure Stem & Wing Concrete		7/28-Mar-26	03-Apr-26	5609 - TCD [P]	S2 - G-F1 - G-A1 - Cure Stem & Wing Concrete
CON-14650	S2 - G-F1 - G-A1 - Strip Stem & Wing Forms / Rough Surface Finish		2/06-Apr-26	07-Apr-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Strip Stem & Wing Forms / Rough Surface Finish
CON-14660	S2 - G-F1 - G-A1 - Backfill		1/08-Apr-26	08-Apr-26	5609 - SWD, Hol	S2 - G-F1 - G-A1 - Backfill
Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup			14/22-Oct-26	15-May-27		Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup
Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup | FW			129/22-Oct-26	15-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup | FW
CON-16600	S2 - G-F1 - FW - Install Grillage/Bent/Bent Cap/Pier/Singers		5/28-Oct-26	28-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - G-F1 - FW - Install Grillage/Bent/Bent Cap/Pier/Singers
CON-19041	S2 - G-F1 - FW - Remove Falsework		5/13-May-27	19-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - G-F1 - FW - Remove Falsework
Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup | Soft & Stms			15/28-Oct-26			Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup | Soft & Stms
CON-18670	S2 - G-F1 - SAS - Install Soft & Safety Rail		12/29-Oct-26	16-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - G-F1 - SAS - Install Soft & Safety Rail
CON-19090	S2 - G-F1 - SAS - Form Exterior Girder & OH		17/17-Nov-26	25-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - G-F1 - SAS - Form Exterior Girder & OH

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Start	Finish	Calendar	
CON-19381	S2 - G-F1 - S&S - Install Elastomeric Bearing Pads @ G-A1 & G-A5	8/17-Nov-26	07-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - G-F1 - S&S - Install Elastomeric Bearing Pads @ G-A1 & G-A5
CON-19220	S2 - G-F1 - S&S - Place Soffit Rebar	8/01-Dec-26	14-Dec-26	5609 - SWD, Hol	S2 - G-F1 - S&S - Place Soffit Rebar
CON-19390	S2 - G-F1 - S&S - Place Stem Rebar	8/15-Dec-26	29-Dec-26	5609 - SWD, Hol	S2 - G-F1 - S&S - Place Stem Rebar
CON-19500	S2 - G-F1 - S&S - Install PT Ducts	4/28-Dec-26	04-Jan-27	5609 - SWD, Hol	S2 - G-F1 - S&S - Install PT Ducts
CON-19570	S2 - G-F1 - S&S - Form Interior Girders & Walkways	15/06-Jan-27	27-Jan-27	5609 - SWD, Hol	S2 - G-F1 - S&S - Form Interior Girders & Walkways
CON-19780	S2 - G-F1 - S&S - Form Diaphragms & Blockouts	5/28-Jan-27	03-Feb-27	5609 - SWD, Hol	S2 - G-F1 - S&S - Form Diaphragms & Blockouts
CON-19800	S2 - G-F1 - S&S - Place Soffit & Stem Concrete	2/04-Feb-27	05-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - G-F1 - S&S - Place Soffit & Stem Concrete
CON-19890	S2 - G-F1 - S&S - Cure Soffit & Stem Concrete	7/06-Feb-27	12-Feb-27	5609 - TCD [P]	S2 - G-F1 - S&S - Cure Soffit & Stem Concrete
CON-19900	S2 - G-F1 - S&S - Strip Interior Girder Forms & Walkways	8/08-Feb-27	18-Feb-27	5609 - SWD, Hol	S2 - G-F1 - S&S - Strip Interior Girder Forms & Walkways
CON-19930	S2 - G-F1 - S&S - Strip Diaphragms	5/19-Feb-27	25-Feb-27	5609 - SWD, Hol	S2 - G-F1 - S&S - Strip Diaphragms
Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup | Deck		48/28-Feb-27	30-Apr-27		Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup | Deck
CON-19960	S2 - G-F1 - DECK - Form Lost Deck	8/25-Feb-27	09-Mar-27	5609 - SWD, Hol	S2 - G-F1 - DECK - Form Lost Deck
CON-20000	S2 - G-F1 - DECK - Form EOD	8/10-Mar-27	19-Mar-27	5609 - SWD, Hol	S2 - G-F1 - DECK - Form EOD
CON-20030	S2 - G-F1 - DECK - Install Scaffolding & Run-Offs	10/11-Mar-27	24-Mar-27	5609 - SWD, Hol	S2 - G-F1 - DECK - Install Scaffolding & Run-Offs
CON-20100	S2 - G-F1 - DECK - Place Deck Rebar	10/22-Mar-27	22-Apr-27	5609 - SWD, Hol	S2 - G-F1 - DECK - Place Deck Rebar
CON-20120	S2 - G-F1 - DECK - Set-up Bridge Finishing Machine & Work Bridges	1/25-Mar-27	25-Mar-27	5609 - SWD, Hol	S2 - G-F1 - DECK - Set-up Bridge Finishing Machine & Work Bridges
CON-20180	S2 - G-F1 - DECK - Dry-run Bridge Finishing Machine	1/25-Apr-27	25-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - G-F1 - DECK - Dry-run Bridge Finishing Machine
CON-20230	S2 - G-F1 - DECK - Place Bridge Deck Concrete	1/25-Apr-27	25-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - G-F1 - DECK - Place Bridge Deck Concrete
CON-20270	S2 - G-F1 - DECK - Cure Bridge Deck Concrete	7/27-Apr-27	13-Apr-27	5609 - TCD [P]	S2 - G-F1 - DECK - Cure Bridge Deck Concrete
CON-20280	S2 - G-F1 - DECK - Strip Scaffolding & EOD	4/14-Apr-27	19-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - G-F1 - DECK - Strip Scaffolding & EOD
CON-20291	S2 - G-F1 - DECK - Strip Ext Girder & CH	8/20-Apr-27	30-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - G-F1 - DECK - Strip Ext Girder & CH
Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup | PT		22/27-Apr-27	26-May-27		Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup | PT
CON-48951	S2 - G-F1 - PT - Install PT Stands	4/27-Apr-27	30-Apr-27	5609 - SWD, Hol	S2 - G-F1 - PT - Install PT Stands
CON-48961	S2 - G-F1 - PT - Struts & Lock-off	3/03-May-27	05-May-27	5609 - SWD, Hol	S2 - G-F1 - PT - Struts & Lock-off
CON-48971	S2 - G-F1 - PT - Grout PT Ducts	2/08-May-27	07-May-27	5609 - SWD, Hol	S2 - G-F1 - PT - Grout PT Ducts
CON-48981	S2 - G-F1 - PT - RPIS PT Blockouts	3/10-May-27	12-May-27	5609 - SWD, Hol	S2 - G-F1 - PT - RPIS PT Blockouts
CON-48991	S2 - G-F1 - PT - Place Backwall Rebar G-A5	1/13-May-27	13-May-27	5609 - SWD, Hol	S2 - G-F1 - PT - Place Backwall Rebar G-A5
CON-49001	S2 - G-F1 - PT - Form 2S Backwall G-A5	1/14-May-27	14-May-27	5609 - SWD, Hol	S2 - G-F1 - PT - Form 2S Backwall G-A5
CON-49051	S2 - G-F1 - PT - Place Backwall Rebar G-A1	1/14-May-27	14-May-27	5609 - SWD, Hol	S2 - G-F1 - PT - Place Backwall Rebar G-A1
CON-49011	S2 - G-F1 - PT - Place Backwall Concrete G-A5	1/17-May-27	17-May-27	5609 - SWD, Hol	S2 - G-F1 - PT - Place Backwall Concrete G-A5
CON-49061	S2 - G-F1 - PT - Form 2S Backwall G-A1	1/17-May-27	17-May-27	5609 - SWD, Hol	S2 - G-F1 - PT - Form 2S Backwall G-A1
CON-49021	S2 - G-F1 - PT - Cure Backwall Concrete G-A5	7/18-May-27	24-May-27	5609 - TCD [P]	S2 - G-F1 - PT - Cure Backwall Concrete G-A5
CON-49071	S2 - G-F1 - PT - Place Backwall Concrete G-A1	1/18-May-27	18-May-27	5609 - SWD, Hol	S2 - G-F1 - PT - Place Backwall Concrete G-A1
CON-49081	S2 - G-F1 - PT - Cure Backwall Concrete G-A1	7/15-May-27	25-May-27	5609 - TCD [P]	S2 - G-F1 - PT - Cure Backwall Concrete G-A1
CON-49031	S2 - G-F1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal G-A5	1/25-May-27	25-May-27	5609 - SWD, Hol	S2 - G-F1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal G-A5
CON-49091	S2 - G-F1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal G-A1	1/26-May-27	26-May-27	5609 - SWD, Hol	S2 - G-F1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal G-A1
Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Finishes		19/20-May-27	05-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	Const | S12 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Finishes
CON-19800	S2 - Br G - FRP Bridge Rail	7/20-May-27	28-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - Br G - FRP Bridge Rail
CON-19260	S2 - Br G - FRP Approach Slab G-A5	5/13-Aug-27	19-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - Br G - FRP Approach Slab G-A5
CON-45070	S2 - Br G - FRP Approach Slab G-A1	5/02-Dec-27	09-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - Br G - FRP Approach Slab G-A1
Const | S12 | Sep Access | Seg H		102/10-Sep-26	12-Feb-27	5609 - SWD, Hol	Const | S12 | Sep Access | Seg H
Const | S12 | Sep Access | Seg H | At Grade Sta 17+00 to Sta 22+71		102/10-Sep-26	12-Feb-27	5609 - SWD, Hol	Const | S12 | Sep Access | Seg H | At Grade Sta 17+00 to Sta 22+71
CON-52501	S2 - Seg H - 17+00 to 22+71 - Perform Rwy Exc / Fill	5/10-Sep-26	16-Sep-26	5609 - SWD, Hol	S2 - Seg H - 17+00 to 22+71 - Perform Rwy Exc / Fill
CON-52511	S2 - Seg H - 17+00 to 22+71 - Install Storm Drainage & Appurtenances	15/17-Sep-26	07-Oct-26	5609 - SWD, Hol	S2 - Seg H - 17+00 to 22+71 - Install Storm Drainage & Appurtenances
CON-52521	S2 - Seg H - 17+00 to 22+71 - Grade for Curb & Gutter	3/08-Oct-26	12-Oct-26	5609 - SWD, Hol	S2 - Seg H - 17+00 to 22+71 - Grade for Curb & Gutter
CON-52531	S2 - Seg H - 17+00 to 22+71 - Install Curb & Gutter	8/13-Oct-26	15-Oct-26	5609 - SWD, Hol	S2 - Seg H - 17+00 to 22+71 - Install Curb & Gutter
CON-52541	S2 - Seg H - 17+00 to 22+71 - Install Street Lighting & Gentry Foundations / Conduit	6/16-Oct-26	27-Oct-26	5609 - SWD, Hol	S2 - Seg H - 17+00 to 22+71 - Install Street Lighting & Gentry Foundations / Conduit
CON-52551	S2 - Seg H - 17+00 to 22+71 - Prep Subgrade & Place Agg Base	13/28-Oct-26	15-Nov-26	5609 - SWD, Hol	S2 - Seg H - 17+00 to 22+71 - Prep Subgrade & Place Agg Base
CON-52561	S2 - Seg H - 17+00 to 22+71 - Place ACP Base Course	2/17-Nov-26	19-Nov-26	5609 - SWD, Hol	S2 - Seg H - 17+00 to 22+71 - Place ACP Base Course
CON-52571	S2 - Seg H - 17+00 to 22+71 - FRP Traffic Barrier - Northern Edge	4/19-Nov-26	24-Nov-26	5609 - SWD, Hol	S2 - Seg H - 17+00 to 22+71 - FRP Traffic Barrier - Northern Edge
CON-52581	S2 - Seg H - 17+00 to 22+71 - Install Street Lighting Poles & Fixtures	4/25-Nov-26	02-Dec-26	5609 - SWD, Hol	S2 - Seg H - 17+00 to 22+71 - Install Street Lighting Poles & Fixtures
CON-52591	S2 - Seg H - 17+00 to 22+71 - Install CMS Gantry	2/11-Feb-27	12-Feb-27	5609 - SWD, Hol	S2 - Seg H - 17+00 to 22+71 - Install CMS Gantry
Const | S12 | Con Access		372/20-Apr-26	14-Oct-27		Const | S12 | Con Access
Const | S12 | Con Access | MOT		338/20-Apr-26	14-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	Const | S12 | Con Access | MOT
CON-53861	S2 - Establish MOT Measures Temp Airport Return Loop for Seg L	2/20-Apr-26	21-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - Establish MOT Measures Temp Airport Return Loop for Seg L
CON-53871	S2 - Establish MOT Measures on Existing L for Widening	2/22-Apr-26	23-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - Establish MOT Measures on Existing L for Widening
CON-49691	S2 - Establish MOT Measures on Center Way for Seg L/S Core	2/12-May-26	13-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - Establish MOT Measures on Center Way for Seg L/S Core

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-16350	S2 - Establish MOT Measures / Shift WB Century to Arrivals onto Temp X-Over	3	27-Jul-28	29-Jul-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Establish MOT Measures / Shift WB Century to Arrivals onto Temp X-Over
CON-53881	S2 - Open Seg L - n Stage 2 Configuration	2	13-Jul-27	14-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Open Seg L - n Stage 2 Configuration
CON-50261	S2 - Re-Open Airport Return Loop & Admin East Driveway	2	18-Oct-27	14-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Re-Open Airport Return Loop & Admin East Driveway
Const | St 2 | Cen Access | Seg L		320	14-May-25	17-Jul-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | St 2 | Cen Access | Seg L
Const | St 2 | Cen Access | Seg L | Preparatory Work		21	14-May-25	17-Jul-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | St 2 | Cen Access | Seg L | Preparatory Work
CON-53881	S2 - Seg L - Remove Pavements & Grade for CIDH	6	14-May-25	21-May-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Seg L - Remove Pavements & Grade for CIDH
CON-53801	S2 - Seg L - Remove Temp Retaining Wall East Fence	5	22-May-25	29-May-25	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Seg L - Remove Temp Retaining Wall East Fence
CON-53911	S2 - Seg L - Demo Existing Bridge Overhang	6	01-Jun-26	06-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Seg L - Demo Existing Bridge Overhang
CON-53921	S2 - Seg L - Demo Existing Retaining Wall	6	13-Jul-26	17-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Seg L - Demo Existing Retaining Wall
Const | St 2 | Cen Access | Seg L | Roadway Finishes		250	01-Jun-26	04-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | St 2 | Cen Access | Seg L | Roadway Finishes
CON-49761	S2 - Seg L - Install Sidewalk & ADA Ramps	9	01-Jun-26	05-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Seg L - Install Sidewalk & ADA Ramps
CON-49721	S2 - Seg L - Install Roadway Finishes & Remove K-Rail on Seg S	5	13-Jul-26	17-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Seg L - Install Roadway Finishes & Remove K-Rail on Seg S
CON-34300	S2 - Seg L - Install Signs, Striping & Misc Finishes	8	30-Jun-27	12-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Seg L - Install Signs, Striping & Misc Finishes
CON-54121	S2 - Seg L - Reinstall Admin East Fence	18	15-Jul-27	04-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Seg L - Reinstall Admin East Fence
Const | St 2 | Cen Access | Seg L | At Grade Sta 66+10 to Sta 67+00 & Seg S Gore		27	22-Apr-26	28-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | St 2 | Cen Access | Seg L | At Grade Sta 66+10 to Sta 67+00 & Seg S Gore
CON-49701	S2 - L 66+10 to 67+00 - Remove Pavements & Hardscapes	4	22-Apr-26	27-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - L 66+10 to 67+00 - Remove Pavements & Hardscapes
CON-49711	S2 - L 66+10 to 67+00 - Install Drainage Pipe & Appurtenances	10	28-Apr-26	11-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - L 66+10 to 67+00 - Install Drainage Pipe & Appurtenances
CON-49731	S2 - L 66+10 to 67+00 - Install Curb & Gutter	7	12-May-26	20-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - L 66+10 to 67+00 - Install Curb & Gutter
CON-49741	S2 - L 66+10 to 67+00 - Prep Subgrade & Place Agg Base	5	21-May-26	28-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - L 66+10 to 67+00 - Prep Subgrade & Place Agg Base
CON-49751	S2 - L 66+10 to 67+00 - Place HMA Base Course	1	28-May-26	29-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - L 66+10 to 67+00 - Place HMA Base Course
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to Sta 69+08		277	18-May-26	29-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to Sta 69+08
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1		14	18-May-26	17-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Footings		35	18-May-26	13-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Footings
CON-14241	S2 - Wall L-1 - Install Isolation Casings	6	18-May-26	23-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Install Isolation Casings
CON-14250	S2 - Wall L-1 - Install CIDH Shafts	8	24-Aug-26	02-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Install CIDH Shafts
CON-14261	S2 - Wall L-1 - Excavate Footing	3	03-Sep-26	08-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Excavate Footing
CON-14271	S2 - Wall L-1 - Prep CIDH & Ex Footing	4	09-Sep-26	14-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Prep CIDH & Ex Footing
CON-14281	S2 - Wall L-1 - Install Dowels into Ex Footing	3	15-Sep-26	17-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Install Dowels into Ex Footing
CON-14290	S2 - Wall L-1 - FRP Footing Section A	10	18-Sep-26	01-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - FRP Footing Section A
CON-54131	S2 - Wall L-1 - Strip & Backfill Footing Section A	2	02-Oct-26	05-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Strip & Backfill Footing Section A
CON-14300	S2 - Wall L-1 - FRP Footing Section B	4	05-Oct-26	09-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - FRP Footing Section B
CON-54141	S2 - Wall L-1 - Strip & Backfill Footing Section B	2	12-Oct-26	13-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Strip & Backfill Footing Section B
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Panels		27	18-Oct-26	12-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Panels
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Panels | Section 1		5	18-Oct-26	2-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Panels | Section 1
CON-54171	S2 - Wall L-1 - FRP Curtain & Rib Walls - Section 1	4	08-Oct-26	09-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - FRP Curtain & Rib Walls - Section 1
CON-54181	S2 - Wall L-1 - Cure Section 1	1	19-Oct-26	10-Oct-26	5609 - TCD [P]	S2 - Wall L-1 - Cure Section 1
CON-54191	S2 - Wall L-1 - Strip Panels Section 1	1	12-Oct-26	12-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Strip Panels Section 1
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Panels | Section 2		3	13-Oct-26	27-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Panels | Section 2
CON-54211	S2 - Wall L-1 - FRP Curtain & Rib Walls - Section 2	8	13-Oct-26	20-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - FRP Curtain & Rib Walls - Section 2
CON-54221	S2 - Wall L-1 - Cure Section 2	1	21-Oct-26	21-Oct-26	5609 - TCD [P]	S2 - Wall L-1 - Cure Section 2
CON-54231	S2 - Wall L-1 - Strip Panels Section 2	1	22-Oct-26	22-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Strip Panels Section 2
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Panels | Section 3		15	06-Oct-26	26-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Panels | Section 3
CON-14311	S2 - Wall L-1 - Drill & Install Rebar & Form Ties - Curtain Wall - Section 3	4	06-Oct-26	09-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Drill & Install Rebar & Form Ties - Curtain Wall - Section 3
CON-54151	S2 - Wall L-1 - FRP Curtain & Rib Walls - Section 3	10	12-Oct-26	22-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - FRP Curtain & Rib Walls - Section 3
CON-14331	S2 - Wall L-1 - Cure Section 3	1	24-Oct-26	24-Oct-26	5609 - TCD [P]	S2 - Wall L-1 - Cure Section 3
CON-14351	S2 - Wall L-1 - Strip Panels Section 3	1	26-Oct-26	26-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Strip Panels Section 3
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Panels | Section 4		14	14-Nov-26	28-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Panels | Section 4
CON-54241	S2 - Wall L-1 - Drill & Install Rebar & Form Ties - Curtain Wall - Section 4	4	14-Oct-26	19-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Drill & Install Rebar & Form Ties - Curtain Wall - Section 4
CON-54251	S2 - Wall L-1 - FRP Curtain & Rib Walls - Section 4	4	27-Oct-26	30-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - FRP Curtain & Rib Walls - Section 4
CON-54261	S2 - Wall L-1 - Cure Section 4	1	31-Oct-26	31-Oct-26	5609 - TCD [P]	S2 - Wall L-1 - Cure Section 4
CON-54271	S2 - Wall L-1 - Strip Panels Section 4	1	02-Nov-26	02-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Strip Panels Section 4
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Void Space & Finishes		6	03-Nov-26	11-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Void Space & Finishes
CON-54281	S2 - Wall L-1 - Final Water Cure of Panels	6	03-Nov-26	09-Nov-26	5609 - TCD [P]	S2 - Wall L-1 - Final Water Cure of Panels
CON-54291	S2 - Wall L-1 - FRP Void Space Conc Slob	8	03-Nov-26	10-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - FRP Void Space Conc Slob
CON-14490	S2 - Wall L-1 - Surface Finish Front Face / Install Arch Finishes	5	09-Nov-26	15-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S2 - Wall L-1 - Surface Finish Front Face / Install Arch Finishes
CON-54301	S2 - Wall L-1 - Cure Void Space Conc Slob	7	11-Nov-26	17-Nov-26	5609 - TCD [P]	S2 - Wall L-1 - Cure Void Space Conc Slob

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar
Const | St 2 | Can Access | Seg L | Ret Fill Sta 57+83 to Sta 69+08 | Rdwy Section					
CON-14990	S2 - L-B7+83 to 69+08 - Place, Contour & Grade Vial BP & Ramp Embankment		5/17-Nov-26	01-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-15050	S2 - L-B7+83 to 69+08 - Fine Grade Subgrade		3/02-Dec-26	07-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-15030	S2 - L-B7+83 to 69+08 - Place & Fine Grade Agg Base		3/08-Dec-26	10-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-15040	S2 - L-B7+83 to 69+08 - Place HMA Pavement		1/24-Jun-27	24-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-15020	S2 - L-B7+83 to 69+08 - FRP Traffic Barrier		9/25-Jun-27	29-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 2 | Can Access | Seg L | Bridge Sta 69+08 to Sta 73+00					
Const | St 2 | Can Access | Seg L | Bridge Sta 69+08 to Sta 73+00 | Fr L-F1					
Const | St 2 | Can Access | Seg L | Bridge Sta 69+08 to Sta 73+00 | Fr L-F1 | F & S					
Const | St 2 | Can Access | Seg L | Sta 69+08 to Sta 73+00 | Fr L-F1 | F & S | Bent L-B72WA					
CON-30750	S2 - L-F1 - L-B72WA - Install CIDH Shaft(s)		4/19-Aug-26	24-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30760	S2 - L-F1 - L-B72WA - Cure Shaft		7/25-Aug-26	31-Aug-26	5609 - TCD [P]
CON-30770	S2 - L-F1 - L-B72WA - Prep Transition Zone/Set Column Cage & Guy		4/25-Aug-26	28-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30780	S2 - L-F1 - L-B72WA - Place Transition Zone Concrete		1/01-Sep-26	01-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30790	S2 - L-F1 - L-B72WA - Cure Transition Zone Concrete		7/02-Sep-26	08-Sep-26	5609 - TCD [P]
CON-30800	S2 - L-F1 - L-B72WA - Form Column		3/02-Sep-26	04-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30840	S2 - L-F1 - L-B72WA - Connect Thermal Control System		1/08-Sep-26	08-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30810	S2 - L-F1 - L-B72WA - Place Column Concrete		1/09-Sep-26	09-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30820	S2 - L-F1 - L-B72WA - Cure Column Concrete		7/10-Sep-26	18-Sep-26	5609 - TCD [P]
CON-30830	S2 - L-F1 - L-B72WA - Strip Column Forms 1 Day Minimum Removal		1/17-Sep-26	17-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 2 | Can Access | Seg L | Sta 69+08 to Sta 73+00 | Fr L-F1 | F & S | Bent L-B72W					
CON-40050	S2 - L-F1 - L-B72W - Install CIDH Shaft(s)		4/25-Aug-26	28-Aug-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-40060	S2 - L-F1 - L-B72W - Cure Shaft		7/29-Aug-26	24-Sep-26	5609 - TCD [P]
CON-40070	S2 - L-F1 - L-B72W - Prep Transition Zone/Set Column Cage & Guy		1/31-Aug-26	23-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-40080	S2 - L-F1 - L-B72W - Place Transition Zone Concrete		1/08-Sep-26	30-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-40090	S2 - L-F1 - L-B72W - Cure Transition Zone Concrete		7/09-Sep-26	15-Sep-26	5609 - TCD [P]
CON-40100	S2 - L-F1 - L-B72W - Form Column		3/09-Sep-26	11-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-40140	S2 - L-F1 - L-B72W - Connect Thermal Control System		1/14-Sep-26	14-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-40110	S2 - L-F1 - L-B72W - Place Column Concrete		1/15-Sep-26	16-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-40120	S2 - L-F1 - L-B72W - Cure Column Concrete		7/17-Sep-26	23-Sep-26	5609 - TCD [P]
CON-40130	S2 - L-F1 - L-B72W - Strip Column Forms 1 Day Minimum Removal		1/24-Sep-26	24-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 2 | Can Access | Seg L | Sta 69+08 to Sta 73+00 | Fr L-F1 | F & S | Bent L-B73A					
CON-30850	S2 - L-F1 - L-B73A - Install CIDH Shaft(s)		4/31-Aug-26	03-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30860	S2 - L-F1 - L-B73A - Cure Shaft		7/04-Sep-26	10-Sep-26	5609 - TCD [P]
CON-30870	S2 - L-F1 - L-B73A - Prep Transition Zone/Set Column Cage & Guy		4/04-Sep-26	10-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30880	S2 - L-F1 - L-B73A - Place Transition Zone Concrete		1/11-Sep-26	11-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30890	S2 - L-F1 - L-B73A - Cure Transition Zone Concrete		7/12-Sep-26	18-Sep-26	5609 - TCD [P]
CON-30900	S2 - L-F1 - L-B73A - Form Column		3/14-Sep-26	16-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30940	S2 - L-F1 - L-B73A - Connect Thermal Control System		1/17-Sep-26	17-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30910	S2 - L-F1 - L-B73A - Place Column Concrete		1/21-Sep-26	21-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30920	S2 - L-F1 - L-B73A - Cure Column Concrete		7/22-Sep-26	28-Sep-26	5609 - TCD [P]
CON-30930	S2 - L-F1 - L-B73A - Strip Column Forms 1 Day Minimum Removal		1/29-Sep-26	29-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 2 | Can Access | Seg L | Sta 69+08 to Sta 73+00 | Fr L-F1 | F & S | Bent L-B74A					
CON-30950	S2 - L-F1 - L-B74A - Install CIDH Shaft(s)		4/04-Sep-26	10-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30960	S2 - L-F1 - L-B74A - Cure Shaft		7/11-Sep-26	17-Sep-26	5609 - TCD [P]
CON-30970	S2 - L-F1 - L-B74A - Prep Transition Zone/Set Column Cage & Guy		4/11-Sep-26	16-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30980	S2 - L-F1 - L-B74A - Place Transition Zone Concrete		1/18-Sep-26	18-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-30990	S2 - L-F1 - L-B74A - Cure Transition Zone Concrete		7/18-Sep-26	25-Sep-26	5609 - TCD [P]
CON-31000	S2 - L-F1 - L-B74A - Form Column		3/21-Sep-26	23-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-31040	S2 - L-F1 - L-B74A - Connect Thermal Control System		1/24-Sep-26	24-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-31010	S2 - L-F1 - L-B74A - Place Column Concrete		1/28-Sep-26	28-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-31020	S2 - L-F1 - L-B74A - Cure Column Concrete		7/29-Sep-26	05-Oct-26	5609 - TCD [P]
CON-31030	S2 - L-F1 - L-B74A - Strip Column Forms 1 Day Minimum Removal		1/05-Oct-26	06-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 2 | Can Access | Seg L | Sta 69+08 to Sta 73+00 | Fr L-F1 | F & S | Bent L-B75A					
CON-31050	S2 - L-F1 - L-B75A - Install CIDH Shaft(s)		4/11-Sep-26	16-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-31080	S2 - L-F1 - L-B75A - Cure Shaft		7/17-Sep-26	23-Sep-26	5609 - TCD [P]
CON-31070	S2 - L-F1 - L-B75A - Prep Transition Zone/Set Column Cage & Guy		4/17-Sep-26	22-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-31080	S2 - L-F1 - L-B75A - Place Transition Zone Concrete	1	24-Sep-26	24-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-B75A - Place Transition Zone Concrete
CON-31090	S2 - L-F1 - L-B75A - Cure Transition Zone Concrete	7	25-Sep-26	01-Oct-26	5609 - TCD [P]	S2 - L-F1 - L-B75A - Cure Transition Zone Concrete
CON-31100	S2 - L-F1 - L-B75A - Form Column	3	25-Sep-26	29-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-B75A - Form Column
CON-31140	S2 - L-F1 - L-B75A - Connect Thermal Control System	1	30-Sep-26	30-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-B75A - Connect Thermal Control System
CON-31110	S2 - L-F1 - L-B75A - Place Column Concrete	1	02-Oct-26	02-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-B75A - Place Column Concrete
CON-31120	S2 - L-F1 - L-B75A - Cure Column Concrete	7	03-Oct-26	09-Oct-26	5609 - TCD [P]	S2 - L-F1 - L-B75A - Cure Column Concrete
CON-31130	S2 - L-F1 - L-B75A - Strip Column Forms 1 Day Minimum Removal	1	12-Oct-26	12-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-B75A - Strip Column Forms 1 Day Minimum Removal
Const | St 2 | Can Access | Seg L | Sta 69+08 to Sta 73+00 | Fr L-F1 | F & S | About L-A76A						
CON-30580	S2 - L-F1 - L-A76A - Install CIDH Shells	2	17-Sep-26	18-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Install CIDH Shells
CON-30720	S2 - L-F1 - L-A76A - Cure CIDH	7	18-Sep-26	25-Sep-26	5609 - TCD [P]	S2 - L-F1 - L-A76A - Cure CIDH
CON-30570	S2 - L-F1 - L-A76A - Install SDE/Excavate Footing	4	21-Sep-26	24-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Install SDE/Excavate Footing
CON-30710	S2 - L-F1 - L-A76A - Prep CIDH For Footing Construction	3	25-Sep-26	29-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Prep CIDH For Footing Construction
CON-30590	S2 - L-F1 - L-A76A - Form Footing/Dowel Template	3	30-Sep-26	02-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Form Footing/Dowel Template
CON-30600	S2 - L-F1 - L-A76A - Place Rebar	3	05-Oct-26	07-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Place Rebar
CON-30610	S2 - L-F1 - L-A76A - Place Footing Concrete	1	08-Oct-26	08-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Place Footing Concrete
CON-30620	S2 - L-F1 - L-A76A - Cure Footing Concrete	7	08-Oct-26	15-Oct-26	5609 - TCD [P]	S2 - L-F1 - L-A76A - Cure Footing Concrete
CON-30630	S2 - L-F1 - L-A76A - Strip Footing Forms/Dowel Template	1	09-Oct-26	09-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Strip Footing Forms/Dowel Template
CON-30640	S2 - L-F1 - L-A76A - Blast/Prep For Stems & Wings	1	12-Oct-26	12-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Blast/Prep For Stems & Wings
CON-30650	S2 - L-F1 - L-A76A - Form 15 Stems/Wings/Backwall	3	13-Oct-26	15-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Form 15 Stems/Wings/Backwall
CON-30660	S2 - L-F1 - L-A76A - Place Stem & Wing Rebar	3	16-Oct-26	20-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Place Stem & Wing Rebar
CON-30670	S2 - L-F1 - L-A76A - Form 25 Stems & Wings	2	21-Oct-26	23-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Form 25 Stems & Wings
CON-30680	S2 - L-F1 - L-A76A - Place Stem & Wing Concrete	1	23-Oct-26	23-Oct-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Place Stem & Wing Concrete
CON-30690	S2 - L-F1 - L-A76A - Cure Stem & Wing Concrete	7	24-Oct-26	30-Oct-26	5609 - TCD [P]	S2 - L-F1 - L-A76A - Cure Stem & Wing Concrete
CON-30700	S2 - L-F1 - L-A76A - Strip Stem & Wing Forms / Rough Surface Finish	2	02-Nov-26	03-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Strip Stem & Wing Forms / Rough Surface Finish
CON-30740	S2 - L-F1 - L-A76A - Backfill	1	04-Nov-26	04-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - L-A76A - Backfill
Const | Sta 2 | Can Access | Seg L | Bridge Sta 69+08 to Sta 73+00 | Fr L-F1 | PS Sup						
Const | St 2 | Can Access | Seg L | Sta 69+08 to Sta 73+00 | Fr L-F1 | PS Sup | FW						
CON-30550	S2 - L-F1 - FW - Install Grillage/Bent/Bent Caps/Posts/Stingers	5	24-Nov-26	10-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - FW - Install Grillage/Bent/Bent Caps/Posts/Stingers
CON-53931	S2 - L-F1 - FW - Release Falsework for Bridge Settlement	2	29-Apr-27	30-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - FW - Release Falsework for Bridge Settlement
CON-53941	S2 - L-F1 - FW - Remove Falsework	5	21-Jun-27	27-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - FW - Remove Falsework
Const | St 2 | Can Access | Seg L | Sta 69+08 to Sta 73+00 | Fr L-F1 | PS Sup | Soft & Stms						
CON-30490	S2 - L-F1 - S&S - Install Soft & Safety Rail	8	12-Nov-26	21-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - S&S - Install Soft & Safety Rail
CON-30460	S2 - L-F1 - S&S - Form Exterior Girder & OH	7	02-Dec-26	14-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - S&S - Form Exterior Girder & OH
CON-54391	S2 - L-F1 - S&S - Install Elastomeric Bearing Pads	4	02-Dec-26	26-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - S&S - Install Elastomeric Bearing Pads
CON-30480	S2 - L-F1 - S&S - Place Soft Rebar	9	06-Dec-26	26-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - S&S - Place Soft Rebar
CON-30490	S2 - L-F1 - S&S - Place Stem Rebar	9	07-Jan-27	19-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - S&S - Place Stem Rebar
CON-30500	S2 - L-F1 - S&S - Install PT Ducts	4	18-Jan-27	21-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - S&S - Install PT Ducts
CON-30470	S2 - L-F1 - S&S - Form Interior Girder & Walkways	4	22-Jan-27	27-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - S&S - Form Interior Girder & Walkways
CON-30540	S2 - L-F1 - S&S - Form End Diaphragms & Blockouts	4	26-Jan-27	02-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - S&S - Form End Diaphragms & Blockouts
CON-30510	S2 - L-F1 - S&S - Place Soft & Stem Concrete	2	03-Feb-27	04-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - S&S - Place Soft & Stem Concrete
CON-30520	S2 - L-F1 - S&S - Cure Soft & Stem Concrete	7	05-Feb-27	11-Feb-27	5609 - TCD [P]	S2 - L-F1 - S&S - Cure Soft & Stem Concrete
CON-30530	S2 - L-F1 - S&S - Strip Interior Girder Forms & Walkways	2	05-Feb-27	06-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - S&S - Strip Interior Girder Forms & Walkways
CON-30550	S2 - L-F1 - S&S - Strip End Diaphragms	1	06-Feb-27	06-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - S&S - Strip End Diaphragms
Const | St 2 | Can Access | Seg L | Sta 69+08 to Sta 73+00 | Fr L-F1 | PS Sup | Deck						
CON-30390	S2 - L-F1 - DECK - Form Lost Deck	6	10-Feb-27	22-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - DECK - Form Lost Deck
CON-30370	S2 - L-F1 - DECK - Form EOD	7	23-Feb-27	03-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - DECK - Form EOD
CON-30380	S2 - L-F1 - DECK - Install Scribed Rails & Run-Offs	9	24-Feb-27	06-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - DECK - Install Scribed Rails & Run-Offs
CON-30390	S2 - L-F1 - DECK - Place Deck Rebar	9	04-Mar-27	16-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - DECK - Place Deck Rebar
CON-30390	S2 - L-F1 - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	09-Mar-27	09-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - DECK - Set-up Bridge Finishing Machine & Work Bridges
CON-30420	S2 - L-F1 - DECK - Dry-run Bridge Finishing Machine	7	17-Mar-27	17-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - DECK - Dry-run Bridge Finishing Machine
CON-30400	S2 - L-F1 - DECK - Place Bridge Deck Concrete	2	16-Mar-27	19-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - DECK - Place Bridge Deck Concrete
CON-30410	S2 - L-F1 - DECK - Cure Bridge Deck Concrete	7	20-Mar-27	28-Mar-27	5609 - TCD [P]	S2 - L-F1 - DECK - Cure Bridge Deck Concrete
CON-30430	S2 - L-F1 - DECK - Strip Scribed Rails & EOD	2	22-Mar-27	23-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - DECK - Strip Scribed Rails & EOD
CON-30440	S2 - L-F1 - DECK - Strip GJ Bulkheads	1	23-Mar-27	23-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - DECK - Strip GJ Bulkheads
Const | St 2 | Can Access | Seg L | Sta 69+08 to Sta 73+00 | Fr L-F1 | PS Sup | PT & BW						
CON-30300	S2 - L-F1 - PT - Install PT Strands	4	23-Mar-27	28-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - PT - Install PT Strands
CON-30310	S2 - L-F1 - PT - Stress & Lock-off	3	29-Mar-27	01-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S2 - L-F1 - PT - Stress & Lock-off

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar	
CON-30320	S2 - L-F1 - PT - Grout PT Ducts		21-Apr-27	02-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-30330	S2 - L-F1 - PT - Strip Exterior Girder & Ch Forms		01-May-27	12-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-30340	S2 - L-F1 - PT - FRP PT Blackouts		03-Apr-27	15-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32050	S2 - L-F1 - PT - Place Backwall Rebar		16-Apr-27	16-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32060	S2 - L-F1 - PT - Form 2S Backwall		19-Apr-27	19-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32070	S2 - L-F1 - PT - Place Backwall Concrete		20-Apr-27	20-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32080	S2 - L-F1 - PT - Cure Backwall Concrete		21-Apr-27	27-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32090	S2 - L-F1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal		28-Apr-27	28-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32090	S2 - L-F1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal		28-Apr-27	28-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | S12 | Con Access | Seg L | Bridge Sta 69+08 to Sta 73+00 | Closure Pours			28-Apr-27	28-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-53651	S2 - Br L - CP - Prep Existing Docks		10-May-27	06-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-53681	S2 - Br L - CP - Bridge Settlement Period		01-May-27	14-May-27	5609 - TCD [P]	
Const | S12 | Con Access | Seg L | Bridge Sta 69+08 to Sta 73+00 | Closure Pours | Left CP			07-Apr-27	28-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-53671	S2 - Br L - Left CP - Form Closure Pour Soffit		07-Apr-27	09-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-53991	S2 - Br L - Left CP - Drill & Bond DOWELS		12-Apr-27	15-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-54001	S2 - Br L - Left CP - Install Rebar		16-Apr-27	19-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-54011	S2 - Br L - Left CP - Place Concrete		17-May-27	17-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-54021	S2 - Br L - Left CP - Cure Concrete		18-May-27	24-May-27	5609 - TCD [P]	
CON-54031	S2 - Br L - Left CP - Strip Closure Pour Soffit		25-May-27	25-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | S12 | Con Access | Seg L | Bridge Sta 69+08 to Sta 73+00 | Closure Pours | Right CP			28-Apr-27	28-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-54041	S2 - Br L - Right CP - Form Closure Pour Soffit		12-Apr-27	15-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-54051	S2 - Br L - Right CP - Drill & Bond DOWELS		19-Apr-27	28-Apr-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-54061	S2 - Br L - Right CP - Install Rebar		29-Apr-27	03-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-54071	S2 - Br L - Right CP - Place Concrete		16-May-27	18-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-54081	S2 - Br L - Right CP - Cure Concrete		19-May-27	25-May-27	5609 - TCD [P]	
CON-54091	S2 - Br L - Right CP - Strip Closure Pour Soffit		26-May-27	28-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | S12 | Con Access | Seg L | Bridge Sta 69+08 to Sta 73+00 | Finishes			12-Jun-27	23-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-10750	S2 - Br L - FRP Bridge Rail		08-Jun-27	10-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-54101	S2 - Br L - FRP Approach Slab		17-Jun-27	23-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-54111	S2 - Br L - Place Polymer Concrete Overlay		17-Jun-27	23-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | S12 | Con Access | Seg N			08-Aug-27	12-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | S12 | Con Access | Seg N | At Grade Sta 9+80 to Sta 13+10			08-Aug-27	12-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38190	S2 - N 9+80 to 13+10 - Remove Pavements & Hardscapes		08-Aug-27	10-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38200	S2 - N 9+80 to 13+10 - Perform Roadway Excavation		11-Aug-27	16-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38210	S2 - N 9+80 to 13+10 - Install Storm Drainage & Appurtenances		17-Aug-27	30-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38220	S2 - N 9+80 to 13+10 - Grade for Railwork & Barriers		31-Aug-27	03-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38230	S2 - N 9+80 to 13+10 - Place Railwork & Barriers		07-Sep-27	10-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38240	S2 - N 9+80 to 13+10 - Prep Subgrade & Place Agg Base		13-Sep-27	20-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38250	S2 - N 9+80 to 13+10 - Place Pavement		21-Sep-27	22-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38420	S2 - N 9+80 to 13+10 - Place Sidewalk & ADA Ramps		23-Sep-27	29-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38430	S2 - N 9+80 to 13+10 - Place Admin East Driveway		30-Sep-27	05-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38030	S2 - N 9+80 to 13+10 - Install Signing, Striping, Finishers in S12 Condition		05-Oct-27	12-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | Stage 3			03-May-27	14-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | Stage 3 | Sep Access			03-May-27	14-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | Stage 3 | Sep Access | MOT			03-May-27	14-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-52601	S3 - Establish MOT Measures Sepulveda Traffic Switch To NB Sep To Seg A2 Lanes		21-May-27	24-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32150	S3 - Establish MOT Measures Sepulveda Traffic Switch To NB Sep To Seg A2 Lanes		21-May-27	08-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-16550	S3 - Open Seg E from NB Sep to EB 96th		02-Sep-27	03-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-52611	S3 - Open Seg H from WB 96th to NB Sep		22-Sep-27	23-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-47861	S3 - Open Seg F Movement SB Sep to EB 96th		13-Oct-27	14-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51081	S3 - Establish MOT Measures Sepulveda Traffic Switch to SB Sep from Seg A/W Temp Conn		13-Oct-27	14-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | Stage 3 | Sep Access | Demo			21-May-27	23-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32180	S3 - Demolish Ex 96th Over Sep | Demo Permit & Walls @ Vicksburg		21-May-27	27-May-27	5609 - SWD, Hol	
CON-51291	S3 - Demolish Ex 96th Over Sep | Remove Light Fixtures & Metal Rail		21-May-27	27-May-27	5609 - SWD, Hol	
CON-52021	S3 - Remove Pavements 96th St Vicksburg to Jetway		26-May-27	02-Jun-27	5609 - SWD, Hol	
CON-51301	S3 - Demolish Ex 96th Over Sep | Demo SB Sep Span		05-Jun-27	06-Jun-27	5609 - Weekends, TDay, Xmas, WC, Oly	
CON-51311	S3 - Demolish Ex 96th Over Sep | Demo NB Sep Span		12-Jun-27	13-Jun-27	5609 - Weekends, TDay, Xmas, WC, Oly	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-51321	S3 - Demolish Ex 96th Over Sep | Demo Bridge Plans in Sep Med	2	4-Jun-27	15-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51331	S3 - Demolish Ex 96th Over Sep | Demo Span over Seg A	2	19-Jun-27	20-Jun-27	5609 - Weekends, TDay, Xmas, WC, Oly	
CON-51341	S3 - Demolish Ex 96th Over Sep | Demo West Stair Structure	2	21-Jun-27	22-Jun-27	5609 - SWD, Hol	
CON-51351	S3 - Demolish Ex 96th Over Sep | Demo East Stair Structure	2	23-Jun-27	24-Jun-27	5609 - SWD, Hol	
CON-51371	S3 - Demolish Ex 96th Over Sep | Demo Remaining Structure East of Sep	10	25-Jun-27	09-Jul-27	5609 - SWD, Hol	
CON-51381	S3 - Demolish Ex 96th Over Sep | Demo Remaining Structure West of Seg A	10	12-Jul-27	23-Jul-27	5609 - SWD, Hol	
Const | St 3 | Sep Access | Seg A		114	03-May-27	12-Oct-27		
Const | St 3 | Sep Access | Seg A | Finishes		114	03-May-27	12-Oct-27		
Const | St 3 | Sep Access | Seg A | Rdwy Finishes		75	28-Jun-27			
CON-20880	S3 - Seg A - Install Signs & Pymt Mkgs for Seg A NB 2-Lanes via Seg C	5	28-Jun-27	06-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32180	S3 - Seg A - Demo Sepulveda Curb & Pymts For Temp Tie-In	4	11-Aug-27	16-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-47541	S3 - Seg A - Perform Rdwy Exc for Temp Tie-In	3	17-Aug-27	19-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-47551	S3 - Seg A - Place Grd Subgrade & Place Agg Base For Temp Tie-In	6	20-Aug-27	27-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-47561	S3 - Seg A - Place Pymt for Temp Tie-In SB Sep to New Seg A Ramp	1	30-Aug-27	30-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-53701	S3 - Seg A - Install Crash Cushion at Seg A/F Gate	3	27-Sep-27	29-Sep-27	5609 - SWD, Hol	
CON-23600	S3 - Seg A - Install Signs & Pymt Mkgs for Seg A SB w/ Temp Gate	5	06-Oct-27	13-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 3 | Sep Access | Seg A | Electrical Finishes						
CON-22400	S3 - Seg A - Install Street Lighting Fixtures Sta 31+96 to Sta 36+15	3	03-May-27	05-May-27	5609 - SWD, Hol	
CON-22390	S3 - Seg A - Install Street Lighting Fixtures Bridge A - Frames 4 - 8	6	15-Jun-27	25-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-22480	S3 - Seg A - Install OHS & ITS Gantries Bridge A - Frames 4 - 8	8	19-Jun-27	28-Jun-27	5609 - SWD, Hol	
CON-22480	S3 - Seg A - Install OHS Wayfinding Signage Bridge A - Frames 4 - 8	2	30-Jun-27	01-Jul-27	5609 - SWD, Hol	
CON-23590	S3 - Seg A - Install OHS Wayfinding Signage Ex Bridge Over Sep	2	30-Jul-27	26-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-22430	S3 - Seg A - Install Bridge Soft Lighting Frame A-F8	5	29-Jul-27	15-Jul-27	5609 - SWD, Hol	
CON-22440	S3 - Seg A - Install Bridge Soft Lighting Frame A-F7 & A-F8 over Century	5	16-Jul-27	22-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-22410	S3 - Seg A - Install Bridge Soft Lighting Frame A-F1 over Sepulveda	6	28-Jul-27	12-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-22420	S3 - Seg A - Install Bridge Soft Lighting Frame A-F2 thru A-F5	10	02-Sep-27	18-Sep-27	5609 - SWD, Hol	
CON-22380	S3 - Seg A - Install Street Lighting Fixtures Sta 14+91 to Sta 20+50	4	24-Sep-27	29-Sep-27	5609 - SWD, Hol	
CON-51071	S3 - Seg A - Install Street Lighting Fixtures Bridge A - Frames 1 - 3	4	27-Sep-27	30-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-52111	S3 - Seg A - Install OHS & ITS Gantries Bridge A - Frames 1 - 3	4	27-Sep-27	30-Sep-27	5609 - SWD, Hol	
CON-22450	S3 - Seg A - Install OHS & ITS Gantries Sta 14+91 to Sta 20+50	3	30-Sep-27	04-Oct-27	5609 - SWD, Hol	
CON-52121	S3 - Seg A - Install OHS Wayfinding Signage Bridge A - Frames 1 - 3	2	01-Oct-27	04-Oct-27	5609 - SWD, Hol	
CON-22470	S3 - Seg A - Install OHS Wayfinding Signage Sta 14+91 to Sta 20+50	1	05-Oct-27	06-Oct-27	5609 - SWD, Hol	
Const | St 3 | Sep Access | Seg E		64	03-Jun-27	07-Sep-27		
Const | St 3 | Sep Access | Seg E | At Grade Sta 7+76 to Sta 13+97		38	03-Jun-27	27-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49771	S3 - E 7+76 to 13+97 - Perform Rdwy Exc / Fill	2	09-Jun-27	04-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49781	S3 - E 7+76 to 13+97 - Install Storm Drainage & Appurtenances	12	07-Jun-27	22-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49801	S3 - E 7+76 to 13+97 - Install Curb & Gutter	8	23-Jun-27	02-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49811	S3 - E 7+76 to 13+97 - Install Street Lighting & OHS Foundations	2	06-Jul-27	07-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49821	S3 - E 7+76 to 13+97 - Prep Subgrade & Place Agg Base	13	08-Jul-27	26-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49831	S3 - E 7+76 to 13+97 - Place HMA Base Course	1	27-Jul-27	27-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 3 | Sep Access | Seg E | Roadway Finishes		26	28-Jul-27	01-Sep-27		
CON-19841	S3 - Seg E - Install Street Lighting Fixtures & Appurtenances	4	28-Jul-27	07-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49851	S3 - Seg E - Install OHS, ITS Gantries & Wayfinding Signs	6	03-Aug-27	10-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-47661	S3 - Seg E - Place Pymt Wearing Course	2	24-Aug-27	25-Aug-27	5609 - SWD, Hol	
CON-15300	S3 - Seg E - Place Pymt Mkgs & Signs for Stage 3 Config	5	28-Aug-27	01-Sep-27	5609 - SWD, Hol	
Const | St 3 | Sep Access | Seg G		85	28-May-27			
Const | St 3 | Sep Access | Seg G | Retained Fill Sta 15+18 to Sta 16+89		85	28-May-27	06-Oct-27		
Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-1		25	28-May-27	23-Jul-27		
Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-1 | Footing		24	28-May-27	26-Jun-27		
CON-13830	S3 - Wall G-1 - Fig A - Prep Work Pad for CIDH & Excavate	4	28-May-27	03-Jun-27	5609 - SWD, Hol	
CON-13840	S3 - Wall G-1 - Fig A - Install CIDH Shafts	5	07-Jun-27	11-Jun-27	5609 - SWD, Hol	
CON-13850	S3 - Wall G-1 - Fig A - Curb CIDH Shafts	7	12-Jun-27	18-Jun-27	5609 - TCD (F)	
CON-15440	S3 - Wall G-1 - Fig A - Sandblast CIDH Shafts	1	14-Jun-27	14-Jun-27	5609 - SWD, Hol	
CON-15510	S3 - Wall G-1 - Fig A - Fine Grade	2	15-Jun-27	16-Jun-27	5609 - SWD, Hol	
CON-13880	S3 - Wall G-1 - Fig A - FRP Footing	5	21-Jun-27	25-Jun-27	5609 - SWD, Hol	
CON-15540	S3 - Wall G-1 - Fig A - Backfill to Top of Fig	1	28-Jun-27	28-Jun-27	5609 - SWD, Hol	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	Activity ID	Activity Name	Planning	Start	Finish	Calendar
CON-47000	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-1 | Footing B		10/10-Jun-27	23-Jun-27	5609 - SWD, Hol	CON-47000	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-1 | Footing B		10/10-Jun-27	23-Jun-27	5609 - SWD, Hol
CON-47001	S3 - Wall G-1 - Fig B - Prep Work Pad & Excavate		2/10-Jun-27	11-Jun-27	5609 - SWD, Hol	CON-47001	S3 - Wall G-1 - Fig B - Prep Work Pad & Excavate		2/10-Jun-27	11-Jun-27	5609 - SWD, Hol
CON-47021	S3 - Wall G-1 - Fig B - Perform Soil Correction		2/14-Jun-27	15-Jun-27	5609 - SWD, Hol	CON-47021	S3 - Wall G-1 - Fig B - Perform Soil Correction		2/14-Jun-27	15-Jun-27	5609 - SWD, Hol
CON-13900	S3 - Wall G-1 - Fig B - Excavate Keyway & Fine Grade		1/16-Jun-27	16-Jun-27	5609 - SWD, Hol	CON-13900	S3 - Wall G-1 - Fig B - Excavate Keyway & Fine Grade		1/16-Jun-27	16-Jun-27	5609 - SWD, Hol
CON-15530	S3 - Wall G-1 - Fig B - FRP Footing		4/17-Jun-27	22-Jun-27	5609 - SWD, Hol	CON-15530	S3 - Wall G-1 - Fig B - FRP Footing		4/17-Jun-27	22-Jun-27	5609 - SWD, Hol
CON-15530	S3 - Wall G-1 - Fig B - Backfill to Top of Fig		1/23-Jun-27	23-Jun-27	5609 - SWD, Hol	CON-15530	S3 - Wall G-1 - Fig B - Backfill to Top of Fig		1/23-Jun-27	23-Jun-27	5609 - SWD, Hol
CON-13620	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-1 | Section 1		4/29-Jun-27	02-Jul-27	5609 - SWD, Hol	CON-13620	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-1 | Section 1		4/29-Jun-27	02-Jul-27	5609 - SWD, Hol
CON-13950	S3 - Wall G-1 - FRP Panels Section 1		7/03-Jul-27	06-Jul-27	5609 - TCD (P)	CON-13950	S3 - Wall G-1 - FRP Panels Section 1		7/03-Jul-27	06-Jul-27	5609 - TCD (P)
CON-13980	S3 - Wall G-1 - Strip Panels Section 1		2/26-Jul-27	27-Jul-27	5609 - SWD, Hol	CON-13980	S3 - Wall G-1 - Strip Panels Section 1		2/26-Jul-27	27-Jul-27	5609 - SWD, Hol
CON-13930	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-1 | Section 2		4/29-Jun-27	19-Jul-27	5609 - SWD, Hol	CON-13930	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-1 | Section 2		4/29-Jun-27	19-Jul-27	5609 - SWD, Hol
CON-13960	S3 - Wall G-1 - FRP Panels Section 2		4/26-Jul-27	29-Jul-27	5609 - SWD, Hol	CON-13960	S3 - Wall G-1 - FRP Panels Section 2		4/26-Jul-27	29-Jul-27	5609 - SWD, Hol
CON-13990	S3 - Wall G-1 - Cure Section 2		7/03-Jul-27	06-Jul-27	5609 - TCD (P)	CON-13990	S3 - Wall G-1 - Cure Section 2		7/03-Jul-27	06-Jul-27	5609 - TCD (P)
CON-13990	S3 - Wall G-1 - Strip Panels Section 2		2/26-Jul-27	27-Jul-27	5609 - SWD, Hol	CON-13990	S3 - Wall G-1 - Strip Panels Section 2		2/26-Jul-27	27-Jul-27	5609 - SWD, Hol
CON-14470	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-1 | Finishes		5/19-Jul-27	23-Jul-27	5609 - SWD, Hol	CON-14470	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-1 | Finishes		5/19-Jul-27	23-Jul-27	5609 - SWD, Hol
CON-14470	S3 - Wall G-1 - Surface Finish Front Face / Install Arch Finishes		5/19-Jul-27	23-Jul-27	5609 - SWD, Hol	CON-14470	S3 - Wall G-1 - Surface Finish Front Face / Install Arch Finishes		5/19-Jul-27	23-Jul-27	5609 - SWD, Hol
CON-14010	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-2 | Footing A		22/04-Jun-27	06-Jul-27	5609 - SWD, Hol	CON-14010	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-2 | Footing A		22/04-Jun-27	06-Jul-27	5609 - SWD, Hol
CON-14010	S3 - Wall G-2 - Fig A - Prep Work Pad for CIDH / Remove Ex Permits / Excavate		4/04-Jun-27	06-Jun-27	5609 - SWD, Hol	CON-14010	S3 - Wall G-2 - Fig A - Prep Work Pad for CIDH / Remove Ex Permits / Excavate		4/04-Jun-27	06-Jun-27	5609 - SWD, Hol
CON-14020	S3 - Wall G-2 - Fig A - Install CIDH Shafts		5/16-Jun-27	15-Jun-27	5609 - SWD, Hol	CON-14020	S3 - Wall G-2 - Fig A - Install CIDH Shafts		5/16-Jun-27	15-Jun-27	5609 - SWD, Hol
CON-14030	S3 - Wall G-2 - Fig A - Cure CIDH Shafts		7/19-Jun-27	25-Jun-27	5609 - TCD (P)	CON-14030	S3 - Wall G-2 - Fig A - Cure CIDH Shafts		7/19-Jun-27	25-Jun-27	5609 - TCD (P)
CON-14050	S3 - Wall G-2 - Fig A - Sandblast CIDH		1/21-Jun-27	21-Jun-27	5609 - SWD, Hol	CON-14050	S3 - Wall G-2 - Fig A - Sandblast CIDH		1/21-Jun-27	21-Jun-27	5609 - SWD, Hol
CON-14040	S3 - Wall G-2 - Fig A - Fine Grade for Fig		2/22-Jun-27	23-Jun-27	5609 - SWD, Hol	CON-14040	S3 - Wall G-2 - Fig A - Fine Grade for Fig		2/22-Jun-27	23-Jun-27	5609 - SWD, Hol
CON-14080	S3 - Wall G-2 - Fig A - FRP Footing		5/28-Jun-27	02-Jul-27	5609 - SWD, Hol	CON-14080	S3 - Wall G-2 - Fig A - FRP Footing		5/28-Jun-27	02-Jul-27	5609 - SWD, Hol
CON-14060	S3 - Wall G-2 - Fig A - Backfill to Top of Fig		1/08-Jul-27	06-Jul-27	5609 - SWD, Hol	CON-14060	S3 - Wall G-2 - Fig A - Backfill to Top of Fig		1/08-Jul-27	06-Jul-27	5609 - SWD, Hol
CON-14070	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-2 | Footing B		3/16-Jun-27	16-Jun-27	5609 - SWD, Hol	CON-14070	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-2 | Footing B		3/16-Jun-27	16-Jun-27	5609 - SWD, Hol
CON-14100	S3 - Wall G-2 - Fig B - Prep Work Pad & Excavate		2/17-Jun-27	18-Jun-27	5609 - SWD, Hol	CON-14100	S3 - Wall G-2 - Fig B - Prep Work Pad & Excavate		2/17-Jun-27	18-Jun-27	5609 - SWD, Hol
CON-14090	S3 - Wall G-2 - Fig B - Perform Soil Correction		2/21-Jun-27	22-Jun-27	5609 - SWD, Hol	CON-14090	S3 - Wall G-2 - Fig B - Perform Soil Correction		2/21-Jun-27	22-Jun-27	5609 - SWD, Hol
CON-14110	S3 - Wall G-2 - Fig B - FRP Footing		5/23-Jun-27	29-Jun-27	5609 - SWD, Hol	CON-14110	S3 - Wall G-2 - Fig B - FRP Footing		5/23-Jun-27	29-Jun-27	5609 - SWD, Hol
CON-14150	S3 - Wall G-2 - Fig B - Backfill to Top of Fig		1/30-Jun-27	30-Jun-27	5609 - SWD, Hol	CON-14150	S3 - Wall G-2 - Fig B - Backfill to Top of Fig		1/30-Jun-27	30-Jun-27	5609 - SWD, Hol
CON-14120	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-2 | Section 1		4/07-Jul-27	12-Jul-27	5609 - SWD, Hol	CON-14120	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-2 | Section 1		4/07-Jul-27	12-Jul-27	5609 - SWD, Hol
CON-14150	S3 - Wall G-2 - Cure Section 1		7/13-Jul-27	19-Jul-27	5609 - TCD (P)	CON-14150	S3 - Wall G-2 - Cure Section 1		7/13-Jul-27	19-Jul-27	5609 - TCD (P)
CON-14200	S3 - Wall G-2 - Strip Panels Section 1		2/14-Jul-27	15-Jul-27	5609 - SWD, Hol	CON-14200	S3 - Wall G-2 - Strip Panels Section 1		2/14-Jul-27	15-Jul-27	5609 - SWD, Hol
CON-14130	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-2 | Section 2		6/07-Jul-27	14-Jul-27	5609 - SWD, Hol	CON-14130	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-2 | Section 2		6/07-Jul-27	14-Jul-27	5609 - SWD, Hol
CON-14170	S3 - Wall G-2 - FRP Panels Section 2		7/15-Jul-27	21-Jul-27	5609 - TCD (P)	CON-14170	S3 - Wall G-2 - FRP Panels Section 2		7/15-Jul-27	21-Jul-27	5609 - TCD (P)
CON-14210	S3 - Wall G-2 - Strip Panels Section 2		2/18-Jul-27	19-Jul-27	5609 - SWD, Hol	CON-14210	S3 - Wall G-2 - Strip Panels Section 2		2/18-Jul-27	19-Jul-27	5609 - SWD, Hol
CON-14140	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-2 | Section 3		9/16-Jul-27	29-Jul-27	5609 - SWD, Hol	CON-14140	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-2 | Section 3		9/16-Jul-27	29-Jul-27	5609 - SWD, Hol
CON-14180	S3 - Wall G-2 - FRP Panels Section 3		4/16-Jul-27	21-Jul-27	5609 - SWD, Hol	CON-14180	S3 - Wall G-2 - FRP Panels Section 3		4/16-Jul-27	21-Jul-27	5609 - SWD, Hol
CON-14220	S3 - Wall G-2 - Cure Section 3		7/22-Jul-27	28-Jul-27	5609 - TCD (P)	CON-14220	S3 - Wall G-2 - Cure Section 3		7/22-Jul-27	28-Jul-27	5609 - TCD (P)
CON-14220	S3 - Wall G-2 - Strip Panels Section 3		2/23-Jul-27	26-Jul-27	5609 - SWD, Hol	CON-14220	S3 - Wall G-2 - Strip Panels Section 3		2/23-Jul-27	26-Jul-27	5609 - SWD, Hol
CON-14460	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-2 | Finishes		5/29-Jul-27	04-Aug-27	5609 - SWD, Hol	CON-14460	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Wall G-2 | Finishes		5/29-Jul-27	04-Aug-27	5609 - SWD, Hol
CON-14460	S3 - Wall G-2 - Surface Finish Front Face / Install Arch Finishes		5/29-Jul-27	04-Aug-27	5609 - SWD, Hol	CON-14460	S3 - Wall G-2 - Surface Finish Front Face / Install Arch Finishes		5/29-Jul-27	04-Aug-27	5609 - SWD, Hol
CON-14920	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Rdwy Section		4/19-Jun-27	04-Jul-27	5609 - SWD, Hol	CON-14920	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Rdwy Section		4/19-Jun-27	04-Jul-27	5609 - SWD, Hol
CON-14930	S3 - G 15+18 to 16+89 - Place, Contour & Grade Wall BF & Ramp Embankment		11/23-Jun-27	12-Aug-27	5609 - SWD, Hol	CON-14930	S3 - G 15+18 to 16+89 - Place, Contour & Grade Wall BF & Ramp Embankment		11/23-Jun-27	12-Aug-27	5609 - SWD, Hol
CON-14940	S3 - G 15+18 to 16+89 - Install Drainage Pipe & Appurtenances		5/13-Aug-27	19-Aug-27	5609 - SWD, Hol	CON-14940	S3 - G 15+18 to 16+89 - Install Drainage Pipe & Appurtenances		5/13-Aug-27	19-Aug-27	5609 - SWD, Hol
CON-14950	S3 - G 15+18 to 16+89 - Fine Grade Subgrade		10/18-Aug-27	31-Aug-27	5609 - SWD, Hol	CON-14950	S3 - G 15+18 to 16+89 - Fine Grade Subgrade		10/18-Aug-27	31-Aug-27	5609 - SWD, Hol
CON-14960	S3 - G 15+18 to 16+89 - Place & Fine Grade Agg Base		3/01-Sep-27	03-Sep-27	5609 - SWD, Hol	CON-14960	S3 - G 15+18 to 16+89 - Place & Fine Grade Agg Base		3/01-Sep-27	03-Sep-27	5609 - SWD, Hol
CON-14970	S3 - G 15+18 to 16+89 - Place HMA Pavement		9/07-Sep-27	13-Sep-27	5609 - SWD, Hol	CON-14970	S3 - G 15+18 to 16+89 - Place HMA Pavement		9/07-Sep-27	13-Sep-27	5609 - SWD, Hol
CON-20870	S3 - Seg G - Construct Final Roadway Finishes		4/14-Sep-27	17-Sep-27	5609 - SWD, Hol	CON-20870	S3 - Seg G - Construct Final Roadway Finishes		4/14-Sep-27	17-Sep-27	5609 - SWD, Hol
CON-20870	S3 - Seg G - Construct Final Roadway Finishes		1/20-Sep-27	20-Sep-27	5609 - SWD, Hol	CON-20870	S3 - Seg G - Construct Final Roadway Finishes		1/20-Sep-27	20-Sep-27	5609 - SWD, Hol
CON-20870	S3 - Seg G - Construct Final Roadway Finishes		10/21-Sep-27	04-Oct-27	5609 - SWD, Hol	CON-20870	S3 - Seg G - Construct Final Roadway Finishes		10/21-Sep-27	04-Oct-27	5609 - SWD, Hol
CON-20650	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Rdwy Section		25/29-Jul-27	01-Sep-27	5609 - SWD, Hol	CON-20650	Const | St 3 | Sep Access | Seg G | Ret Fill Sta 15+18 to Sta 16+89 | Rdwy Section		25/29-Jul-27	01-Sep-27	5609 - SWD, Hol
CON-20650	S3 - G 16+89 to 18+24 - Remove Pavements & Hardscapes		4/29-Jul-27	33-Aug-27	5609 - SWD, Hol	CON-20650	S3 - G 16+89 to 18+24 - Remove Pavements & Hardscapes		4/29-Jul-27	33-Aug-27	5609 - SWD, Hol

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar	
CON-20680	S3 - G 16+89 to 18+24 - Perform Roadway Excavation	2	04-Aug-27	05-Aug-27	5609 - SWD, Hol	S3 - G 16+89 to 18+24 - Perform Roadway Excavation
CON-20690	S3 - G 16+89 to 18+24 - Install Storm Drainage & Appurtenances	8	05-Aug-27	17-Aug-27	5609 - SWD, Hol	S3 - G 16+89 to 18+24 - Install Storm Drainage & Appurtenances
CON-20730	S3 - G 16+89 to 18+24 - Grade for Flatwork & Barriers	2	18-Aug-27	19-Aug-27	5609 - SWD, Hol	S3 - G 16+89 to 18+24 - Grade for Flatwork & Barriers
CON-20740	S3 - G 16+89 to 18+24 - Place Flatwork & Barriers	5	20-Aug-27	23-Aug-27	5609 - SWD, Hol	S3 - G 16+89 to 18+24 - Place Flatwork & Barriers
CON-20770	S3 - G 16+89 to 18+24 - Prep Subgrade & Place Agg Base	3	27-Aug-27	31-Aug-27	5609 - SWD, Hol	S3 - G 16+89 to 18+24 - Prep Subgrade & Place Agg Base
CON-20780	S3 - G 16+89 to 18+24 - Place Pavement	1	01-Sep-27	01-Sep-27	5609 - SWD, Hol	S3 - G 16+89 to 18+24 - Place Pavement
Const | Stage 3 | Century Access | Seg H						
75	04-Jun-27	21-Sep-27				21-Sep-27, Const | Stage 3 | Century Access | Seg H
Const | Stage 3 | Century Access | Seg H | At Grade Sta 10+93 to Sta 17+00						21-Sep-27, Const | Stage 3 | Century Access | Seg H | At Grade Sta 10+93 to
CON-31390	S3 - H 10+93 to 17+00 - Perform Roadway Excavation	3	07-Jun-27	08-Jun-27	5609 - SWD, Hol	S3 - H 10+93 to 17+00 - Perform Roadway Excavation
CON-31450	S3 - H 10+93 to 17+00 - Install Storm Drainage & Appurtenances	20	10-Jun-27	08-Jul-27	5609 - SWD, Hol	S3 - H 10+93 to 17+00 - Install Storm Drainage & Appurtenances
CON-31410	S3 - H 10+93 to 17+00 - Install Curb & Gutter	4	09-Jul-27	14-Jul-27	5609 - SWD, Hol	S3 - H 10+93 to 17+00 - Install Curb & Gutter
CON-52631	S3 - H 10+93 to 17+00 - Install Curb & Intersection Gutter at Onramp	4	18-Jul-27	20-Jul-27	5609 - SWD, Hol	S3 - H 10+93 to 17+00 - Install Curb & Intersection Gutter at Onramp
CON-52641	S3 - H 10+93 to 17+00 - Install Street Lighting Foundations & Conduit	3	15-Jul-27	19-Jul-27	5609 - SWD, Hol	S3 - H 10+93 to 17+00 - Install Street Lighting Foundations & Conduit
CON-31420	S3 - H 10+93 to 17+00 - Prep Subgrade & Place Agg Base	11	27-Jul-27	10-Aug-27	5609 - SWD, Hol	S3 - H 10+93 to 17+00 - Prep Subgrade & Place Agg Base
CON-31430	S3 - H 10+93 to 17+00 - Place ACP Base Course	1	11-Aug-27	11-Aug-27	5609 - SWD, Hol	S3 - H 10+93 to 17+00 - Place ACP Base Course
CON-52651	S3 - H 10+93 to 17+00 - FRP Traffic Barrier Seg E / at Gore	6	12-Aug-27	19-Aug-27	5609 - SWD, Hol	S3 - H 10+93 to 17+00 - FRP Traffic Barrier Seg E / at Gore
CON-52661	S3 - H 10+93 to 17+00 - Install Street Lighting Poles & Fixtures	3	19-Aug-27	19-Aug-27	5609 - SWD, Hol	S3 - H 10+93 to 17+00 - Install Street Lighting Poles & Fixtures
CON-52671	S3 - H 10+93 to 17+00 - Place ACP Weaving Course	2	20-Aug-27	23-Aug-27	5609 - SWD, Hol	S3 - H 10+93 to 17+00 - Place ACP Weaving Course
CON-31440	S3 - H 10+93 to 17+00 - Construct Final Roadway Finishes	20	24-Aug-27	21-Sep-27	5609 - SWD, Hol	S3 - H 10+93 to 17+00 - Construct Final Roadway Finishes
Const | Stage 3 | Century Access						
Const | Stage 3 | Century Access | MOT						20-Oct-27, Const | Stage 3 | Century Access
CON-41080	S3 - MOT - Open Seg J - 2 Lanes	2	28-Sep-27	29-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	28-Sep-27, Const | Stage 3 | Century Access | MOT
Const | Stage 3 | Century Access | Seg J						S3 - MOT - Open Seg J - 2 Lanes
Const | Stage 3 | Century Access | Seg J | At Grade Sta 12+70 to Sta 16+14 (WB Century Widening)						27-Sep-27, Const | Stage 3 | Century Access | Seg J
CON-40010	S3 - Seg J - Sta 12+70 to Sta 16+14 - Demo Existing Curb & Gutter	4	17-May-27	20-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	15-Jun-27, Const | Stage 3 | Century Access | Seg J | At Grade Sta 12+70 to
CON-40020	S3 - Seg J - Sta 12+70 to Sta 16+14 - Perform Roadway Excavation	3	21-May-27	25-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 12+70 to Sta 16+14 - Perform Roadway Excavation
CON-40030	S3 - Seg J - Sta 12+70 to Sta 16+14 - Grade for Curb & Gutter	3	26-May-27	29-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 12+70 to Sta 16+14 - Grade for Curb & Gutter
CON-40810	S3 - Seg J - Sta 12+70 to Sta 16+14 - Place Curb & Gutter	4	01-Jun-27	04-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 12+70 to Sta 16+14 - Place Curb & Gutter
CON-40820	S3 - Seg J - Sta 12+70 to Sta 16+14 - Install & Fine Grade Agg Base	5	07-Jun-27	11-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 12+70 to Sta 16+14 - Install & Fine Grade Agg Base
CON-40830	S3 - Seg J - Sta 12+70 to Sta 16+14 - Place ACP Base Course	2	14-Jun-27	15-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 12+70 to Sta 16+14 - Place ACP Base Course
Const | Stage 3 | Century Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35						17-Sep-27, Const | Stage 3 | Century Access | Seg J | Ret Fill Sta 16+14 to
CON-40840	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Install Storm Drainage & Appurtenances	3	17-May-27	20-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	07-Jul-27, Const | Stage 3 | Century Access | Seg J | Ret Fill Sta 16+14 to
CON-40870	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Slew & Demo Temp Pavement Edge	2	27-May-27	28-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Install Storm Drainage & Appur
CON-41100	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Install Street Lighting & CHSS Fixtures	6	01-Jun-27	08-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Slew & Demo Temp Pavem
CON-40880	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Fine Grade Subgrade	3	09-Jun-27	11-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Install Street Lighting & CHSS
CON-40890	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Place & Fine Grade Agg Base	10	14-Jun-27	25-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Fine Grade Subgrade
CON-40900	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Place ACP Base Course	2	28-Jun-27	29-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Place & Fine Grade Agg Bas
CON-40860	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - FRP Traffic Barrier	5	30-Jun-27	07-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Place ACP Base Course
Const | Stage 3 | Century Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Right Lane						17-Sep-27, Const | Stage 3 | Century Access | Seg J | Ret Fill Sta 16+14 to
CON-40910	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Shift Traffic South	2	13-Jul-27	14-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - FRP Traffic Barrier
CON-40920	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Slew & Demo Temp Pavem	4	15-Jul-27	20-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Shift Traffic South
CON-40930	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Perform Roadway Excavation	3	21-Jul-27	23-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Slew & Demo Temp P
CON-40940	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Install Storm Drainage & Appurtenances	8	28-Jul-27	04-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Perform Roadway Excav
CON-40950	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Grade for Curb & Gutter	4	05-Aug-27	10-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Install Storm Drainage &
CON-40960	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Place Curb & Gutter	5	11-Aug-27	17-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Grade for Curb & Gutter
CON-40970	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Fine Grade Subgrade	6	18-Aug-27	24-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Place Curb & Gutter
CON-40980	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Place & Fine Grade Agg Base	11	25-Aug-27	09-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Fine Grade Subgrade
CON-40990	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Place ACP Base Course	2	10-Sep-27	13-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Place & Fine Grade Agg A
CON-41120	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - FRP Traffic Barrier	4	14-Sep-27	17-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Place ACP Base Cou
Const | Stage 3 | Century Access | Seg J | Roadway Finishes						27-Sep-27, Const | Stage 3 | Century Access | Seg J | Roadway Finishes
CON-41021	S3 - Seg J - Install CHSS & Weaving Signs	3	16-Jun-27	18-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Install CHSS & Weaving Signs
CON-41011	S3 - Seg J - Install Street Lighting Fixtures	3	08-Jul-27	12-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Install Street Lighting Fixtures
CON-41031	S3 - Seg J - Install ITS Gantry	2	14-Sep-27	15-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Install ITS Gantry
CON-41001	S3 - Seg J - Mill & Overlay Pavement Weaving Course / Place 2" Em Striping & Signs	6	20-Sep-27	27-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	S3 - Seg J - Mill & Overlay Pavement Weaving Course / Place 2" Em Strip
Const | Stage 3 | Century Access | Century Blvd | Little Century - Seg J Gore to Sep						

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

SKANSKA FLATIRON

ATMP PRELIMINARY CONSTRUCTION SCHEDULE

Update 20-C

Activity ID	Activity Name	Start	Finish	Calendar
CON-41150	S3 - Century Blvd - Sawcut & Remove Pymnt & Perform Rdwy Exc	5 13-Sep-27	17-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-41500	S3 - Century Blvd - Grade for Curb & Gutter	6 20-Sep-27	27-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-41510	S3 - Century Blvd - Place Curb & Gutter	6 28-Sep-27	30-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-41520	S3 - Century Blvd - Place & Finish Grade Agg Base	6 09-Oct-27	12-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-41530	S3 - Century Blvd - Place ACP Base Course	2 13-Oct-27	14-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-41540	S3 - Century Blvd - Mill & Overlay Pymnt Wearing Course / Place Pymnt Markings	4 15-Oct-27	20-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | Stage 4				
Const | St 4 | Sep Access				
CON-47531	S4 - Open Sep A CTA Tie-in Stage 4 Configuration	1 13-Dec-27	13-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-47541	S4 - Open Sep A Ramp from SB Sep in Stage 4 Configuration	2 28-Jan-28	27-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 4 | Sep Access | Seg A				
Const | St 4 | Sep Access | Seg A | At Grade Sta 10+87 to Sta 15+55				
CON-32170	S4 - A 10+87 to 15+55 - Demo SB Sepulveda to Skyway Ramp	5 15-Oct-27	21-Oct-27	5609 - SWD, Hol
CON-32190	S4 - A 10+87 to 15+55 - Perform Roadway Excavation - Gore	2 22-Oct-27	25-Oct-27	5609 - SWD, Hol
CON-47571	S4 - A 10+87 to 15+55 - Install Drainage - Gore	10 30-Nov-27	15-Dec-27	5609 - SWD, Hol
CON-32200	S4 - A 10+87 to 15+55 - Place Pavement & Barriers - Gore	3 15-Dec-27	21-Dec-27	5609 - SWD, Hol
CON-32210	S4 - A 10+87 to 15+55 - Place Pavement & Barriers - Gore	4 22-Dec-27	28-Dec-27	5609 - SWD, Hol
CON-32220	S4 - A 10+87 to 15+55 - Prep Subgrade & Place Agg Base - Gore	4 29-Dec-27	04-Jan-28	5609 - SWD, Hol
CON-32230	S4 - A 10+87 to 15+55 - Place Pavement Base Course - Gore	1 05-Jan-28	05-Jan-28	5609 - SWD, Hol
CON-47581	S4 - A 10+87 to 15+55 - Install Street Lighting - Gore	3 06-Jan-28	10-Jan-28	5609 - SWD, Hol
CON-53591	S4 - A 10+87 to 15+55 - Install CMU ADA Fence	8 06-Jan-28	17-Jan-28	5609 - SWD, Hol
CON-47591	S4 - A 10+87 to 15+55 - Place Pavement Wearing Course - Gore	1 18-Jan-28	18-Jan-28	5609 - SWD, Hol
CON-47601	S4 - A 10+87 to 15+55 - Place Pavement Markings & Signs Stage 4 Config - Gore	5 19-Jan-28	25-Jan-28	5609 - SWD, Hol
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B				
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Footing & F				
CON-15471	S4 - Wall A-2A&B - Pig 2A-F - Excavate Inc Over Exc	3 22-Oct-27	26-Oct-27	5609 - SWD, Hol
CON-15481	S4 - Wall A-2A&B - Pig 2A-F - Place Soil Connection Mf	2 27-Oct-27	28-Oct-27	5609 - TCD [P]
CON-10380	S4 - Wall A-2A&B - Pig 2A-F - FRP Footing	8 29-Oct-27	09-Nov-27	5609 - SWD, Hol
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Panels				
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Panels 2A-8				
CON-10440	S4 - Wall A-2A&B - Pnl 2A-8 - FRP Panels	4 10-Nov-27	16-Nov-27	5609 - SWD, Hol
CON-10500	S4 - Wall A-2A&B - Pnl 2A-8 - Cure	1 17-Nov-27	17-Nov-27	5609 - TCD [P]
CON-50981	S4 - Wall A-2A&B - Pnl 2A-8 - Strip Panels	2 18-Nov-27	19-Nov-27	5609 - SWD, Hol
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Panels 2A-9				
CON-10600	S4 - Wall A-2A&B - Pnl 2A-9 - FRP Panels	6 17-Nov-27	24-Nov-27	5609 - SWD, Hol
CON-10610	S4 - Wall A-2A&B - Pnl 2A-9 - Cure	1 25-Nov-27	25-Nov-27	5609 - TCD [P]
CON-50991	S4 - Wall A-2A&B - Pnl 2A-9 - Strip Panels	2 29-Nov-27	30-Nov-27	5609 - SWD, Hol
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Panels 2A-10				
CON-50981	S4 - Wall A-2A&B - Pnl 2A-10 - FRP Panels	4 29-Nov-27	02-Dec-27	5609 - SWD, Hol
CON-50991	S4 - Wall A-2A&B - Pnl 2A-10 - Cure	1 03-Dec-27	03-Dec-27	5609 - TCD [P]
CON-50971	S4 - Wall A-2A&B - Pnl 2A-10 - Strip Panels	2 05-Dec-27	07-Dec-27	5609 - SWD, Hol
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Finishes				
CON-61001	S4 - Wall A-2A&B - Final Water Cure	7 09-Dec-27	14-Dec-27	5609 - TCD [P]
CON-10570	S4 - Wall A-2A&B - Surface Finish Front Face / Install Arch Finishes	5 15-Dec-27	22-Dec-27	5609 - SWD, Hol
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 51+96 to Sta 54+75 | Wall A-3 Cut Section				
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 51+96 to Sta 54+75 | Wall A-3 Cut Section | Base				
CON-15150	S4 - Wall A-3 - Remove Temp Widening Pymnts	4 23-Jul-27	07-Jul-27	5609 - SWD, Hol
CON-15130	S4 - Wall A-3 - Excavate for First Level of Soil Nails	3 28-Jul-27	30-Jul-27	5609 - SWD, Hol
CON-15160	S4 - Wall A-3 - Install First Level Soil Nails & Grout	7 02-Aug-27	10-Aug-27	5609 - SWD, Hol
CON-15400	S4 - Wall A-3 - Cure First Level Soil Nails & Tension	5 11-Aug-27	15-Aug-27	5609 - TCD [P]
CON-15410	S4 - Wall A-3 - Install First Level Retain & Shotcrete	3 16-Aug-27	18-Aug-27	5609 - SWD, Hol
CON-46530	S4 - Wall A-3 - Excavate for Second Level of Soil Nails	3 19-Aug-27	23-Aug-27	5609 - SWD, Hol
CON-46540	S4 - Wall A-3 - Install Second Level Soil Nails & Grout	7 24-Aug-27	21-Sep-27	5609 - SWD, Hol
CON-46550	S4 - Wall A-3 - Cure Second Level Soil Nails & Tension	3 02-Sep-27	06-Sep-27	5609 - TCD [P]

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-48550	S4 - Wall A-3 - Install Second Level Rebar & Shotcrete	3	07-Sep-27	09-Sep-27	5609 - SWD, Hol	S4 - Wall A-3 - Install Second Level Rebar & Shotcrete
CON-48570	S4 - Wall A-3 - Excavate for Third Level of Soil Nails	2	10-Sep-27	12-Sep-27	5609 - SWD, Hol	S4 - Wall A-3 - Excavate for Third Level of Soil Nails
CON-48580	S4 - Wall A-3 - Install Third Level Soil Nails & Grout	3	14-Sep-27	16-Sep-27	5609 - SWD, Hol	S4 - Wall A-3 - Install Third Level Soil Nails & Grout
CON-48590	S4 - Wall A-3 - Cure Third Level Soil Nails & Tension	5	17-Sep-27	21-Sep-27	5609 - TCD [P]	S4 - Wall A-3 - Cure Third Level Soil Nails & Tension
CON-48600	S4 - Wall A-3 - Install Third Level Rebar & Shotcrete	2	22-Sep-27	23-Sep-27	5609 - SWD, Hol	S4 - Wall A-3 - Install Third Level Rebar & Shotcrete
CON-48610	S4 - Wall A-3 - Excavate for Fourth Level of Soil Nails	2	24-Sep-27	27-Sep-27	5609 - SWD, Hol	S4 - Wall A-3 - Excavate for Fourth Level of Soil Nails
CON-48620	S4 - Wall A-3 - Install Fourth Level Soil Nails & Grout	3	28-Sep-27	30-Sep-27	5609 - SWD, Hol	S4 - Wall A-3 - Install Fourth Level Soil Nails & Grout
CON-48630	S4 - Wall A-3 - Cure Fourth Level Soil Nails & Tension	6	01-Oct-27	06-Oct-27	5609 - TCD [P]	S4 - Wall A-3 - Cure Fourth Level Soil Nails & Tension
CON-48640	S4 - Wall A-3 - Install Fourth Level Rebar & Shotcrete	2	06-Oct-27	07-Oct-27	5609 - SWD, Hol	S4 - Wall A-3 - Install Fourth Level Rebar & Shotcrete
Const | St 4 | Sep Access | Seg A Ret Fill Sta 51+96 to Sta 54+75 | Wall A-3 Cut Section		3	09-Oct-27	12-Oct-27	5609 - SWD, Hol	Const | St 4 | Sep Access | Seg A Ret Fill Sta 51+96 to Sta 54+75 | Wall A-3 Cut Section
CON-15140	S4 - Wall A-3 - FRP Fascia Section 1 - DBL	3	09-Oct-27	12-Oct-27	5609 - SWD, Hol	S4 - Wall A-3 - FRP Fascia Section 1 - DBL
CON-15190	S4 - Wall A-3 - Cure Fascia Concrete Section 1	7	13-Oct-27	19-Oct-27	5609 - TCD [P]	S4 - Wall A-3 - Cure Fascia Concrete Section 1
CON-15170	S4 - Wall A-3 - Strip Fascia Panels Section 1 - DBL	1	14-Oct-27	14-Oct-27	5609 - SWD, Hol	S4 - Wall A-3 - Strip Fascia Panels Section 1 - DBL
CON-46650	S4 - Wall A-3 - FRP Fascia Section 2 - DBL	3	15-Oct-27	18-Oct-27	5609 - SWD, Hol	S4 - Wall A-3 - FRP Fascia Section 2 - DBL
CON-46680	S4 - Wall A-3 - Cure Fascia Concrete Section 2	7	20-Oct-27	26-Oct-27	5609 - TCD [P]	S4 - Wall A-3 - Cure Fascia Concrete Section 2
CON-46660	S4 - Wall A-3 - Strip Fascia Panels Section 2 - DBL	1	21-Oct-27	21-Oct-27	5609 - SWD, Hol	S4 - Wall A-3 - Strip Fascia Panels Section 2 - DBL
CON-46690	S4 - Wall A-3 - FRP Fascia Section 3 - DBL	3	22-Oct-27	25-Oct-27	5609 - SWD, Hol	S4 - Wall A-3 - FRP Fascia Section 3 - DBL
CON-46720	S4 - Wall A-3 - Cure Fascia Concrete Section 3	7	27-Oct-27	02-Nov-27	5609 - TCD [P]	S4 - Wall A-3 - Cure Fascia Concrete Section 3
CON-46700	S4 - Wall A-3 - Strip Fascia Panels Section 3 - DBL	1	29-Oct-27	29-Oct-27	5609 - SWD, Hol	S4 - Wall A-3 - Strip Fascia Panels Section 3 - DBL
CON-15420	S4 - Wall A-3 - Grade for Moment Slab	6	01-Nov-27	06-Nov-27	5609 - SWD, Hol	S4 - Wall A-3 - Grade for Moment Slab
CON-15200	S4 - Wall A-3 - Surface Finish / Apply Arch Finishes	5	03-Nov-27	09-Nov-27	5609 - SWD, Hol	S4 - Wall A-3 - Surface Finish / Apply Arch Finishes
CON-15430	S4 - Wall A-3 - FRP Moment Slab	5	08-Nov-27	13-Nov-27	5609 - SWD, Hol	S4 - Wall A-3 - FRP Moment Slab
CON-15210	S4 - Wall A-3 - FRP Casing & Traffic Barrier	3	17-Nov-27	19-Nov-27	5609 - SWD, Hol	S4 - Wall A-3 - FRP Casing & Traffic Barrier
Const | St 4 | Sep Access | Seg A At Grade Sta 54+75 to Sta 56+16		37	08-Oct-27	09-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	Const | St 4 | Sep Access | Seg A At Grade Sta 54+75 to Sta 56+16
CON-20510	S4 - Seg A - 54+75 to 56+16 - Remove Pavements & Hardscapes	1	08-Oct-27	08-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	S4 - Seg A - 54+75 to 56+16 - Remove Pavements & Hardscapes
CON-20550	S4 - Seg A - 54+75 to 56+16 - Perform Roadway Excavation	2	11-Oct-27	12-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	S4 - Seg A - 54+75 to 56+16 - Perform Roadway Excavation
CON-20570	S4 - Seg A - 54+75 to 56+16 - Install Storm Drainage & Appurtenances	2	13-Oct-27	14-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	S4 - Seg A - 54+75 to 56+16 - Install Storm Drainage & Appurtenances
CON-20720	S4 - Seg A - 54+75 to 56+16 - Prep Subgrade & Place Agg Base	2	15-Oct-27	16-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	S4 - Seg A - 54+75 to 56+16 - Prep Subgrade & Place Agg Base
CON-20690	S4 - Seg A - 54+75 to 56+16 - Place Pavement Base Course	4	17-Nov-27	17-Nov-27	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	S4 - Seg A - 54+75 to 56+16 - Place Pavement Base Course
CON-20640	S4 - Seg A - 54+75 to 56+16 - Place Barriers	6	18-Nov-27	05-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	S4 - Seg A - 54+75 to 56+16 - Place Barriers
CON-47611	S4 - Seg A - 54+75 to 56+16 - Place Pavement Wear Course	1	07-Dec-27	07-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	S4 - Seg A - 54+75 to 56+16 - Place Pavement Wear Course
CON-47621	S4 - Seg A - 54+75 to 56+16 - Place Pavement Medians & Signs	2	08-Dec-27	09-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	S4 - Seg A - 54+75 to 56+16 - Place Pavement Medians & Signs
Const | St 4 | Sep Access | Seg D		36	05-Jan-28	05-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	Const | St 4 | Sep Access | Seg D
Const | St 4 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06		36	05-Jan-28	05-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	Const | St 4 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06
Const | St 4 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4		36	05-Jan-28	05-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	Const | St 4 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4
Const | St 4 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4 | Abut D2-A13		36	05-Jan-28	05-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	Const | St 4 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4 | Abut D2-A13
CON-32510	S4 - D2-F4 - D2-A13 - Install CIDH Shafts	7	05-Nov-27	16-Nov-27	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Install CIDH Shafts
CON-32590	S4 - D2-F4 - D2-A13 - Excavate Footing	4	17-Nov-27	22-Nov-27	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Excavate Footing
CON-32570	S4 - D2-F4 - D2-A13 - Cure CIDH	7	17-Nov-27	23-Nov-27	5609 - TCD [P]	S4 - D2-F4 - D2-A13 - Cure CIDH
CON-32620	S4 - D2-F4 - D2-A13 - Prep CIDH For Footing Construction	3	23-Nov-27	29-Nov-27	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Prep CIDH For Footing Construction
CON-32710	S4 - D2-F4 - D2-A13 - Form Footing/Dowel Template	3	30-Nov-27	02-Dec-27	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Form Footing/Dowel Template
CON-32760	S4 - D2-F4 - D2-A13 - Place Rebar	3	05-Dec-27	08-Dec-27	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Place Rebar
CON-32890	S4 - D2-F4 - D2-A13 - Place Footing Concrete	1	09-Dec-27	09-Dec-27	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Place Footing Concrete
CON-32930	S4 - D2-F4 - D2-A13 - Cure Footing Concrete	7	10-Dec-27	16-Dec-27	5609 - TCD [P]	S4 - D2-F4 - D2-A13 - Cure Footing Concrete
CON-32940	S4 - D2-F4 - D2-A13 - Strip Footing Forms/Dowel Template	1	13-Dec-27	13-Dec-27	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Strip Footing Forms/Dowel Template
CON-32980	S4 - D2-F4 - D2-A13 - Blast Prep For Stems & Wings	1	14-Dec-27	14-Dec-27	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Blast Prep For Stems & Wings
CON-33040	S4 - D2-F4 - D2-A13 - Form 15 Stems/Wings/Backwall	3	15-Dec-27	20-Dec-27	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Form 15 Stems/Wings/Backwall
CON-33120	S4 - D2-F4 - D2-A13 - Place Stem & Wing Rebar	3	21-Dec-27	23-Dec-27	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Place Stem & Wing Rebar
CON-33200	S4 - D2-F4 - D2-A13 - Form 25 Stems & Wings	2	27-Dec-27	28-Dec-27	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Form 25 Stems & Wings
CON-33320	S4 - D2-F4 - D2-A13 - Place Stem & Wing Concrete	1	28-Dec-27	29-Dec-27	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Place Stem & Wing Concrete
CON-33380	S4 - D2-F4 - D2-A13 - Cure Stem & Wing Concrete	7	30-Dec-27	05-Jan-28	5609 - TCD [P]	S4 - D2-F4 - D2-A13 - Cure Stem & Wing Concrete
CON-33390	S4 - D2-F4 - D2-A13 - Strip Stem & Wing Forms / Rough Surface Finish	2	06-Jan-28	08-Jan-28	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Strip Stem & Wing Forms / Rough Surface Finish
CON-33400	S4 - D2-F4 - D2-A13 - Backfill	1	09-Jan-28	09-Jan-28	5609 - SWD, Hol	S4 - D2-F4 - D2-A13 - Backfill
Const | St 4 | Cen Access		29	23-Aug-28	23-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	Const | St 4 | Cen Access
Const | St 4 | Cen Access | MOT		318	05-Feb-28	01-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	Const | St 4 | Cen Access | MOT
CON-47321	S4 - Establish MOT Measures Century for Abut J-M	2	05-Nov-26	06-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	S4 - Establish MOT Measures Century for Abut J-M
CON-35360	S4 - Establish MOT Measures Sepulveda Median FW Bents	2	11-Feb-27	12-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Ovr	S4 - Establish MOT Measures Sepulveda Median FW Bents

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Start	Finish	Calendar	
CON-48471	S4 - Open Sag I In Stage 4 Condition	2 01-Feb-28	02-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S4 - Open Sag I In Stage 4 Condition
CON-48481	S4 - Open Sag I Core w/ Seg U (access to admin east dw)	2 20-Mar-28	21-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S4 - Open Sag I Core w/ Seg U (access to admin east dw)
Const | St 4 | Cen Access | Demolition		3 07-Nov-25	25-Feb-28		25-Feb-28, Const | St 4 | Cen Access | Demolition
CON-35370	S4 - Demo Existing Med Barrier Sepulveda @ Brogno I, K, & P	3 18-Feb-27	19-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S4 - Demo Existing Med Barrier Sepulveda @ Brogno I, K, & P
Const | St 4 | Cen Access | Demolition | WB Century Over Sep		317 07-Nov-25	25-Feb-28		25-Feb-28, Const | St 4 | Cen Access | Demolition | WB Century Over Sep
CON-48461	S4 - Demo Outer Girdler on Existing WB Century Bridge	2 07-Nov-26	08-Nov-26	5609 - Weekends, TDay, Xmas, WC, Cy	S4 - Demo Outer Girdler on Existing WB Century Bridge
CON-51431	S4 - Demo Ex WB Century Over Sep - Demo Abut Curtain Walls	1 09-Nov-26	13-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S4 - Demo Ex WB Century Over Sep - Demo Abut Curtain Walls
CON-32290	S4 - Demo Ex WB Century Over Sep - Remove Light Fixtures & Metal Rail	2 03-Feb-28	04-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S4 - Demo Ex WB Century Over Sep - Remove Light Fixtures & Metal Rail
CON-51441	S4 - Demo Ex WB Century Over Sep - Demo Partial Abut for Bridge 1 Const	4 03-Feb-28	08-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S4 - Demo Ex WB Century Over Sep - Demo Partial Abut for Bridge 1 Const
CON-51381	S4 - Demo Ex WB Century Over Sep - Demo SB Span over Sep	2 05-Feb-28	08-Feb-28	5609 - Weekends, TDay, Xmas, WC, Cy	S4 - Demo Ex WB Century Over Sep - Demo SB Span over Sep
CON-51391	S4 - Demo Ex WB Century Over Sep - Demo West Abut & Pier Wall	4 07-Feb-28	10-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S4 - Demo Ex WB Century Over Sep - Demo West Abut & Pier Wall
CON-51401	S4 - Demo Ex WB Century Over Sep - Demo NB Span over Sep	2 12-Feb-28	13-Feb-28	5609 - Weekends, TDay, Xmas, WC, Cy	S4 - Demo Ex WB Century Over Sep - Demo NB Span over Sep
CON-51411	S4 - Demo Ex WB Century Over Sep - Demo East Abut & Pier Wall	4 14-Feb-28	17-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S4 - Demo Ex WB Century Over Sep - Demo East Abut & Pier Wall
CON-51421	S4 - Demo Ex WB Century Over Sep - Demo Median Piers	5 18-Feb-28	25-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S4 - Demo Ex WB Century Over Sep - Demo Median Piers
Const | St 4 | Cen Access | Demolition | Hook Ramp		18 05-Jul-27	01-Aug-27		01-Aug-27, Const | St 4 | Cen Access | Demolition | Hook Ramp
CON-35350	S4 - Demo Ex Hook Ramp Bridge - Remove Light Fixtures & Metal Rail	4 05-Jul-27	14-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy	S4 - Demo Ex Hook Ramp Bridge - Remove Light Fixtures & Metal Rail
CON-51561	S4 - Demo Ex Hook Ramp Bridge - Demo Span & Abut @ WML A-3	6 15-Jul-27	22-Jul-27	5609 - SWD, Hol	S4 - Demo Ex Hook Ramp Bridge - Demo Span & Abut @ WML A-3
CON-51571	S4 - Demo Ex Hook Ramp Bridge - Demo Span over EB Century	2 24-Jul-27	25-Jul-27	5609 - Weekends, TDay, Xmas, WC, Cy	S4 - Demo Ex Hook Ramp Bridge - Demo Span over EB Century
CON-51581	S4 - Demo Ex Hook Ramp Bridge - Demo Remaining Spans So of Century	2 31-Jul-27	01-Aug-27	5609 - Weekends, TDay, Xmas, WC, Cy	S4 - Demo Ex Hook Ramp Bridge - Demo Remaining Spans So of Century
Const | St 4 | Cen Access | LAVA Box Culvert South of Century		119 26-May-27	12-Nov-27	5609 - SWD, Hol	12-Nov-27, Const | St 4 | Cen Access | LAVA Box Culvert South of Century
Const | St 4 | Cen Access | LAVA Box Culvert So of Century - Line B RCP - East Tie In to Box Culv		13 25-Aug-27	13-Sep-27	5609 - SWD, Hol	13-Sep-27, Const | St 4 | Cen Access | LAVA Box Culvert So of Century - Line B RCP - East Tie In to Box Culv
UTIL-11920	Util Rele - LAVA Box Culvert - Line B - Exc & Shore for East Tie In	3 25-Aug-27	27-Aug-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Exc & Shore for East Tie In
UTIL-11930	Util Rele - LAVA Box Culvert - Line B - Sawcut & Remove Existing Box East	1 30-Aug-27	30-Aug-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Sawcut & Remove Existing Box East
UTIL-11940	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF Remaining B Sta 1+50 to Sta 2+80 RCP @ East	2 31-Aug-27	01-Sep-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF Remaining B Sta 1+50 to Sta 2+80 RCP @ East
UTIL-11950	Util Rele - LAVA Box Culvert - Line B - FRP Transition Structure @ East Tie In	4 02-Sep-27	08-Sep-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - FRP Transition Structure @ East Tie In
UTIL-11960	Util Rele - LAVA Box Culvert - Line B - Backfill & Remove SOE @ East Tie In	3 08-Sep-27	13-Sep-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Backfill & Remove SOE @ East Tie In
Const | St 4 | Cen Access | LAVA Box Culvert South of Century - Line B RCP - Off Line		93 26-May-27	24-Aug-27	5609 - SWD, Hol	24-Aug-27, Const | St 4 | Cen Access | LAVA Box Culvert South of Century - Line B RCP - Off Line
UTIL-12050	Util Rele - LAVA Box Culvert - Line B - Install SOE B Sta 1+50 to Sta 2+80	5 26-May-27	22-Jun-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Install SOE B Sta 1+50 to Sta 2+80
UTIL-11810	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF 54" RCP B Sta 1+50 to Sta 2+80 - Section 1	5 13-Jun-27	29-Jun-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF 54" RCP B Sta 1+50 to Sta 2+80 - Section 1
UTIL-12060	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF 54" RCP B Sta 1+50 to Sta 2+80 - Section 2	6 10-Jun-27	16-Jun-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF 54" RCP B Sta 1+50 to Sta 2+80 - Section 2
UTIL-12070	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF 54" RCP B Sta 1+50 to Sta 2+80 - Section 3	5 17-Jun-27	23-Jun-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF 54" RCP B Sta 1+50 to Sta 2+80 - Section 3
UTIL-11980	Util Rele - LAVA Box Culvert - Line B - FRP Manhole @ Sta 2+80 Transition	8 24-Jun-27	30-Jun-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - FRP Manhole @ Sta 2+80 Transition
UTIL-11990	Util Rele - LAVA Box Culvert - Line B - Remove SOE Pipe B Sta 1+50 to Sta 2+80	10 01-Jul-27	15-Jul-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Remove SOE Pipe B Sta 1+50 to Sta 2+80
UTIL-12090	Util Rele - LAVA Box Culvert - Line B - Install SOE B Sta 2+80 to Sta 3+50	3 16-Jul-27	20-Jul-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Install SOE B Sta 2+80 to Sta 3+50
UTIL-11870	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF 42" RCP B Sta 2+80 to Sta 3+50	10 21-Jul-27	03-Aug-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF 42" RCP B Sta 2+80 to Sta 3+50
UTIL-11880	Util Rele - LAVA Box Culvert - Line B - Remove SOE & Backfill Pipe B Sta 2+80 to Sta 3+50	3 01-Aug-27	06-Aug-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Remove SOE & Backfill Pipe B Sta 2+80 to Sta 3+50
UTIL-12090	Util Rele - LAVA Box Culvert - Line B - Install SOE Line B	2 09-Aug-27	10-Aug-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Install SOE Line B
UTIL-11990	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF RCP Line B	3 11-Aug-27	13-Aug-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF RCP Line B
UTIL-11900	Util Rele - LAVA Box Culvert - Line B - FRP Manhole @ Line B Tie In to Existing	5 16-Aug-27	20-Aug-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - FRP Manhole @ Line B Tie In to Existing
UTIL-11910	Util Rele - LAVA Box Culvert - Line B - Remove SOE Pipe Line B	2 23-Aug-27	24-Aug-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Remove SOE Pipe Line B
Const | St 4 | Cen Access | LAVA Box Culvert So of Century - Line B RCP - West Tie In to RCP		27 28-Sep-27	03-Nov-27	5609 - SWD, Hol	03-Nov-27, Const | St 4 | Cen Access | LAVA Box Culvert So of Century - Line B RCP - West Tie In to RCP
UTIL-11990	Util Rele - LAVA Box Culvert - Line B - Exc & Shore for West Tie In	5 28-Sep-27	04-Oct-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Exc & Shore for West Tie In
UTIL-12000	Util Rele - LAVA Box Culvert - Line B - Sawcut & Remove Existing Box West	2 05-Oct-27	06-Oct-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Sawcut & Remove Existing Box West
UTIL-12010	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF Remaining B Sta 2+80 to Sta 3+50 RCP @ West	5 07-Oct-27	13-Oct-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF Remaining B Sta 2+80 to Sta 3+50 RCP @ West
UTIL-12020	Util Rele - LAVA Box Culvert - Line B - FRP Manhole @ West Tie In	5 14-Oct-27	20-Oct-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - FRP Manhole @ West Tie In
UTIL-12100	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF Remaining B Sta 2+80 to Sta 3+50 RCP @ West	8 14-Oct-27	20-Oct-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF Remaining B Sta 2+80 to Sta 3+50 RCP @ West
UTIL-12110	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF Remaining B Sta 2+80 to Sta 3+50 RCP @ West	8 21-Oct-27	27-Oct-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Exc/Lay/BF Remaining B Sta 2+80 to Sta 3+50 RCP @ West
UTIL-12030	Util Rele - LAVA Box Culvert - Line B - Remove SOE @ West Tie In	3 23-Oct-27	03-Nov-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Remove SOE @ West Tie In
Const | St 4 | Cen Access | LAVA Box Culvert So of Century - Line B RCP - Ex Box Culvert Removal		61 04-Nov-27	12-Nov-27	5609 - SWD, Hol	12-Nov-27, Const | St 4 | Cen Access | LAVA Box Culvert So of Century - Line B RCP - Ex Box Culvert Removal
UTIL-11970	Util Rele - LAVA Box Culvert - Line B - Remove Ex RCP @ D2-A13	1 04-Nov-27	04-Nov-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Remove Ex RCP @ D2-A13
UTIL-12040	Util Rele - LAVA Box Culvert - Line B - Remove Ex RCP @ K Vials	2 05-Nov-27	09-Nov-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Remove Ex RCP @ K Vials
UTIL-11940	Util Rele - LAVA Box Culvert - Line B - Remove Ex RCP @ D2-B12	1 09-Nov-27	09-Nov-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Remove Ex RCP @ D2-B12
UTIL-12120	Util Rele - LAVA Box Culvert - Line B - Remove Remaining Ex RCP	2 10-Nov-27	12-Nov-27	5609 - SWD, Hol	Util Rele - LAVA Box Culvert - Line B - Remove Remaining Ex RCP
Const | St 4 | Cen Access | Seg I		515 20-Feb-26	17-Mar-28		17-Mar-28, Const | St 4 | Cen Access | Seg I
Const | St 4 | Cen Access | Seg I | Finishes		81 17-Mar-28	17-Mar-28		17-Mar-28, Const | St 4 | Cen Access | Seg I | Finishes
CON-51281	S4 - Install ITS Gantry	2 16-Nov-27	17-Nov-27	5609 - SWD, Hol	S4 - Install ITS Gantry

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-51261	S4 - I East of Sep - Place AC Wearing Course	1	24-Jan-28	24-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I East of Sep - Place AC Wearing Course
CON-51271	S4 - I - install Street Lighting	5	24-Jan-28	28-Jan-28	5609 - SWD, Hol	S4 - I - install Street Lighting
CON-31360	S4 - I - Construct Final Roadway Finishes	5	25-Jan-28	31-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I - Construct Final Roadway Finishes
CON-32650	S4 - I West of Sep - Place AC Wearing Course	1	03-Mar-28	03-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I West of Sep - Place AC Wearing Course
CON-51231	S4 - I Gore @ Seg U - Construct Final Roadway Finishes	10	08-Mar-28	17-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I Gore @ Seg U - Construct Final Roadway Finishes
Const | St 4 | Can Access | Seg I | At Grade Sta 17+00 to Sta 17+50						
CON-31740	S4 - I 10+00 to 17+50 - Remove Pavements & Hardscapes	2	28-Sep-27	29-Sep-27	5609 - SWD, Hol	S4 - I 10+00 to 17+50 - Remove Pavements & Hardscapes
CON-31690	S4 - I 10+00 to 17+50 - Perform Roadway Excavation	2	30-Sep-27	01-Oct-27	5609 - SWD, Hol	S4 - I 10+00 to 17+50 - Perform Roadway Excavation
CON-31730	S4 - I 10+00 to 17+50 - Install Storm Drainage & Appurtenances	10	04-Oct-27	15-Oct-27	5609 - SWD, Hol	S4 - I 10+00 to 17+50 - Install Storm Drainage & Appurtenances
CON-32790	S4 - I 10+00 to 17+50 - Install Street Lighting & ITS Findings	5	04-Oct-27	08-Oct-27	5609 - SWD, Hol	S4 - I 10+00 to 17+50 - Install Street Lighting & ITS Findings
CON-31700	S4 - I 10+00 to 17+50 - Grade for Flatwork & Batters	2	19-Oct-27	19-Oct-27	5609 - SWD, Hol	S4 - I 10+00 to 17+50 - Grade for Flatwork & Batters
CON-31710	S4 - I 10+00 to 17+50 - Place Flatwork & Batters	4	20-Oct-27	25-Oct-27	5609 - SWD, Hol	S4 - I 10+00 to 17+50 - Place Flatwork & Batters
CON-31720	S4 - I 10+00 to 17+50 - Prep Subgrade & Place Agg Base	9	28-Oct-27	05-Nov-27	5609 - SWD, Hol	S4 - I 10+00 to 17+50 - Prep Subgrade & Place Agg Base
CON-32630	S4 - I 10+00 to 17+50 - Place AC Base Course	1	08-Nov-27	08-Nov-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I 10+00 to 17+50 - Place AC Base Course
CON-32640	S4 - I 10+00 to 17+50 - FRP Traffic Barrier	4	09-Nov-27	15-Nov-27	5609 - SWD, Hol	S4 - I 10+00 to 17+50 - FRP Traffic Barrier
Const | St 4 | Can Access | Seg I | At Grade Sta 17+50 to Sta 21+44						
CON-31311	S4 - I 17+50 to 21+44 - Fine Grade Subgrade	6	01-Nov-27	05-Nov-27	5609 - SWD, Hol	S4 - I 17+50 to 21+44 - Fine Grade Subgrade
CON-31340	S4 - I 17+50 to 21+44 - Prep Subgrade & Place Agg Base	12	08-Nov-27	24-Nov-27	5609 - SWD, Hol	S4 - I 17+50 to 21+44 - Prep Subgrade & Place Agg Base
CON-53301	S4 - I 17+50 to 21+44 - Backfill & Place Agg Base @ Wall K-2	4	11-Jan-28	14-Jan-28	5609 - SWD, Hol	S4 - I 17+50 to 21+44 - Backfill & Place Agg Base @ Wall K-2
CON-31350	S4 - I 17+50 to 21+44 - Place AC Base Course	1	17-Jan-28	17-Jan-28	5609 - SWD, Hol	S4 - I 17+50 to 21+44 - Place AC Base Course
CON-31330	S4 - I 17+50 to 21+44 - FRP Traffic Barrier	4	18-Jan-28	21-Jan-28	5609 - SWD, Hol	S4 - I 17+50 to 21+44 - FRP Traffic Barrier
Const | St 4 | Can Access | Seg I | Bridge Sta 21+44 to Sta 24+32						
Const | St 4 | Can Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub						
Const | St 4 | Can Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | A1						
CON-29550	S4 - I - A1 - Prep Work Pad For CIDH	1	20-Nov-26	20-Nov-26	5609 - SWD, Hol	S4 - I - A1 - Prep Work Pad For CIDH
CON-29560	S4 - I - A1 - Install CIDH Shaft(s)	7	10-Dec-26	22-Dec-26	5609 - SWD, Hol	S4 - I - A1 - Install CIDH Shaft(s)
CON-29400	S4 - I - A1 - Excavate Footing	4	23-Dec-26	30-Dec-26	5609 - SWD, Hol	S4 - I - A1 - Excavate Footing
CON-29540	S4 - I - A1 - Cure CIDH	7	23-Dec-26	29-Dec-26	5609 - TCD PJ	S4 - I - A1 - Cure CIDH
CON-29530	S4 - I - A1 - Prep CIDH For Footing Construction	3	04-Jan-27	05-Jan-27	5609 - SWD, Hol	S4 - I - A1 - Prep CIDH For Footing Construction
CON-29410	S4 - I - A1 - Form Footing/Dowel Template	3	07-Jan-27	11-Jan-27	5609 - SWD, Hol	S4 - I - A1 - Form Footing/Dowel Template
CON-29420	S4 - I - A1 - Place Rebar	3	12-Jan-27	14-Jan-27	5609 - SWD, Hol	S4 - I - A1 - Place Rebar
CON-29430	S4 - I - A1 - Place Footing Concrete	1	15-Jan-27	15-Jan-27	5609 - SWD, Hol	S4 - I - A1 - Place Footing Concrete
CON-29440	S4 - I - A1 - Cure Footing Concrete	7	18-Jan-27	22-Jan-27	5609 - TCD PJ	S4 - I - A1 - Cure Footing Concrete
CON-29450	S4 - I - A1 - Strip Footing Forms/Dowel Template	1	18-Jan-27	18-Jan-27	5609 - SWD, Hol	S4 - I - A1 - Strip Footing Forms/Dowel Template
CON-29460	S4 - I - A1 - Blast/Prep For Stems & Wings	1	19-Jan-27	19-Jan-27	5609 - SWD, Hol	S4 - I - A1 - Blast/Prep For Stems & Wings
CON-29470	S4 - I - A1 - Form 1S Stems/Wings/Backwall	3	20-Jan-27	22-Jan-27	5609 - SWD, Hol	S4 - I - A1 - Form 1S Stems/Wings/Backwall
CON-29480	S4 - I - A1 - Place Stem & Wing Rebar	3	25-Jan-27	27-Jan-27	5609 - SWD, Hol	S4 - I - A1 - Place Stem & Wing Rebar
CON-29490	S4 - I - A1 - Form 2S Stems & Wings	3	28-Jan-27	29-Jan-27	5609 - SWD, Hol	S4 - I - A1 - Form 2S Stems & Wings
CON-29500	S4 - I - A1 - Place Stem & Wing Concrete	1	01-Feb-27	01-Feb-27	5609 - SWD, Hol	S4 - I - A1 - Place Stem & Wing Concrete
CON-29510	S4 - I - A1 - Cure Stem & Wing Concrete	7	02-Feb-27	08-Feb-27	5609 - TCD PJ	S4 - I - A1 - Cure Stem & Wing Concrete
CON-29520	S4 - I - A1 - Strip Stem & Wing Forms / Rough Surface Finish	2	09-Feb-27	10-Feb-27	5609 - SWD, Hol	S4 - I - A1 - Strip Stem & Wing Forms / Rough Surface Finish
CON-29970	S4 - I - A1 - Backfill	1	11-Feb-27	11-Feb-27	5609 - SWD, Hol	S4 - I - A1 - Backfill
Const | St 4 | Can Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B2						
Const | St 4 | Can Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B2L						
CON-29570	S4 - I - B2L - Prep Work Pad For Type 2 Shaft	1	23-Feb-28	23-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I - B2L - Prep Work Pad For Type 2 Shaft
CON-29580	S4 - I - B2L - Install CIDH Shaft(s)	4	18-May-28	21-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I - B2L - Install CIDH Shaft(s)
CON-29590	S4 - I - B2L - Cure Shaft	7	22-May-28	28-May-28	5609 - TCD PJ	S4 - I - B2L - Cure Shaft
CON-29600	S4 - I - B2L - Prep Transition Zone/Set Column Cage & Guy	4	22-May-28	28-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I - B2L - Prep Transition Zone/Set Column Cage & Guy
CON-29610	S4 - I - B2L - Place Transition Zone Concrete	1	29-May-28	29-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I - B2L - Place Transition Zone Concrete
CON-29620	S4 - I - B2L - Cure Transition Zone Concrete	7	30-May-28	05-Jun-28	5609 - TCD PJ	S4 - I - B2L - Cure Transition Zone Concrete
CON-29630	S4 - I - B2L - Form Column	3	01-Jun-28	03-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I - B2L - Form Column
CON-29670	S4 - I - B2L - Connect Thermal Control System	1	04-Jun-28	04-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I - B2L - Connect Thermal Control System
CON-29640	S4 - I - B2L - Place Column Concrete	1	13-Jun-28	13-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I - B2L - Place Column Concrete
CON-29650	S4 - I - B2L - Cure Column Concrete	7	14-Jun-28	20-Jun-28	5609 - TCD PJ	S4 - I - B2L - Cure Column Concrete
CON-29660	S4 - I - B2L - Strip Column Forms 1 Day Minimum Removal	1	21-Jul-28	21-Jul-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I - B2L - Strip Column Forms 1 Day Minimum Removal
Const | St 4 | Can Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B2R						
CON-30080	S4 - I - B2R - Prep Work Pad For Type 2 Shaft	1	20-Feb-28	20-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S4 - I - B2R - Prep Work Pad For Type 2 Shaft

Actual Work Critical Remaining Work Summary
 Remaining Work Milestones

Activity ID	Activity Name	Planning	Start	Finish	Calendar	Activity Name	Planning	Start	Finish	Calendar
CON-30090	S4 - I - I82R - Install CIDH Shaft(s)		4/12-May-26	15-May-26	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I82R - Install CIDH Shaft(s)		4/12-May-26	15-May-26	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-30100	S4 - I - I82R - Cure Shell		7/16-May-26	22-May-26	5609 - 7CD [P]	S4 - I - I82R - Cure Shell		7/16-May-26	22-May-26	5609 - 7CD [P]
CON-30110	S4 - I - I82R - Prep Transition Zone/Set Column Cage & Guy		4/18-May-26	21-May-26	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I82R - Prep Transition Zone/Set Column Cage & Guy		4/18-May-26	21-May-26	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-30120	S4 - I - I82R - Place Transition Zone Concrete		1/26-May-26	26-May-26	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I82R - Place Transition Zone Concrete		1/26-May-26	26-May-26	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-30130	S4 - I - I82R - Cure Transition Zone Concrete		7/27-May-26	02-Jun-26	5609 - 7CD [P]	S4 - I - I82R - Cure Transition Zone Concrete		7/27-May-26	02-Jun-26	5609 - 7CD [P]
CON-30140	S4 - I - I82R - Form Column		3/27-May-26	29-May-26	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I82R - Form Column		3/27-May-26	29-May-26	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-30160	S4 - I - I82R - Connect Thermal Control System		1/01-Jun-26	01-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I82R - Connect Thermal Control System		1/01-Jun-26	01-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-30150	S4 - I - I82R - Place Column Concrete		1/03-Jun-26	03-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I82R - Place Column Concrete		1/03-Jun-26	03-Jun-26	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-30160	S4 - I - I82R - Cure Column Concrete		7/04-Jun-26	10-Jun-26	5609 - 7CD [P]	S4 - I - I82R - Cure Column Concrete		7/04-Jun-26	10-Jun-26	5609 - 7CD [P]
CON-30170	S4 - I - I82R - Strip Column Forms 1 Day Minimum Removal		1/13-Jul-26	13-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I82R - Strip Column Forms 1 Day Minimum Removal		1/13-Jul-26	13-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, City
Const | St 4 | Con Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B3			33/15-Dec-26	04-Feb-27		Const | St 4 | Con Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B3		33/15-Dec-26	04-Feb-27	
CON-29680	S4 - I - I83L - Prep Work Pad For Type 2 Shaft		1/15-Dec-26	15-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83L - Prep Work Pad For Type 2 Shaft		1/15-Dec-26	15-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29690	S4 - I - I83L - Install CIDH Shaft(s)		4/16-Dec-26	05-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83L - Install CIDH Shaft(s)		4/16-Dec-26	05-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29700	S4 - I - I83L - Cure Shell		7/06-Jan-27	12-Jan-27	5609 - 7CD [P]	S4 - I - I83L - Cure Shell		7/06-Jan-27	12-Jan-27	5609 - 7CD [P]
CON-29710	S4 - I - I83L - Prep Transition Zone/Set Column Cage & Guy		4/06-Jan-27	11-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83L - Prep Transition Zone/Set Column Cage & Guy		4/06-Jan-27	11-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29720	S4 - I - I83L - Place Transition Zone Concrete		1/13-Jan-27	13-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83L - Place Transition Zone Concrete		1/13-Jan-27	13-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29730	S4 - I - I83L - Cure Transition Zone Concrete		7/14-Jan-27	20-Jan-27	5609 - 7CD [P]	S4 - I - I83L - Cure Transition Zone Concrete		7/14-Jan-27	20-Jan-27	5609 - 7CD [P]
CON-29740	S4 - I - I83L - Form Column		3/14-Jan-27	18-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83L - Form Column		3/14-Jan-27	18-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29750	S4 - I - I83L - Connect Thermal Control System		1/19-Jan-27	19-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83L - Connect Thermal Control System		1/19-Jan-27	19-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29760	S4 - I - I83L - Place Column Concrete		1/21-Jan-27	21-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83L - Place Column Concrete		1/21-Jan-27	21-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29760	S4 - I - I83L - Cure Column Concrete		7/22-Jan-27	28-Jan-27	5609 - 7CD [P]	S4 - I - I83L - Cure Column Concrete		7/22-Jan-27	28-Jan-27	5609 - 7CD [P]
CON-29770	S4 - I - I83L - Strip Column Forms 1 Day Minimum Removal		1/29-Jan-27	29-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83L - Strip Column Forms 1 Day Minimum Removal		1/29-Jan-27	29-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
Const | St 4 | Con Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B3R			32/16-Dec-26	04-Feb-27		Const | St 4 | Con Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B3R		32/16-Dec-26	04-Feb-27	
CON-30190	S4 - I - I83R - Prep Work Pad For Type 2 Shaft		1/16-Dec-26	16-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83R - Prep Work Pad For Type 2 Shaft		1/16-Dec-26	16-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-30200	S4 - I - I83R - Install CIDH Shaft(s)		4/05-Jan-27	11-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83R - Install CIDH Shaft(s)		4/05-Jan-27	11-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-30210	S4 - I - I83R - Cure Shell		7/12-Jan-27	18-Jan-27	5609 - 7CD [P]	S4 - I - I83R - Cure Shell		7/12-Jan-27	18-Jan-27	5609 - 7CD [P]
CON-30220	S4 - I - I83R - Prep Transition Zone/Set Column Cage & Guy		4/12-Jan-27	15-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83R - Prep Transition Zone/Set Column Cage & Guy		4/12-Jan-27	15-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-30230	S4 - I - I83R - Place Transition Zone Concrete		1/19-Jan-27	19-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83R - Place Transition Zone Concrete		1/19-Jan-27	19-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-30240	S4 - I - I83R - Cure Transition Zone Concrete		7/20-Jan-27	26-Jan-27	5609 - 7CD [P]	S4 - I - I83R - Cure Transition Zone Concrete		7/20-Jan-27	26-Jan-27	5609 - 7CD [P]
CON-30250	S4 - I - I83R - Form Column		3/20-Jan-27	22-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83R - Form Column		3/20-Jan-27	22-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-30260	S4 - I - I83R - Connect Thermal Control System		1/25-Jan-27	25-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83R - Connect Thermal Control System		1/25-Jan-27	25-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-30260	S4 - I - I83R - Place Column Concrete		1/27-Jan-27	27-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83R - Place Column Concrete		1/27-Jan-27	27-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-30270	S4 - I - I83R - Cure Column Concrete		7/28-Jan-27	03-Feb-27	5609 - 7CD [P]	S4 - I - I83R - Cure Column Concrete		7/28-Jan-27	03-Feb-27	5609 - 7CD [P]
CON-30280	S4 - I - I83R - Strip Column Forms 1 Day Minimum Removal		1/04-Feb-27	04-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I83R - Strip Column Forms 1 Day Minimum Removal		1/04-Feb-27	04-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, City
Const | St 4 | Con Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | A4			35/19-Nov-26	05-Feb-27		Const | St 4 | Con Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | A4		35/19-Nov-26	05-Feb-27	
CON-29940	S4 - I - I4A - Prep Work Pad For CIDH		1/19-Nov-26	19-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Prep Work Pad For CIDH		1/19-Nov-26	19-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29950	S4 - I - I4A - Install CIDH Shaft(s)		7/30-Nov-26	09-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Install CIDH Shaft(s)		7/30-Nov-26	09-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29790	S4 - I - I4A - Excavate Footing		4/10-Dec-26	16-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Excavate Footing		4/10-Dec-26	16-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29930	S4 - I - I4A - Cure CIDH		7/19-Dec-26	16-Dec-26	5609 - 7CD [P]	S4 - I - I4A - Cure CIDH		7/19-Dec-26	16-Dec-26	5609 - 7CD [P]
CON-29920	S4 - I - I4A - Prep CIDH For Footing Construction		3/17-Dec-26	05-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Prep CIDH For Footing Construction		3/17-Dec-26	05-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29930	S4 - I - I4A - Form Footing/Dowel Template		3/06-Jan-27	08-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Form Footing/Dowel Template		3/06-Jan-27	08-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29810	S4 - I - I4A - Place Rebar		3/11-Jan-27	13-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Place Rebar		3/11-Jan-27	13-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29820	S4 - I - I4A - Place Footing Concrete		7/14-Jan-27	14-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Place Footing Concrete		7/14-Jan-27	14-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29830	S4 - I - I4A - Cure Footing Concrete		7/15-Jan-27	21-Jan-27	5609 - 7CD [P]	S4 - I - I4A - Cure Footing Concrete		7/15-Jan-27	21-Jan-27	5609 - 7CD [P]
CON-29840	S4 - I - I4A - Strip Footing Forms/Dowel Template		1/15-Jan-27	16-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Strip Footing Forms/Dowel Template		1/15-Jan-27	16-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29850	S4 - I - I4A - Blast Prep For Stems & Wings		1/18-Jan-27	18-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Blast Prep For Stems & Wings		1/18-Jan-27	18-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29860	S4 - I - I4A - Form 15 Stems/Wings/Bacowall		3/19-Jan-27	21-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Form 15 Stems/Wings/Bacowall		3/19-Jan-27	21-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29870	S4 - I - I4A - Place Stem & Wing Rebar		3/22-Jan-27	25-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Place Stem & Wing Rebar		3/22-Jan-27	25-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29880	S4 - I - I4A - Form 25 Stems & Wings		2/27-Jan-27	28-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Form 25 Stems & Wings		2/27-Jan-27	28-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29890	S4 - I - I4A - Place Stem & Wing Concrete		1/29-Jan-27	29-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Place Stem & Wing Concrete		1/29-Jan-27	29-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29900	S4 - I - I4A - Cure Stem & Wing Concrete		7/30-Jan-27	05-Feb-27	5609 - 7CD [P]	S4 - I - I4A - Cure Stem & Wing Concrete		7/30-Jan-27	05-Feb-27	5609 - 7CD [P]
CON-29910	S4 - I - I4A - Strip Stem & Wing Forms / Rough Surface Finish		2/01-Feb-27	02-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Strip Stem & Wing Forms / Rough Surface Finish		2/01-Feb-27	02-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-29880	S4 - I - I4A - Backfill		1/08-Feb-27	08-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - I4A - Backfill		1/08-Feb-27	08-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, City
Const | St 4 | Con Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Sup			33/17-Feb-27	17-Aug-27		Const | St 4 | Con Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Sup		33/17-Feb-27	17-Aug-27	
Const | St 4 | Con Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Sup - FW			33/17-Feb-27	17-Aug-27		Const | St 4 | Con Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Sup - FW		33/17-Feb-27	17-Aug-27	
CON-40710	S4 - I - FW - Install Grillage/Bent Cap/Post/Strings Span 1		2/11-Feb-27	12-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, City	S4 - I - FW - Install Grillage/Bent Cap/Post/Strings Span 1		2/11-Feb-27	12-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, City

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar	
CON-46300	S4 - I - FW - Install Grillage/Bents/Bent Caps/Posts/Stingers Span 2 NB	1	20-Feb-27	20-Feb-27	5609 - Weekends, TDay, Xmas, WC, Cl	S4 - I - FW - Install Grillage/Bents/Bent Caps/Posts/Stingers Span 2 NB
CON-46310	S4 - I - FW - Install Grillage/Bents/Bent Caps/Posts/Stingers Span 2 SB	1	21-Feb-27	21-Feb-27	5609 - Weekends, TDay, Xmas, WC, Cl	S4 - I - FW - Install Grillage/Bents/Bent Caps/Posts/Stingers Span 2 SB
CON-46320	S4 - I - FW - Install Grillage/Bents/Bent Caps/Posts/Stingers Span 3	2	28-Feb-27	23-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - I - FW - Install Grillage/Bents/Bent Caps/Posts/Stingers Span 3
CON-46330	S4 - I - FW - Remove Grillage/Bents/Bent Caps/Posts/Stingers Span 1	2	30-Jul-27	02-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - I - FW - Remove Grillage/Bents/Bent Caps/Posts/Stingers Span 1
CON-46340	S4 - I - FW - Remove Grillage/Bents/Bent Caps/Posts/Stingers Span 2 NB	2	07-Aug-27	08-Aug-27	5609 - Weekends, TDay, Xmas, WC, Cl	S4 - I - FW - Remove Grillage/Bents/Bent Caps/Posts/Stingers Span 2 NB
CON-46350	S4 - I - FW - Remove Grillage/Bents/Bent Caps/Posts/Stingers Span 2 SB	2	14-Aug-27	15-Aug-27	5609 - Weekends, TDay, Xmas, WC, Cl	S4 - I - FW - Remove Grillage/Bents/Bent Caps/Posts/Stingers Span 2 SB
CON-46360	S4 - I - FW - Remove Grillage/Bents/Bent Caps/Posts/Stingers Span 3	2	16-Aug-27	17-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - I - FW - Remove Grillage/Bents/Bent Caps/Posts/Stingers Span 3
Const | SI 4 | Cen Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Sup | Soft & Stms						
CON-40400	S4 - I - S&S - Install Soft & Safety Rail - Span 1	4	24-Feb-27	01-Mar-27	5609 - SWD, Hol	S4 - I - S&S - Install Soft & Safety Rail - Span 1
CON-46370	S4 - I - S&S - Install Soft & Safety Rail - Span 2 NB	1	06-Mar-27	06-Mar-27	5609 - Weekends, TDay, Xmas, WC, Cl	S4 - I - S&S - Install Soft & Safety Rail - Span 2 NB
CON-46380	S4 - I - S&S - Install Soft & Safety Rail - Span 2 SB	1	07-Mar-27	07-Mar-27	5609 - Weekends, TDay, Xmas, WC, Cl	S4 - I - S&S - Install Soft & Safety Rail - Span 2 SB
CON-46390	S4 - I - S&S - Install Soft & Safety Rail - Span 3	3	08-Mar-27	10-Mar-27	5609 - SWD, Hol	S4 - I - S&S - Install Soft & Safety Rail - Span 3
CON-40410	S4 - I - S&S - Form Exterior Girder & OH	10	11-Mar-27	24-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - I - S&S - Form Exterior Girder & OH
CON-40401	S4 - I - S&S - Install Elastomeric Bearing Pads @ I-A1 & I-A4	4	11-Mar-27	16-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - I - S&S - Install Elastomeric Bearing Pads @ I-A1 & I-A4
CON-40430	S4 - I - S&S - Place Soft Rebar	9	25-Mar-27	31-Mar-27	5609 - SWD, Hol	S4 - I - S&S - Place Soft Rebar
CON-40440	S4 - I - S&S - Place Stem Rebar	4	01-Apr-27	06-Apr-27	5609 - SWD, Hol	S4 - I - S&S - Place Stem Rebar
CON-40450	S4 - I - S&S - Install PT Ducts - Frame 2 Soft & Stems	4	07-Apr-27	12-Apr-27	5609 - SWD, Hol	S4 - I - S&S - Install PT Ducts - Frame 2 Soft & Stems
CON-40420	S4 - I - S&S - Form Interior Girder & Walkways	17	13-Apr-27	05-May-27	5609 - SWD, Hol	S4 - I - S&S - Form Interior Girder & Walkways
CON-40490	S4 - I - S&S - Form Diaphragms & Blockouts	5	06-May-27	12-May-27	5609 - SWD, Hol	S4 - I - S&S - Form Diaphragms & Blockouts
CON-40460	S4 - I - S&S - Place Soft & Stem Concrete	2	13-May-27	14-May-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - I - S&S - Place Soft & Stem Concrete
CON-40470	S4 - I - S&S - Cure Soft & Stem Concrete	7	15-May-27	21-May-27	5609 - TCD [P]	S4 - I - S&S - Cure Soft & Stem Concrete
CON-40480	S4 - I - S&S - Strip Interior Girder Forms & Walkways	9	17-May-27	27-May-27	5609 - SWD, Hol	S4 - I - S&S - Strip Interior Girder Forms & Walkways
CON-40500	S4 - I - S&S - Strip Diaphragms	3	28-May-27	02-Jun-27	5609 - SWD, Hol	S4 - I - S&S - Strip Diaphragms
Const | SI 4 | Cen Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Sup | Deck						
CON-40510	S4 - I - DECK - Form Lost Deck	10	28-May-27	11-Jun-27	5609 - SWD, Hol	S4 - I - DECK - Form Lost Deck
CON-40530	S4 - I - DECK - Form EOD	5	14-Jun-27	18-Jun-27	5609 - SWD, Hol	S4 - I - DECK - Form EOD
CON-10540	S4 - I - DECK - Install Sored Rails & Run-Offs	6	15-Jun-27	22-Jun-27	5609 - SWD, Hol	S4 - I - DECK - Install Sored Rails & Run-Offs
CON-10520	S4 - I - DECK - Place Deck Rebar	8	21-Jun-27	28-Jun-27	5609 - SWD, Hol	S4 - I - DECK - Place Deck Rebar
CON-40550	S4 - I - DECK - Setup Bridge Finishing Machine & Work Bridges	1	23-Jun-27	23-Jun-27	5609 - SWD, Hol	S4 - I - DECK - Setup Bridge Finishing Machine & Work Bridges
CON-40580	S4 - I - DECK - Dry-run Bridge Finishing Machine	1	29-Jun-27	29-Jun-27	5609 - SWD, Hol	S4 - I - DECK - Dry-run Bridge Finishing Machine
CON-40560	S4 - I - DECK - Place Bridge Deck Concrete	1	30-Jun-27	30-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - I - DECK - Place Bridge Deck Concrete
CON-40570	S4 - I - DECK - Cure Bridge Deck Concrete	7	01-Jul-27	07-Jul-27	5609 - TCD [P]	S4 - I - DECK - Cure Bridge Deck Concrete
CON-40590	S4 - I - DECK - Strip Sored Rails & EOD	3	08-Jul-27	12-Jul-27	5609 - SWD, Hol	S4 - I - DECK - Strip Sored Rails & EOD
CON-40640	S4 - I - DECK - Strip Exterior Girder & OH Forms	6	13-Jul-27	19-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - I - DECK - Strip Exterior Girder & OH Forms
Const | SI 4 | Cen Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Sup | PT & BW						
CON-40610	S4 - I - PT - Install PT Strands	4	14-Jul-27	19-Jul-27	5609 - SWD, Hol	S4 - I - PT - Install PT Strands
CON-40520	S4 - I - PT - Stress & Lock-off	3	20-Jul-27	22-Jul-27	5609 - SWD, Hol	S4 - I - PT - Stress & Lock-off
CON-40530	S4 - I - PT - Grout PT Ducts	2	23-Jul-27	26-Jul-27	5609 - SWD, Hol	S4 - I - PT - Grout PT Ducts
CON-40550	S4 - I - PT - Form PT Blockouts	3	27-Jul-27	29-Jul-27	5609 - SWD, Hol	S4 - I - PT - Form PT Blockouts
CON-40560	S4 - I - PT - Place Backwall Rebar I-A1	1	30-Jul-27	30-Jul-27	5609 - SWD, Hol	S4 - I - PT - Place Backwall Rebar I-A1
CON-40570	S4 - I - PT - Form 25 Backwall I-A1	1	02-Aug-27	02-Aug-27	5609 - SWD, Hol	S4 - I - PT - Form 25 Backwall I-A1
CON-49101	S4 - I - PT - Place Backwall Rebar I-A4	1	02-Aug-27	02-Aug-27	5609 - SWD, Hol	S4 - I - PT - Place Backwall Rebar I-A4
CON-40580	S4 - I - PT - Place Backwall Concrete I-A1	1	03-Aug-27	03-Aug-27	5609 - SWD, Hol	S4 - I - PT - Place Backwall Concrete I-A1
CON-49111	S4 - I - PT - Form 25 Backwall I-A4	1	03-Aug-27	03-Aug-27	5609 - SWD, Hol	S4 - I - PT - Form 25 Backwall I-A4
CON-40590	S4 - I - PT - Cure Backwall Concrete I-A1	7	04-Aug-27	10-Aug-27	5609 - TCD [P]	S4 - I - PT - Cure Backwall Concrete I-A1
CON-49121	S4 - I - PT - Place Backwall Concrete I-A4	1	04-Aug-27	04-Aug-27	5609 - SWD, Hol	S4 - I - PT - Place Backwall Concrete I-A4
CON-49131	S4 - I - PT - Cure Backwall Concrete I-A4	7	05-Aug-27	11-Aug-27	5609 - TCD [P]	S4 - I - PT - Cure Backwall Concrete I-A4
CON-40700	S4 - I - PT - Strip Backwall Forms/Clean Bridge Seal 1 Day Minimum Removal I-A1	1	11-Aug-27	11-Aug-27	5609 - SWD, Hol	S4 - I - PT - Strip Backwall Forms/Clean Bridge Seal 1 Day Minimum Removal I-A1
CON-49141	S4 - I - PT - Strip Backwall Forms/Clean Bridge Seal 1 Day Minimum Removal I-A4	1	12-Aug-27	12-Aug-27	5609 - SWD, Hol	S4 - I - PT - Strip Backwall Forms/Clean Bridge Seal 1 Day Minimum Removal I-A4
Const | SI 4 | Cen Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Finishes						
CON-15270	S4 - Br I - FRP Approach Slab I-A1	5	12-Feb-27	19-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - Br I - FRP Approach Slab I-A1
CON-10740	S4 - Br I - FRP Bridge Rail	7	18-Aug-27	25-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - Br I - FRP Bridge Rail
CON-11020	S4 - Br I - Install Soft Lighting	5	18-Aug-27	24-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - Br I - Install Soft Lighting
CON-15280	S4 - Br I - FRP Approach Slab I-A4	6	12-Oct-27	16-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - Br I - FRP Approach Slab I-A4
CON-10960	S4 - Br I - Prep Deck & Photograph	6	19-Oct-27	25-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - Br I - Prep Deck & Photograph
CON-10980	S4 - Br I - Grind & Groove Deck	6	26-Oct-27	01-Nov-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - Br I - Grind & Groove Deck
CON-10990	S4 - Br I - Install Expansion Joints	6	02-Nov-27	09-Nov-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	S4 - Br I - Install Expansion Joints

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar
Const | St 4 | Cen Access | Seg 1 | At Grade Sta 24+32 to CTA Tie In			40 27-Aug-27	22-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty
CON-31220	S4 - 124+32 to Tie In - Remove Pavements & Hardscapes		4 27-Aug-27	01-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty
CON-31230	S4 - 124+32 to Tie In - Perform Roadway Excavation		4 02-Sep-27	08-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty
CON-31240	S4 - 124+32 to Tie In - Install Storm Drainage & Appurtenances		20 08-Sep-27	06-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty
CON-31250	S4 - 124+32 to Tie In - Grade for Flatwork & Barriers		3 07-Oct-27	11-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty
CON-31260	S4 - 124+32 to Tie In - Place Flatwork & Barriers		3 12-Oct-27	14-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty
CON-31270	S4 - 124+32 to Tie In - Prep Subgrade & Place Agg Base		4 15-Oct-27	20-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty
CON-31280	S4 - 124+32 to Tie In - Place AC Base Pavement		2 21-Oct-27	22-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty
Const | St 4 | Cen Access | Seg 1 | At Grade Gore to Seg U			20 03-Feb-28	02-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty
CON-51151	S4 - 1 Gore @ Seg U - Remove Pavements & Hardscapes		4 03-Feb-28	08-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty
CON-51161	S4 - 1 Gore @ Seg U - Perform Roadway Excavation		3 09-Feb-28	11-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty
CON-51201	S4 - 1 Gore @ Seg U - Place Flatwork & Barriers		7 14-Feb-28	23-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty
CON-51211	S4 - 1 Gore @ Seg U - Prep Subgrade & Place Agg Base		5 24-Feb-28	01-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty
CON-51221	S4 - 1 Gore @ Seg U - Place AC Base Pavement		1 02-Mar-28	02-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty
Const | St 4 | Cen Access | Seg K			200 05-Nov-27	25-Aug-28	
Const | St 4 | Cen Access | Seg K | Retained Fill Sta 52+06 to Sta 54+55			200 05-Nov-27	25-Aug-28	
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-1			57 15-Nov-27	10-Feb-28	
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-1 | CIDH			16 15-Nov-27	09-Dec-27	
CON-35420	S4 - Wall K-1 - Prep Work Pad for CIDH / Remove Ex Pannels		2 15-Nov-27	16-Nov-27	5609 - SWD, Hol
CON-35430	S4 - Wall K-1 - Install CIDH Shafts		4 29-Nov-27	02-Dec-27	5609 - SWD, Hol
CON-35440	S4 - Wall K-1 - Final Cure CIDH Shafts		7 03-Dec-27	08-Dec-27	5609 - TCD [P]
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-1 | Section 1			20 23-Dec-27	28-Jan-28	
CON-35450	S4 - Wall K-1 - Excavate/Sandblast/Fine Grd for Footing Section 1		5 22-Dec-27	29-Dec-27	5609 - SWD, Hol
CON-35460	S4 - Wall K-1 - FRP Footing Section 1		5 30-Dec-27	09-Jan-28	5609 - SWD, Hol
CON-35510	S4 - Wall K-1 - FRP Panels Section 1		4 12-Jan-28	17-Jan-28	5609 - SWD, Hol
CON-35540	S4 - Wall K-1 - Cure Section 1		1 18-Jan-28	18-Jan-28	5609 - TCD [P]
CON-35570	S4 - Wall K-1 - Strip Panels Section 1		2 19-Jan-28	20-Jan-28	5609 - SWD, Hol
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-1 | Section 2			2 30-Dec-27	28-Jan-28	
CON-35460	S4 - Wall K-1 - Over Excavate for Footing Section 2		2 30-Dec-27	33-Jan-28	5609 - SWD, Hol
CON-49481	S4 - Wall K-1 - Place Soil Correction for Footing Section 2		2 34-Jan-28	36-Jan-28	5609 - SWD, Hol
CON-49491	S4 - Wall K-1 - Excavate/Keyway/Fine Grd for Footing Section 2		1 26-Jan-28	26-Jan-28	5609 - SWD, Hol
CON-35490	S4 - Wall K-1 - FRP Footing Section 2		3 27-Jan-28	17-Jan-28	5609 - SWD, Hol
CON-35520	S4 - Wall K-1 - FRP Panels Section 2		6 18-Jan-28	25-Jan-28	5609 - SWD, Hol
CON-35550	S4 - Wall K-1 - Cure Section 2		1 26-Jan-28	26-Jan-28	5609 - TCD [P]
CON-35580	S4 - Wall K-1 - Strip Panels Section 2		2 27-Jan-28	29-Jan-28	5609 - SWD, Hol
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-1 | Finishes			1 25-Jan-28	10-Feb-28	
CON-49501	S4 - Wall K-1 - Final Water Cure Panels		6 25-Jan-28	03-Feb-28	5609 - TCD [P]
CON-36380	S4 - Wall K-1 - Surface Finish Front Face / Install Arch Finishes		6 04-Feb-28	10-Feb-28	5609 - SWD, Hol
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-2			43 05-Nov-27	21-Jan-28	
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-2 | CIDH			16 05-Nov-27	01-Dec-27	
CON-35600	S4 - Wall K-2 - Install SOE & Prep Work Pad for CIDH		5 05-Nov-27	12-Nov-27	5609 - SWD, Hol
CON-35510	S4 - Wall K-2 - Install CIDH Shafts		6 17-Nov-27	24-Nov-27	5609 - SWD, Hol
CON-35620	S4 - Wall K-2 - Final Cure CIDH Shafts		7 25-Nov-27	01-Dec-27	5609 - TCD [P]
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-2 | Section 1			28 02-Dec-27	08-Dec-27	
CON-35630	S4 - Wall K-2 - Excavate/Sandblast/Fine Grd for Footing Section 1		4 02-Dec-27	08-Dec-27	5609 - SWD, Hol
CON-35650	S4 - Wall K-2 - FRP Footing Section 1		5 09-Dec-27	16-Dec-27	5609 - SWD, Hol
CON-35670	S4 - Wall K-2 - FRP Panels Section 1		4 22-Dec-27	28-Dec-27	5609 - SWD, Hol
CON-35690	S4 - Wall K-2 - Cure Section 1		1 29-Dec-27	29-Dec-27	5609 - TCD [P]
CON-35710	S4 - Wall K-2 - Strip Panels Section 1		2 30-Dec-27	03-Jan-28	5609 - SWD, Hol
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-2 | Section 2			19 09-Dec-27	10-Jan-28	
CON-35640	S4 - Wall K-2 - Over Excavate for Footing Section 2		3 09-Dec-27	14-Dec-27	5609 - SWD, Hol
CON-49511	S4 - Wall K-2 - Place Soil Correction for Footing Section 2		3 15-Dec-27	20-Dec-27	5609 - SWD, Hol
CON-49521	S4 - Wall K-2 - Excavate/Keyway/Fine Grd for Footing Section 2		1 21-Dec-27	21-Dec-27	5609 - SWD, Hol
CON-35660	S4 - Wall K-2 - FRP Footing Section 2		4 22-Dec-27	28-Dec-27	5609 - SWD, Hol
CON-35680	S4 - Wall K-2 - FRP Panels Section 2		6 29-Dec-27	05-Jan-28	5609 - SWD, Hol
CON-35700	S4 - Wall K-2 - Cure Section 2		1 06-Jan-28	06-Jan-28	5609 - TCD [P]

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-35720	S4 - Wall K-2 - Sup Panels Section 2	2	07-Jan-28	10-Jan-28	5609 - SWD, Hol	
Const | St A | Con Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-2 | Finishes		1	11-Jan-28	11-Jan-28		
CON-48531	S4 - Wall K-2 - Final Water Cure Panels	8	11-Jan-28	16-Jan-28	5609 - TCD [P]	
CON-38390	S4 - Wall K-2 - Surface Finish Front Face / Install Arch Finishes	9	17-Jan-28	21-Jan-28	5609 - SWD, Hol	
Const | St A | Con Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Rdwy Section		1	11-Jan-28	11-Jan-28		
CON-36430	S4 - K 52+06 to 54+55 - Place, Contour & Grade Wall 3P & Ramp Embankment	10	10-Jul-28	21-Jul-28	5609 - SWD, Hol	
CON-36440	S4 - K 52+06 to 54+55 - Install Drainage Pipe & Appurtenances	5	24-Jul-28	28-Jul-28	5609 - SWD, Hol	
CON-36450	S4 - K 52+06 to 54+55 - Install Drainage Brame & Appurtenances	10	27-Jul-28	06-Aug-28	5609 - SWD, Hol	
CON-36460	S4 - K 52+06 to 54+55 - Fine Grade Subgrade	3	10-Aug-28	14-Aug-28	5609 - SWD, Hol	
CON-36470	S4 - K 52+06 to 54+55 - Place & Fine Grade Agg Base	4	15-Aug-28	18-Aug-28	5609 - SWD, Hol	
CON-36480	S4 - K 52+06 to 54+55 - Place HMA Base Course Pavement	1	21-Aug-28	21-Aug-28	5609 - SWD, Hol	
CON-36460	S4 - K 52+06 to 54+55 - FRP Traffic Barrier	4	22-Aug-28	25-Aug-28	5609 - SWD, Hol	
Const | Stage 5		921	25-Mar-28	06-Dec-29		
Const | St 5 | Sep Access		724	25-Mar-28	26-Feb-29		
Const | St 5 | Sep Access | Seg D		724	25-Mar-28	26-Feb-29		
Const | St 5 | Sep Access | Seg D | Roadway Finishes		33	10-Jan-29	26-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-19400	S5 - D - Construct Final Roadway Finishes	33	10-Jan-29	26-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06		710	25-Mar-28	16-Feb-29		
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3		707	25-Mar-28	16-Feb-29		
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | F & S		28	09-Feb-28	15-Mar-28		
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | F & S | Bent D2-B9		4	15-Feb-28	16-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-27230	S5 - D2-F3 - D2-B9 - Install C/DH Shell(s)	7	15-Feb-28	21-Feb-28	5609 - TCD [P]	
CON-27240	S5 - D2-F3 - D2-B9 - Cure Shell	4	15-Feb-28	18-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-27250	S5 - D2-F3 - D2-B9 - Prep Transition Zone/Set Column Cage & Guy	1	15-Feb-28	16-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-27260	S5 - D2-F3 - D2-B9 - Place Transition Zone Concrete	1	22-Feb-28	22-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-27270	S5 - D2-F3 - D2-B9 - Cure Transition Zone Concrete	7	23-Feb-28	29-Feb-28	5609 - TCD [P]	
CON-27280	S5 - D2-F3 - D2-B9 - Form Column	3	23-Feb-28	25-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-27320	S5 - D2-F3 - D2-B9 - Connect Thermal Control System	1	28-Feb-28	28-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-27290	S5 - D2-F3 - D2-B9 - Place Column Concrete	1	01-Mar-28	01-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-27300	S5 - D2-F3 - D2-B9 - Cure Column Concrete	7	02-Mar-28	08-Mar-28	5609 - TCD [P]	
CON-27310	S5 - D2-F3 - D2-B9 - Strip Column Forms 1 Day Minimum Removal	1	09-Mar-28	09-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | F & S | Bent D2-B10		4	15-Feb-28	16-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-26930	S5 - D2-F3 - D2-B10 - Install C/DH Shell(s)	7	19-Feb-28	25-Feb-28	5609 - TCD [P]	
CON-26940	S5 - D2-F3 - D2-B10 - Cure Shell	4	22-Feb-28	25-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-26950	S5 - D2-F3 - D2-B10 - Prep Transition Zone/Set Column Cage & Guy	1	28-Feb-28	28-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-26960	S5 - D2-F3 - D2-B10 - Place Transition Zone Concrete	7	29-Feb-28	06-Mar-28	5609 - TCD [P]	
CON-26970	S5 - D2-F3 - D2-B10 - Form Column	3	29-Feb-28	02-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-27020	S5 - D2-F3 - D2-B10 - Connect Thermal Control System	1	03-Mar-28	03-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-26990	S5 - D2-F3 - D2-B10 - Place Column Concrete	7	07-Mar-28	07-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-27000	S5 - D2-F3 - D2-B10 - Cure Column Concrete	7	08-Mar-28	14-Mar-28	5609 - TCD [P]	
CON-27010	S5 - D2-F3 - D2-B10 - Strip Column Forms 1 Day Minimum Removal	1	15-Mar-28	15-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | Sup		1	15-Mar-28	15-Mar-28		
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | Sup | FW		1	15-Mar-28	15-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-40180	S5 - D2-F3 - FW - Install Grillage/Bent/Bent Caps/Posts - North of Century	5	25-Mar-28	31-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-51101	S5 - D2-F3 - FW - Install Grillage/Bent/Bent Caps/Posts - Over WB Century	4	10-Mar-28	15-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-51111	S5 - D2-F3 - FW - Install Grillage/Bent/Bent Caps/Posts - Over EB Century	8	16-Mar-28	27-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-48781	S5 - D2-F3 - FW - Remove Falsework - North of Century	5	15-Jan-29	19-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-51141	S5 - D2-F3 - FW - Remove Falsework - Over WB Century	2	22-Jan-29	23-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-51151	S5 - D2-F3 - FW - Remove Falsework - Over EB Century	8	24-Jan-29	31-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | Sup | Soffit/Stems		1	15-Mar-28	15-Mar-28		
CON-40190	S5 - D2-F3 - S&S - Install Soffit & Safety Rail - North of Century	6	01-Apr-28	13-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-51121	S5 - D2-F3 - S&S - Install Soffit & Safety Rail - Over WB Century	5	16-Mar-28	22-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-51131	S5 - D2-F3 - S&S - Install Soffit & Safety Rail - Over EB Century	7	28-Mar-28	06-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-10240	S5 - D2-F3 - S&S - Form Exterior Girder & Ch	20	08-Apr-28	03-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oy	
CON-10250	S5 - D2-F3 - S&S - Place Soffit Rebar	5	04-May-28	10-May-28	5609 - SWD, Hol	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

SKANSKA FLATIRON

ATMP PRELIMINARY CONSTRUCTION SCHEDULE

Update 20-C

Activity ID	Activity Name	Duration	Start	Finish	Calendar	Resources	Notes
CON-40260	S5 - D2-F3 - S&S - Place Stem Rebar	5	11-May-28	17-May-28	5609 - SWD, Hol		
CON-40270	S5 - D2-F3 - S&S - Install PT Cords	3	18-May-28	22-May-28	5609 - SWD, Hol		
CON-40280	S5 - D2-F3 - S&S - Form Interior Girder & Walkways	25	23-May-28	27-Jun-28	5609 - SWD, Hol		
CON-40290	S5 - D2-F3 - S&S - Form Diaphragms & Blockouts	12	28-Jun-28	14-Jul-28	5609 - SWD, Hol		
CON-40200	S5 - D2-F3 - S&S - Place Soffit & Stem Concrete	2	07-Aug-28	08-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-40210	S5 - D2-F3 - S&S - Cure Soffit & Stem Concrete	7	09-Aug-28	15-Aug-28	5609 - TCD [P]		
CON-40220	S5 - D2-F3 - S&S - Strip Interior Girder Forms & Walkways	17	09-Aug-28	31-Aug-28	5609 - SWD, Hol		
CON-40230	S5 - D2-F3 - S&S - Strip Diaphragms	12	01-Sep-28	19-Sep-28	5609 - SWD, Hol		
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | Sup | Deck		38	20-Sep-28	13-Nov-29			
CON-40300	S5 - D2-F3 - DECK - Form Lost Deck	11	20-Sep-28	04-Oct-28	5609 - SWD, Hol		
CON-40320	S5 - D2-F3 - DECK - Form EOD	4	05-Oct-28	10-Oct-28	5609 - SWD, Hol		
CON-40330	S5 - D2-F3 - DECK - Install Scaffolding & Run-Offs	5	06-Oct-28	12-Oct-28	5609 - SWD, Hol		
CON-40310	S5 - D2-F3 - DECK - Place Deck Rebar	5	11-Oct-28	17-Oct-28	5609 - SWD, Hol		
CON-40340	S5 - D2-F3 - DECK - Setup Bridge Finishing Machine & Work Bridges	1	13-Oct-28	13-Oct-28	5609 - SWD, Hol		
CON-40370	S5 - D2-F3 - DECK - Dry-run Bridge Finishing Machine	1	18-Oct-28	18-Oct-28	5609 - SWD, Hol		
CON-10350	S5 - D2-F3 - DECK - Place Bridge Deck Concrete	1	19-Oct-28	19-Oct-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-40350	S5 - D2-F3 - DECK - Cure Bridge Deck Concrete	7	20-Oct-28	26-Oct-28	5609 - TCD [P]		
CON-10380	S5 - D2-F3 - DECK - Strip Scaffolding & EOD	2	27-Oct-28	30-Oct-28	5609 - SWD, Hol		
CON-48831	S5 - D2-F3 - DECK - Strip Ext Girder & OH	9	31-Oct-28	13-Nov-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | Sup | PT		12	07-Nov-28	27-Nov-29			
CON-48791	S5 - D2-F3 - PT - Install PT Strands	4	07-Nov-28	13-Nov-28	5609 - SWD, Hol		
CON-48801	S5 - D2-F3 - PT - Stress & Lock-off	3	14-Nov-28	16-Nov-28	5609 - SWD, Hol		
CON-48811	S5 - D2-F3 - PT - Grout PT Strands	2	17-Nov-28	20-Nov-28	5609 - SWD, Hol		
CON-48821	S5 - D2-F3 - PT - Form PT Blockouts	3	21-Nov-28	27-Nov-28	5609 - SWD, Hol		
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4		13	14-Nov-28	27-Nov-28			
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4 | F & S		3	10-Nov-27	04-Jan-28			
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4 | F & S | Bent D2-B11		22	17-Nov-27	20-Dec-27			
CON-32520	S5 - D2-F4 - D2-B11 - Install CIDH Shafts	4	17-Nov-27	30-Nov-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-32530	S5 - D2-F4 - D2-B11 - Cure Shaft	7	01-Dec-27	07-Dec-27	5609 - TCD [P]		
CON-32510	S5 - D2-F4 - D2-B11 - Prep Transition Zone/Set Column Cage & Guy	4	01-Dec-27	07-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-32680	S5 - D2-F4 - D2-B11 - Place Transition Zone Concrete	1	38-Dec-27	38-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-32720	S5 - D2-F4 - D2-B11 - Cure Transition Zone Concrete	7	39-Dec-27	15-Jan-28	5609 - TCD [P]		
CON-32730	S5 - D2-F4 - D2-B11 - Form Column	3	39-Dec-27	14-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-32760	S5 - D2-F4 - D2-B11 - Connect Thermal Control System	1	15-Dec-27	15-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-32690	S5 - D2-F4 - D2-B11 - Place Column Concrete	1	15-Dec-27	15-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-32900	S5 - D2-F4 - D2-B11 - Cure Column Concrete	7	17-Dec-27	23-Dec-27	5609 - TCD [P]		
CON-32510	S5 - D2-F4 - D2-B11 - Strip Column Forms 1 Day Minimum Removal	1	20-Dec-27	20-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4 | F & S | Bent D2-B12		38	17-Nov-27	13-Jan-28			
CON-32690	S5 - D2-F4 - D2-B12 - Install CIDH Shafts	4	10-Nov-27	16-Nov-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-32800	S5 - D2-F4 - D2-B12 - Cure Shaft	7	17-Nov-27	23-Nov-27	5609 - TCD [P]		
CON-51731	S5 - D2-F4 - D2-B12 - Excavate for Isolation Casing & Trim Slip Casing	2	17-Nov-27	18-Nov-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-32810	S5 - D2-F4 - D2-B12 - Prep Transition Zone/Set Column Cage & Guy	4	29-Nov-27	02-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-32990	S5 - D2-F4 - D2-B12 - Place Transition Zone Concrete	1	06-Dec-27	06-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-33010	S5 - D2-F4 - D2-B12 - Cure Transition Zone Concrete	7	07-Dec-27	13-Dec-27	5609 - TCD [P]		
CON-33050	S5 - D2-F4 - D2-B12 - Form Column	3	07-Dec-27	09-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-33150	S5 - D2-F4 - D2-B12 - Connect Thermal Control System	1	13-Dec-27	13-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-33270	S5 - D2-F4 - D2-B12 - Place Column Concrete	1	14-Dec-27	14-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-33340	S5 - D2-F4 - D2-B12 - Cure Column Concrete	7	15-Dec-27	21-Dec-27	5609 - TCD [P]		
CON-33350	S5 - D2-F4 - D2-B12 - Strip Column Forms 1 Day Minimum Removal	1	22-Dec-27	22-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-51741	S5 - D2-F4 - D2-B12 - Install Isolation Casing & Backfill	3	23-Dec-27	04-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4 | Sup		228	05-Jan-28	13-Jan-28			
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4 | Sup | FW		221	05-Jan-28	13-Jan-28			
CON-33410	S5 - D2-F4 - FW - Install Girders/Bents/Bent Cap/Posts	4	05-Jan-28	10-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-48841	S5 - D2-F4 - FW - Remove Falsework	4	15-Jan-28	19-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4 | Sup | Soffit/Stom		78	11-Jan-28	26-Apr-29			
CON-33590	S5 - D2-F4 - S&S - Install Soffit & Safety Rail	13	11-Jan-28	27-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly		
CON-33920	S5 - D2-F4 - S&S - Form Exterior Girder & OH	14	28-Jan-28	16-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly		

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-34371	S5 - D2-F4 - S&S - Install Elastomeric Bearing Pads @ D2-A13	5	26-Jun-28	03-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Cl	
CON-33990	S5 - D2-F4 - S&S - Place Solfit Rebar	7	03-Feb-28	11-Feb-28	5609 - SWD, Hol	
CON-34010	S5 - D2-F4 - S&S - Place Stem Rebar	7	14-Feb-28	23-Feb-28	5609 - SWD, Hol	
CON-34020	S5 - D2-F4 - S&S - Install PT Ducts	4	19-Feb-28	24-Feb-28	5609 - SWD, Hol	
CON-34030	S5 - D2-F4 - S&S - Form Interior Girders & Walkways	20	25-Feb-28	23-Mar-28	5609 - SWD, Hol	
CON-34040	S5 - D2-F4 - S&S - Form Diaphragms & Blockouts	3	24-Mar-28	26-Mar-28	5609 - SWD, Hol	
CON-34050	S5 - D2-F4 - S&S - Place Solfit & Stem Concrete	2	28-Mar-28	30-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Cl	
CON-34060	S5 - D2-F4 - S&S - Cure Solfit & Stem Concrete	7	31-Mar-28	06-Apr-28	5609 - TCD [P]	
CON-34070	S5 - D2-F4 - S&S - Strip Interior Girders Forms & Walkways	18	31-Mar-28	20-Apr-28	5609 - SWD, Hol	
CON-34080	S5 - D2-F4 - S&S - Strip Diaphragms	4	21-Apr-28	28-Apr-28	5609 - SWD, Hol	
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4 | Sup | Deck		16	27-Apr-28	12-Jun-28		
CON-34100	S5 - D2-F4 - DECK - Form Lost Deck	9	27-Apr-28	05-May-28	5609 - SWD, Hol	
CON-34110	S5 - D2-F4 - DECK - Form EOD	3	10-May-28	12-May-28	5609 - SWD, Hol	
CON-34120	S5 - D2-F4 - DECK - Install Spread Rails & Run-Offs	4	11-May-28	16-May-28	5609 - SWD, Hol	
CON-34130	S5 - D2-F4 - DECK - Place Deck Rebar	9	15-May-28	25-May-28	5609 - SWD, Hol	
CON-34140	S5 - D2-F4 - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	17-May-28	17-May-28	5609 - SWD, Hol	
CON-34150	S5 - D2-F4 - DECK - Dayrun Bridge Finishing Machine	1	26-May-28	26-May-28	5609 - SWD, Hol	
CON-34160	S5 - D2-F4 - DECK - Place Bridge Deck Concrete	1	30-May-28	30-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Cl	
CON-49381	S5 - D2-F4 - DECK - Cure Bridge Deck Concrete	7	31-May-28	06-Jun-28	5609 - TCD [P]	
CON-49371	S5 - D2-F4 - DECK - Strip Spread Rails & EOD	2	27-Jun-28	08-Jun-28	5609 - SWD, Hol	
CON-49371	S5 - D2-F4 - DECK - Strip Exterior Girders & DM Forms	4	09-Jun-28	14-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, Cl	
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4 | Sup | PT & BW						
CON-34190	S5 - D2-F4 - PT - Install PT Strands	4	09-Jun-28	14-Jun-28	5609 - SWD, Hol	
CON-34200	S5 - D2-F4 - PT - Stress & Lock-off	3	15-Jun-28	19-Jun-28	5609 - SWD, Hol	
CON-34210	S5 - D2-F4 - PT - Grout PT Ducts	2	20-Jun-28	21-Jun-28	5609 - SWD, Hol	
CON-34230	S5 - D2-F4 - PT - FRP PT Blockouts	3	22-Jun-28	26-Jun-28	5609 - SWD, Hol	
CON-34240	S5 - D2-F4 - PT - Place Backwall Rebar D2-A13	1	27-Jun-28	27-Jun-28	5609 - SWD, Hol	
CON-34250	S5 - D2-F4 - PT - Form 2S Backwall D2-A13	1	28-Jun-28	28-Jun-28	5609 - SWD, Hol	
CON-34260	S5 - D2-F4 - PT - Place Backwall Concrete D2-A13	1	29-Jun-28	29-Jun-28	5609 - SWD, Hol	
CON-34270	S5 - D2-F4 - PT - Cure Backwall Concrete D2-A13	7	30-Jun-28	06-Jul-28	5609 - TCD [P]	
CON-34280	S5 - D2-F4 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal D2-A13	1	07-Jul-28	07-Jul-28	5609 - SWD, Hol	
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Hinges						
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Hinge D2-F2/D2-F3						
CON-28410	S5 - Br D2 - D2-F2/D2-F3 - FRP Hinge Upper Seat	10	28-Nov-28	13-Dec-28	5609 - SWD, Hol	
CON-28420	S5 - Br D2 - D2-F2/D2-F3 - Cure Hinges	10	14-Dec-28	23-Dec-28	5609 - TCD [P]	
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Hinge D2-F3/D2-F4						
CON-28450	S5 - Br D2 - D2-F3/D2-F4 - FRP Hinge Lower Seat	10	28-Nov-28	13-Dec-28	5609 - SWD, Hol	
CON-28440	S5 - Br D2 - D2-F3/D2-F4 - FRP Hinge Upper Seat	10	14-Dec-28	23-Dec-28	5609 - SWD, Hol	
CON-28450	S5 - Br D2 - D2-F3/D2-F4 - Cure Hinges	10	14-Dec-28	23-Dec-28	5609 - TCD [P]	
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Finishes						
CON-36750	S5 - Br D2 - FRP Approach Slab D2-A13	5	24-Jul-28	28-Jul-28	5609 - SWD, Hol	
CON-10750	S5 - Br D2 - FRP Bridge Rail	21	19-Jan-29	15-Feb-29	5609 - SWD, Hol	
Const | St 5 | Sep Access		531	15-Oct-27	06-Nov-28		
Const | St 5 | Sep Access | MOT		313	28-Oct-27	02-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Cl	
CON-32610	S5 - Establish MOT Measures for Seg P Construction	2	26-Oct-27	27-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Cl	
CON-32600	S5 - Establish MOT Measures on Center Way for Seg K Tie In	2	14-Jun-28	15-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, Cl	
CON-32650	S5 - Open Segment A in Stage 3 Configuration	2	27-Feb-29	28-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Cl	
CON-45381	S5 - Open Segment P in Stage 8 Configuration	2	01-May-29	02-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Cl	
Const | St 5 | Sep Access | Demolition		531	15-Oct-27	06-Nov-28		
CON-38660	S5 - Demo Existing SB Sep - EB Can Loop Ramp - Enabling Work Seg M & N	7	15-Oct-27	25-Oct-27	5609 - SWD, Hol	
CON-32390	S5 - Demo Existing WB Century Pavement - Enabling Work Seg K	10	03-Feb-28	16-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Cl	
CON-47581	S5 - Demo WB Century Temp X-Over	2	03-Feb-28	04-Feb-28	5609 - SWD, Hol	
CON-40720	S5 - Demo Existing Arrivals to SB Sepulveda Pavement	5	03-May-29	09-May-29	5609 - SWD, Hol	
CON-40730	S5 - Decommission Existing Departures to SB Sepulveda Ramp	2	05-Dec-29	06-Dec-29	5609 - SWD, Hol, TDay, Xmas, WC, Cl	
Const | St 5 | Sep Access | Demolition | Ex EB Century Over Sep - Enabling Work Seg M, N & NE		20	05-May-28	31-May-28		
CON-38470	S5 - Demo Ex EB Century Over Sep - Demo Curtain Walls @ Abut	4	03-May-28	06-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Cl	

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

SKANSKA FLATIRON

ATMP PRELIMINARY CONSTRUCTION SCHEDULE

Update 20-C

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-51451	S5 - Demo Ex EB Century Over Sep - Remove Light Fixtures & Metal Rail	3	09-May-29	11-May-29	5609 - SWD, Hol	S5 - Demo Ex EB Century Over Sep - Remove Light Fixtures & Metal Rail
CON-51461	S5 - Demo Ex EB Century Over Sep - Demo S8 Span Over Sep	2	12-May-29	13-May-29	5609 - Weekends, TDay, Xmas, W.C. City	S5 - Demo Ex EB Century Over Sep - Demo S8 Span Over Sep
CON-51471	S5 - Demo Ex EB Century Over Sep - Demo West Abut & Pier Wall	4	14-May-29	17-May-29	5609 - SWD, Hol, TDay, Xmas, W.C. City	S5 - Demo Ex EB Century Over Sep - Demo West Abut & Pier Wall
CON-51481	S5 - Demo Ex EB Century Over Sep - Demo NB Span Over Sep	2	19-May-29	20-May-29	5609 - Weekends, TDay, Xmas, W.C. City	S5 - Demo Ex EB Century Over Sep - Demo NB Span Over Sep
CON-51491	S5 - Demo Ex EB Century Over Sep - Demo East Abut & Pier Wall	4	21-May-29	24-May-29	5609 - SWD, Hol, TDay, Xmas, W.C. City	S5 - Demo Ex EB Century Over Sep - Demo East Abut & Pier Wall
CON-51501	S5 - Demo Ex EB Century Over Sep - Demo Median Piers	4	25-May-29	31-May-29	5609 - SWD, Hol, TDay, Xmas, W.C. City	S5 - Demo Ex EB Century Over Sep - Demo Median Piers
Const | St 5 | Con Access | Seg K						
150	15-Jun-28	09-Feb-29				
Const | St 5 | Con Access | Seg K | Roadway Finishes						
CON-38380	S5 - K - Install DHS Bridge Fndins & Gantry	7	16-Jun-28	08-Aug-28	5609 - SWD, Hol, TDay, Xmas, W.C. City	S5 - K - Install DHS Bridge Fndins & Gantry
CON-38390	S5 - K - Install OH Wayfinding Signs	8	08-Aug-28	15-Aug-28	5609 - SWD, Hol, TDay, Xmas, W.C. City	S5 - K - Install OH Wayfinding Signs
CON-38260	S5 - K - Install Light Fixtures Sta 52+06 to Sta 56+16	5	23-Aug-28	29-Aug-28	5609 - SWD, Hol	S5 - K - Install Light Fixtures Sta 52+06 to Sta 56+16
CON-53651	S5 - K - Install ITS Gantry	2	30-Aug-29	31-Aug-28	5609 - SWD, Hol, TDay, Xmas, W.C. City	S5 - K - Install ITS Gantry
CON-38400	S5 - K - Place Sidewalks & ADA Ramps	6	01-Sep-28	28-Sep-28	5609 - SWD, Hol, TDay, Xmas, W.C. City	S5 - K - Place Sidewalks & ADA Ramps
CON-38410	S5 - K - Place HMA Wearing Course Pavement	5	11-Sep-28	16-Sep-28	5609 - SWD, Hol, TDay, Xmas, W.C. City	S5 - K - Place HMA Wearing Course Pavement
CON-38370	S5 - K - Install Light Fixtures Sta 59+61 to Sta 56+34	5	24-Oct-28	30-Oct-28	5609 - SWD, Hol	S5 - K - Install Light Fixtures Sta 59+61 to Sta 56+34
CON-38040	S5 - K - Install Rdwy Signage, Striping & Misc Finishes	20	15-Jan-29	29-Feb-29	5609 - SWD, Hol, TDay, Xmas, W.C. City	S5 - K - Install Rdwy Signage, Striping & Misc Finishes
Const | St 5 | Con Access | Seg K | At Grade Sta 54+55 to Sta 56+16						
48	10-Jul-28	11-Sep-28				
CON-37890	S5 - K 54+55 to 56+16 - Remove Pavements & Hardscapes	4	10-Jul-28	13-Jul-28	5609 - SWD, Hol	S5 - K 54+55 to 56+16 - Remove Pavements & Hardscapes
CON-37900	S5 - K 54+55 to 56+16 - Perform Roadway Excavation	4	14-Jul-28	16-Jul-28	5609 - SWD, Hol	S5 - K 54+55 to 56+16 - Perform Roadway Excavation
CON-37910	S5 - K 54+55 to 56+16 - Install Storm Drainage & Appurtenances	20	20-Jul-28	16-Aug-28	5609 - SWD, Hol	S5 - K 54+55 to 56+16 - Install Storm Drainage & Appurtenances
CON-37930	S5 - K 54+55 to 56+16 - Place Network & Curb & Gutter	4	17-Aug-28	22-Aug-28	5609 - SWD, Hol	S5 - K 54+55 to 56+16 - Place Network & Curb & Gutter
CON-37940	S5 - K 54+55 to 56+16 - Prep Subgrade & Place Agg Base	6	23-Aug-28	30-Aug-28	5609 - SWD, Hol	S5 - K 54+55 to 56+16 - Prep Subgrade & Place Agg Base
CON-37950	S5 - K 54+55 to 56+16 - Place HMA Base Course Pavement	1	31-Aug-28	31-Aug-28	5609 - SWD, Hol	S5 - K 54+55 to 56+16 - Place HMA Base Course Pavement
CON-48861	S5 - K 54+55 to 56+16 - Place Traffic Barrier	6	01-Sep-28	11-Sep-28	5609 - SWD, Hol	S5 - K 54+55 to 56+16 - Place Traffic Barrier
Const | St 5 | Con Access | Seg K | Bridge Sta 56+16 to Sta 59+61						
227	11-Feb-28	12-Jan-29				
Const | St 5 | Con Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | Fndins & Sub						
36	17-Feb-28	03-May-29				
Const | St 5 | Con Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | F & S | Abutment						
CON-32530	S5 - K-F1 - K-A1 - Prep Work Pad For CIDH	1	17-Feb-28	17-Feb-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Prep Work Pad For CIDH
CON-32560	S5 - K-F1 - K-A1 - Install CIDH Sheet(s)	7	23-Feb-28	02-Mar-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Install CIDH Sheet(s)
CON-32630	S5 - K-F1 - K-A1 - Excavate Footing	4	03-Mar-28	08-Mar-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Excavate Footing
CON-32640	S5 - K-F1 - K-A1 - Cure CIDH	7	03-Mar-28	09-Mar-28	5609 - TCD [P]	S5 - K-F1 - K-A1 - Cure CIDH
CON-32700	S5 - K-F1 - K-A1 - Prep CIDH For Footing Construction	3	09-Mar-28	13-Mar-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Prep CIDH For Footing Construction
CON-32770	S5 - K-F1 - K-A1 - Form Footing/Dowel Template	3	14-Mar-28	16-Mar-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Form Footing/Dowel Template
CON-32870	S5 - K-F1 - K-A1 - Place Rebar	3	17-Mar-28	21-Mar-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Place Rebar
CON-33000	S5 - K-F1 - K-A1 - Place Footing Concrete	1	22-Mar-28	22-Mar-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Place Footing Concrete
CON-33020	S5 - K-F1 - K-A1 - Cure Footing Concrete	7	23-Mar-28	29-Mar-28	5609 - TCD [P]	S5 - K-F1 - K-A1 - Cure Footing Concrete
CON-33060	S5 - K-F1 - K-A1 - Strip Footing Forms/Dowel Template	1	23-Mar-28	23-Mar-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Strip Footing Forms/Dowel Template
CON-33100	S5 - K-F1 - K-A1 - Blast/Prep For Stems & Wings	1	24-Mar-28	24-Mar-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Blast/Prep For Stems & Wings
CON-33160	S5 - K-F1 - K-A1 - Form 15 Stems/Wings/Backwall	3	27-Mar-28	29-Mar-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Form 15 Stems/Wings/Backwall
CON-33230	S5 - K-F1 - K-A1 - Place Stem & Wing Rebar	3	30-Mar-28	03-Apr-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Place Stem & Wing Rebar
CON-33360	S5 - K-F1 - K-A1 - Form 25 Stems & Wings	8	04-Apr-28	05-Apr-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Form 25 Stems & Wings
CON-33420	S5 - K-F1 - K-A1 - Place Stem & Wing Concrete	1	06-Apr-28	06-Apr-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Place Stem & Wing Concrete
CON-33460	S5 - K-F1 - K-A1 - Cure Stem & Wing Concrete	7	07-Apr-28	13-Apr-28	5609 - TCD [P]	S5 - K-F1 - K-A1 - Cure Stem & Wing Concrete
CON-33470	S5 - K-F1 - K-A1 - Strip Stem & Wing Forms / Rough Surface Finish	8	14-Apr-28	17-Apr-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Strip Stem & Wing Forms / Rough Surface Finish
CON-33510	S5 - K-F1 - K-A1 - Place Backwall Rebar	1	18-Apr-28	18-Apr-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Place Backwall Rebar
CON-33580	S5 - K-F1 - K-A1 - Form 25 Backwall	1	18-Apr-28	19-Apr-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Form 25 Backwall
CON-33630	S5 - K-F1 - K-A1 - Place Backwall Concrete	1	20-Apr-28	20-Apr-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Place Backwall Concrete
CON-33680	S5 - K-F1 - K-A1 - Cure Backwall Concrete	7	21-Apr-28	27-Apr-28	5609 - TCD [P]	S5 - K-F1 - K-A1 - Cure Backwall Concrete
CON-33690	S5 - K-F1 - K-A1 - Strip Backwall Forms/Clean Bridge Seat / Rough Surface Finish	2	21-Apr-28	24-Apr-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Strip Backwall Forms/Clean Bridge Seat / Rough Surface Finish
CON-33850	S5 - K-F1 - K-A1 - Structure Backfill	4	28-Apr-28	03-May-28	5609 - SWD, Hol	S5 - K-F1 - K-A1 - Structure Backfill
Const | St 5 | Con Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | F & S | Bent K-B2						
26	17-Feb-28	24-Mar-28				
Const | St 5 | Con Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | F & S | Bent K2-B2L						
22	24-Feb-28	24-Mar-28				
CON-33110	S5 - K-F1 - K-B2L - Install CIDH Sheet(s)	4	24-Feb-28	29-Feb-28	5609 - SWD, Hol, TDay, Xmas, W.C. City	S5 - K-F1 - K-B2L - Install CIDH Sheet(s)
CON-33260	S5 - K-F1 - K-B2L - Cure Sheet	7	01-Mar-28	07-Mar-28	5609 - TCD [P]	S5 - K-F1 - K-B2L - Cure Sheet
CON-33280	S5 - K-F1 - K-B2L - Prep Transition Zone/Set Column Cage & Guy	4	01-Mar-28	06-Mar-28	5609 - SWD, Hol, TDay, Xmas, W.C. City	S5 - K-F1 - K-B2L - Prep Transition Zone/Set Column Cage & Guy
CON-33520	S5 - K-F1 - K-B2L - Place Transition Zone Concrete	1	08-Mar-28	08-Mar-28	5609 - SWD, Hol, TDay, Xmas, W.C. City	S5 - K-F1 - K-B2L - Place Transition Zone Concrete
CON-33560	S5 - K-F1 - K-B2L - Cure Transition Zone Concrete	7	09-Mar-28	15-Mar-28	5609 - TCD [P]	S5 - K-F1 - K-B2L - Cure Transition Zone Concrete

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Quantity	Start	Finish	Calendar	
CON-33570	S5 - K-F1 - K-B2L - Form Column	3	09-Mar-28	13-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33560	S5 - K-F1 - K-B2L - Connect Thermal Control System	1	14-Mar-28	14-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33770	S5 - K-F1 - K-B2L - Place Column Concrete	1	16-Mar-28	16-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33750	S5 - K-F1 - K-B2L - Cure Column Concrete	7	17-Mar-28	23-Mar-28	5609 - TCD [P]	
CON-33800	S5 - K-F1 - K-B2L - Strip Column Forms 1 Day Minimum Removal	1	24-Mar-28	24-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 5 | Cen Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | F & S | Bent K2-B2R						
CON-33300	S5 - K-F1 - K-B2R - Install CIDH Shafts	4	17-Feb-28	23-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33480	S5 - K-F1 - K-B2R - Cure Shaft	7	24-Feb-28	01-Mar-28	5609 - TCD [P]	
CON-33450	S5 - K-F1 - K-B2R - Prep Transition Zone/Set Column Cage & Guy	4	24-Feb-28	29-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33710	S5 - K-F1 - K-B2R - Place Transition Zone Concrete	1	02-Mar-28	02-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33730	S5 - K-F1 - K-B2R - Cure Transition Zone Concrete	7	03-Mar-28	09-Mar-28	5609 - TCD [P]	
CON-33740	S5 - K-F1 - K-B2R - Form Column	3	03-Mar-28	07-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33810	S5 - K-F1 - K-B2R - Connect Thermal Control System	1	08-Mar-28	08-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33870	S5 - K-F1 - K-B2R - Place Column Concrete	1	10-Mar-28	10-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33900	S5 - K-F1 - K-B2R - Cure Column Concrete	7	11-Mar-28	17-Mar-28	5609 - TCD [P]	
CON-33910	S5 - K-F1 - K-B2R - Strip Column Forms 1 Day Minimum Removal	1	20-Mar-28	20-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 5 | Cen Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | F & S | Bent K2-B3L						
CON-32320	S5 - K-F1 - K-B3L - Install CIDH Shafts	4	29-Feb-28	05-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32330	S5 - K-F1 - K-B3L - Cure Shaft	7	03-Mar-28	09-Mar-28	5609 - TCD [P]	
CON-32340	S5 - K-F1 - K-B3L - Prep Transition Zone/Set Column Cage & Guy	4	03-Mar-28	08-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32380	S5 - K-F1 - K-B3L - Place Transition Zone Concrete	1	10-Mar-28	10-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32400	S5 - K-F1 - K-B3L - Cure Transition Zone Concrete	7	11-Mar-28	17-Mar-28	5609 - TCD [P]	
CON-32410	S5 - K-F1 - K-B3L - Form Column	3	13-Mar-28	15-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32420	S5 - K-F1 - K-B3L - Connect Thermal Control System	1	16-Mar-28	16-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32460	S5 - K-F1 - K-B3L - Place Column Concrete	1	20-Mar-28	20-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32470	S5 - K-F1 - K-B3L - Cure Column Concrete	7	21-Mar-28	27-Mar-28	5609 - TCD [P]	
CON-32480	S5 - K-F1 - K-B3L - Strip Column Forms 1 Day Minimum Removal	1	28-Mar-28	28-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 5 | Cen Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | F & S | Bent K2-B3R						
CON-32350	S5 - K-F1 - K-B3R - Install CIDH Shafts	4	22-Feb-28	25-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32360	S5 - K-F1 - K-B3R - Cure Shaft	7	26-Feb-28	03-Mar-28	5609 - TCD [P]	
CON-32370	S5 - K-F1 - K-B3R - Prep Transition Zone/Set Column Cage & Guy	4	28-Feb-28	02-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32430	S5 - K-F1 - K-B3R - Place Transition Zone Concrete	1	06-Mar-28	06-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32440	S5 - K-F1 - K-B3R - Cure Transition Zone Concrete	7	07-Mar-28	13-Mar-28	5609 - TCD [P]	
CON-32450	S5 - K-F1 - K-B3R - Form Column	3	07-Mar-28	09-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32490	S5 - K-F1 - K-B3R - Connect Thermal Control System	1	10-Mar-28	10-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32500	S5 - K-F1 - K-B3R - Place Column Concrete	1	14-Mar-28	14-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-32540	S5 - K-F1 - K-B3R - Cure Column Concrete	7	15-Mar-28	21-Mar-28	5609 - TCD [P]	
CON-32550	S5 - K-F1 - K-B3R - Strip Column Forms 1 Day Minimum Removal	1	22-Mar-28	22-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Cen Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | F & S | Abut K-A4						
CON-32880	S5 - K-F1 - K-A4 - Install CIDH Shafts	7	11-Feb-28	22-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33070	S5 - K-F1 - K-A4 - Excavate Footing	4	23-Feb-28	28-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33090	S5 - K-F1 - K-A4 - Cure CIDH	7	23-Feb-28	29-Feb-28	5609 - TCD [P]	
CON-33170	S5 - K-F1 - K-A4 - Prep CIDH For Footing Construction	3	29-Feb-28	02-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33260	S5 - K-F1 - K-A4 - Form Footing/Dowel Template	3	03-Mar-28	07-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33430	S5 - K-F1 - K-A4 - Place Rebar	3	08-Mar-28	10-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33550	S5 - K-F1 - K-A4 - Place Footing Concrete	1	13-Mar-28	13-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33600	S5 - K-F1 - K-A4 - Cure Footing Concrete	7	14-Mar-28	20-Mar-28	5609 - TCD [P]	
CON-33610	S5 - K-F1 - K-A4 - Strip Footing Forms/Dowel Template	1	14-Mar-28	14-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33640	S5 - K-F1 - K-A4 - Blast/Prep For Stems & Wings	1	15-Mar-28	15-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33700	S5 - K-F1 - K-A4 - Form 15 Stems/Wings/Backwall	3	16-Mar-28	20-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33760	S5 - K-F1 - K-A4 - Place Stem & Wing Rebar	3	21-Mar-28	23-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33840	S5 - K-F1 - K-A4 - Form 25 Stems & Wings	2	24-Mar-28	27-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33860	S5 - K-F1 - K-A4 - Place Stem & Wing Concrete	1	28-Mar-28	28-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33890	S5 - K-F1 - K-A4 - Cure Stem & Wing Concrete	7	29-Mar-28	04-Apr-28	5609 - TCD [P]	
CON-33890	S5 - K-F1 - K-A4 - Strip Stem & Wing Forms / Rough Surface Finish	2	05-Apr-28	06-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-33940	S5 - K-F1 - K-A4 - Place Backwall Rebar	1	07-Apr-28	07-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

SKANSKA FLATIRON

ATMP PRELIMINARY CONSTRUCTION SCHEDULE

Update 20-C

Activity ID	Activity Name	Duration	Start	Finish	Calendar	Summary
CON-33950	S5 - K-F1 - K-A4 - Form 23 Backfill	1	10-Apr-28	10-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K-F1 - K-A4 - Form 23 Backfill
CON-33960	S5 - K-F1 - K-A4 - Place Backfill Concrete	1	11-Apr-28	11-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K-F1 - K-A4 - Place Backfill Concrete
CON-33970	S5 - K-F1 - K-A4 - Cure Backfill Concrete	7	12-Apr-28	18-Apr-28	5609 - TCD [P]	S5 - K-F1 - K-A4 - Cure Backfill Concrete
CON-33980	S5 - K-F1 - K-A4 - Strip Backfill Forms/Clean Bridge Seal / Rough Surface Finish	2	12-Apr-28	13-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K-F1 - K-A4 - Strip Backfill Forms/Clean Bridge Seal / Rough Surface Finish
CON-34000	S5 - K-F1 - K-A4 - Structure Backfill	4	19-Apr-28	24-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K-F1 - K-A4 - Structure Backfill
Const | St 5 | Can Access | Seg K | Bridge Sta 59+16 to Sta 59+61 | Sup						
Const | St 5 | Can Access | Seg K | Bridge Sta 59+16 to Sta 59+61 | Sup | FW						
CON-38940	S5 - K-SP1 - FW - Install Grillage/Bents/Bent Caps/Posts	2	15-Apr-28	26-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K-SP1 - FW - Install Grillage/Bents/Bent Caps/Posts
CON-38930	S5 - K-SP2 - FW - Install Grillage/Bents/Bent Caps/Posts NB	1	29-Apr-28	29-Apr-28	5609 - Weekends, TDay, Xmas, WC, Oly	S5 - K-SP2 - FW - Install Grillage/Bents/Bent Caps/Posts NB
CON-37160	S5 - K-SP3 - FW - Install Grillage/Bents/Bent Caps/Posts	2	01-May-28	02-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K-SP3 - FW - Install Grillage/Bents/Bent Caps/Posts
CON-45590	S5 - K-SP2 - FW - Install Grillage/Bents/Bent Caps/Posts SB	1	05-May-28	05-May-28	5609 - Weekends, TDay, Xmas, WC, Oly	S5 - K-SP2 - FW - Install Grillage/Bents/Bent Caps/Posts SB
CON-49151	S5 - K-SP1 - FW - Remove Falsework	2	06-Nov-28	07-Nov-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K-SP1 - FW - Remove Falsework
CON-49161	S5 - K-SP2 - FW - Remove Falsework NB	2	02-Dec-28	03-Dec-28	5609 - Weekends, TDay, Xmas, WC, Oly	S5 - K-SP2 - FW - Remove Falsework NB
CON-49171	S5 - K-SP3 - FW - Remove Falsework	2	04-Dec-28	05-Dec-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K-SP3 - FW - Remove Falsework
CON-49181	S5 - K-SP2 - FW - Remove Falsework SB	2	05-Dec-28	06-Dec-28	5609 - Weekends, TDay, Xmas, WC, Oly	S5 - K-SP2 - FW - Remove Falsework SB
Const | St 5 | Can Access | Seg K | Bridge Sta 59+16 to Sta 59+61 | Sup | Soffit & Stern						
CON-36930	S5 - K-SP1 - S&S - Install Soffit & Safety Rail	4	27-Apr-28	02-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K-SP1 - S&S - Install Soffit & Safety Rail
CON-38440	S5 - K-SP2 - S&S - Install Soffit & Safety Rail - NB	1	30-Apr-28	30-Apr-28	5609 - Weekends, TDay, Xmas, WC, Oly	S5 - K-SP2 - S&S - Install Soffit & Safety Rail - NB
CON-36830	S5 - K-SP1 - S&S - Form Exterior Girder & OH	5	03-May-28	10-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K-SP1 - S&S - Form Exterior Girder & OH
CON-37150	S5 - K-SP3 - S&S - Install Soffit & Safety Rail	5	03-May-28	10-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K-SP3 - S&S - Install Soffit & Safety Rail
CON-51161	S5 - K-SP2 - S&S - Install Soffit & Safety Rail - SB	1	07-May-28	07-May-28	5609 - Weekends, TDay, Xmas, WC, Oly	S5 - K-SP2 - S&S - Install Soffit & Safety Rail - SB
CON-54411	S5 - S&S - Install Elastomeric Bearing Pads @ K-A1 & K-A4	4	08-May-28	11-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - S&S - Install Elastomeric Bearing Pads @ K-A1 & K-A4
CON-37050	S5 - K-SP3 - S&S - Form Exterior Girder & OH	7	11-May-28	19-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K-SP3 - S&S - Form Exterior Girder & OH
CON-38340	S5 - K-SP2 - S&S - Form Exterior Girder & OH	10	22-May-28	05-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K-SP2 - S&S - Form Exterior Girder & OH
CON-36850	S5 - K - S&S - Place Soffit Rebar	8	25-May-28	06-Jun-28	5609 - SWD, Hol	S5 - K - S&S - Place Soffit Rebar
CON-36860	S5 - K - S&S - Place Stern Rebar	6	07-Jun-28	14-Jun-28	5609 - SWD, Hol	S5 - K - S&S - Place Stern Rebar
CON-36870	S5 - K - S&S - Install PT Ducts	6	13-Jun-28	19-Jun-28	5609 - SWD, Hol	S5 - K - S&S - Install PT Ducts
CON-38840	S5 - K - S&S - Form Interior Girder & Walkways	18	20-Jun-28	12-Jul-28	5609 - SWD, Hol	S5 - K - S&S - Form Interior Girder & Walkways
CON-35910	S5 - K - S&S - Form Diaphragms & Blockouts	7	13-Jul-28	21-Jul-28	5609 - SWD, Hol	S5 - K - S&S - Form Diaphragms & Blockouts
CON-36880	S5 - K - S&S - Place Soffit & Stern Concrete	2	07-Aug-28	08-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K - S&S - Place Soffit & Stern Concrete
CON-36890	S5 - K - S&S - Cure Soffit & Stern Concrete	7	09-Aug-28	15-Aug-28	5609 - TCD [P]	S5 - K - S&S - Cure Soffit & Stern Concrete
CON-38900	S5 - K - S&S - Strip Interior Girder Forms & Walkways	10	09-Aug-28	22-Aug-28	5609 - SWD, Hol	S5 - K - S&S - Strip Interior Girder Forms & Walkways
CON-36920	S5 - K - S&S - Strip Diaphragms	5	23-Aug-28	29-Aug-28	5609 - SWD, Hol	S5 - K - S&S - Strip Diaphragms
Const | St 5 | Can Access | Seg K | Bridge Sta 59+16 to Sta 59+61 | Sup | Deck						
CON-35950	S5 - K - DECK - Form Lost Deck	11	30-Aug-28	14-Sep-28	5609 - SWD, Hol	S5 - K - DECK - Form Lost Deck
CON-35970	S5 - K - DECK - Form EOD	6	15-Sep-28	22-Sep-28	5609 - SWD, Hol	S5 - K - DECK - Form EOD
CON-38960	S5 - K - DECK - Install Scaffolding Rails & Run-Offs	7	18-Sep-28	26-Sep-28	5609 - SWC, Hol	S5 - K - DECK - Install Scaffolding Rails & Run-Offs
CON-38960	S5 - K - DECK - Place Deck Rebar	6	25-Sep-28	02-Oct-28	5609 - SWD, Hol	S5 - K - DECK - Place Deck Rebar
CON-36990	S5 - K - DECK - Set-up Bridge Finishing Machine & Work Bridges	2	27-Sep-28	28-Sep-28	5609 - SWD, Hol	S5 - K - DECK - Set-up Bridge Finishing Machine & Work Bridges
CON-37020	S5 - K - DECK - Dry-run Bridge Finishing Machine	1	03-Oct-28	03-Oct-28	5609 - SWD, Hol	S5 - K - DECK - Dry-run Bridge Finishing Machine
CON-37000	S5 - K - DECK - Place Bridge Deck Concrete	1	04-Oct-28	04-Oct-28	5609 - SWD, Hol	S5 - K - DECK - Place Bridge Deck Concrete
CON-37010	S5 - K - DECK - Cure Bridge Deck Concrete	7	05-Oct-28	11-Oct-28	5609 - TCD [P]	S5 - K - DECK - Cure Bridge Deck Concrete
CON-37030	S5 - K - DECK - Strip Scaffolding Rails & EOD	3	12-Oct-28	16-Oct-28	5609 - SWD, Hol	S5 - K - DECK - Strip Scaffolding Rails & EOD
CON-46280	S5 - K - DECK - Strip Exterior Girder & OH Forms	6	17-Oct-28	24-Oct-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - K - DECK - Strip Exterior Girder & OH Forms
Const | St 5 | Can Access | Seg K | Bridge Sta 59+16 to Sta 59+61 | Sup | PT						
CON-46290	S5 - K - PT - Install PT Slabs	4	19-Oct-28	24-Oct-28	5609 - SWD, Hol	S5 - K - PT - Install PT Slabs
CON-46280	S5 - K - PT - Stress & Lock-off	3	25-Oct-28	27-Oct-28	5609 - SWD, Hol	S5 - K - PT - Stress & Lock-off
CON-46270	S5 - K - PT - Grout PT Ducts	2	30-Oct-28	31-Oct-28	5609 - SWD, Hol	S5 - K - PT - Grout PT Ducts
CON-46290	S5 - K - PT - RIPS PT Blockouts	3	01-Nov-28	03-Nov-28	5609 - SWD, Hol	S5 - K - PT - RIPS PT Blockouts
Const | St 5 | Can Access | Seg K | Bridge Sta 59+16 to Sta 59+61 | Finishes						
CON-36790	S5 - Br K - FRP Approach Slab K-A1	5	20-Jul-28	26-Jul-28	5609 - SWD, Hol	S5 - Br K - FRP Approach Slab K-A1
CON-36800	S5 - Br K - FRP Approach Slab K-A4	5	01-Sep-28	30-Sep-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - Br K - FRP Approach Slab K-A4
CON-35380	S5 - Br K - FRP Bridge Rail	11	01-Dec-28	18-Dec-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - Br K - FRP Bridge Rail
CON-35590	S5 - Br K - Install Bridge Soffit Lighting	8	11-Dec-28	19-Dec-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	S5 - Br K - Install Bridge Soffit Lighting
CON-35470	S5 - Br K - Prep Deck & Perform Profile Grating	5	19-Dec-28	27-Dec-28	5609 - SWD, Hol	S5 - Br K - Prep Deck & Perform Profile Grating
CON-35500	S5 - Br K - Perform Profile Grating	5	28-Dec-28	05-Jan-29	5609 - SWD, Hol	S5 - Br K - Perform Profile Grating
CON-35630	S5 - Br K - Install Joint Assembly - Abut K-A1	5	05-Jan-29	12-Jan-29	5609 - SWD, Hol	S5 - Br K - Install Joint Assembly - Abut K-A1

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Page 94 of 118

ATMP Rdwy Imp | Baseline Schedule | UP20 - Partial Relief of
 FIFA FW Over Sep / Cent

Activity ID	Activity Name	mainline	Start	Finish	Calendar
CON-35580	S5 - Br K - Install Joint Assembly - Abut K-4		5 08-Jan-29	12-Jan-29	5609 - SWD, Hol
Const | St 5 | Cen Access | Seg K | Retain Fill Sta 59+61 to Sta 61+06			119 14-Aug-28	23-Oct-28	
Const | St 5 | Cen Access | Seg K | Ret Fill Sta 59+61 to Sta 61+06 | Wall K-4			21 14-Aug-28	23-Oct-28	
Const | St 5 | Cen Access | Seg K | Ret Fill Sta 59+61 to Sta 61+06 | Wall K-4 | CIDH			18 14-Aug-28	23-Oct-28	
CON-35730	S5 - Wall K-4 - Prep Work Pad for CIDH / Remove Ex Pavements		2 14-Aug-28	17-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35740	S5 - Wall K-4 - Install CIDH Shafts		9 16-Aug-28	26-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35750	S5 - Wall K-4 - Final Cure CIDH Shafts		7 29-Aug-28	05-Sep-28	5609 - TCD (P)
Const | St 5 | Cen Access | Seg K | Ret Fill Sta 59+61 to Sta 61+06 | Wall K-4 | Section 1			21 05-Sep-28	25-Sep-28	
CON-35760	S5 - Wall K-4 - Excavate/Sandblast/Fine Grd for Footing Section 1		7 05-May-28	16-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35780	S5 - Wall K-4 - FRP Footing Section 1		2 17-May-28	18-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35800	S5 - Wall K-4 - FRP Panels Section 1		8 25-May-28	02-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35820	S5 - Wall K-4 - Cure Section 1		1 03-Jun-28	03-Jun-28	5609 - TCD (P)
CON-35840	S5 - Wall K-4 - Strip Panels Section 1		2 05-Jun-28	06-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 5 | Cen Access | Seg K | Ret Fill Sta 59+61 to Sta 61+06 | Wall K-4 | Section 2			18 17-May-28	13-Jun-28	
CON-35770	S5 - Wall K-4 - Over Excavate for Footing Section 2		2 17-May-28	18-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49541	S5 - Wall K-4 - Place Soil Corrosion for Footing Section 2		3 19-May-28	23-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49551	S5 - Wall K-4 - Excavate/Keyway/Fine Grd for Footing Section 2		1 24-May-28	24-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35790	S5 - Wall K-4 - FRP Footing Section 2		4 25-May-28	31-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35810	S5 - Wall K-4 - FRP Panels Section 2		4 05-Jun-28	05-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35830	S5 - Wall K-4 - Cure Section 2		1 09-Jun-28	09-Jun-28	5609 - TCD (P)
CON-35850	S5 - Wall K-4 - Strip Panels Section 2		2 12-Jun-28	13-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 5 | Cen Access | Seg K | Ret Fill Sta 59+61 to Sta 61+06 | Wall K-4 | Finishes			30 14-Jun-28	06-Jul-28	
CON-49561	S5 - Wall K-4 - Final Visitor Cure Panels		6 14-Jun-28	19-Jun-28	5609 - TCD (P)
CON-35860	S5 - Wall K-4 - Surface Finish Front Face / Install Arch Finishes		5 20-Jun-28	06-Jul-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 5 | Cen Access | Seg K | Ret Fill Sta 59+61 to Sta 61+06 | Rdwy Section			3 14-Jun-28	06-Jul-28	
CON-35810	S5 - K 59+61 to 61+06 - Install Retaining Barrier		4 09-Aug-28	14-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35800	S5 - K 59+61 to 61+06 - Place, Contour & Grade Wall BP & Ramp Embankment		10 15-Aug-28	31-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35820	S5 - K 59+61 to 61+06 - Grade for Curb & Gutter		3 01-Sep-28	05-Sep-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-37060	S5 - K 59+61 to 61+06 - Install Curb & Gutter		4 07-Sep-28	12-Sep-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-37070	S5 - K 59+61 to 61+06 - Install Street Lighting Conduit & Foundations		4 13-Sep-28	18-Sep-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35860	S5 - K 59+61 to 61+06 - Fine Grade Subgrade		3 19-Sep-28	21-Sep-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35840	S5 - K 59+61 to 61+06 - Place & Fine Grade Agg Base		3 22-Sep-28	26-Sep-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35850	S5 - K 59+61 to 61+06 - Place - HMA Base Course Pavement		1 27-Sep-28	27-Sep-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35830	S5 - K 59+61 to 61+06 - FRP Traffic Barrier		3 28-Sep-28	02-Oct-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 5 | Cen Access | Seg K | At Grade Sta 61+06 to Sta 65+48			57 18-Aug-28	29-Nov-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-53841	S5 - K 61+06 to 65+48 - Remove Existing Sign Bridge @ Seg K/S Gore		4 18-Aug-28	21-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-37970	S5 - K 61+06 to 65+48 - Remove Pavements & Hardscapes		4 22-Aug-28	25-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-37980	S5 - K 61+06 to 65+48 - Perform Roadway Excavation		4 28-Aug-28	31-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-37990	S5 - K 61+06 to 65+48 - Install Storm Drainage & Appurtenances		20 31-Sep-28	29-Sep-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38000	S5 - K 61+06 to 65+48 - Grade for Curb & Gutter		8 02-Oct-28	11-Oct-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38010	S5 - K 61+06 to 65+48 - Place Curb & Gutter		8 12-Oct-28	23-Oct-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49871	S5 - K 61+06 to 65+48 - Install Street Lighting Conduit & Foundations		4 24-Oct-28	27-Oct-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38020	S5 - K 61+06 to 65+48 - Prep Subgrade & Place Agg Base		14 30-Oct-28	27-Nov-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38030	S5 - K 61+06 to 65+48 - Place - HMA Base Course Ind Temp Seg 3		1 26-Nov-28	26-Nov-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 5 | Cen Access | Seg P			372 25-Oct-27	12-Dec-28	
Const | St 5 | Cen Access | Seg P | Roadway Finish			130 09-Oct-28	03-Nov-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35700	S5 - P - Install Bridge P Soil Lighting		6 09-Oct-28	16-Oct-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-36550	S5 - P 25+06 to 27+03 - P1 - Place Traffic Barrier		6 20-Oct-28	27-Oct-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-36670	S5 - P - Install Street Lighting Fixtures & Appurtenances		5 30-Oct-28	03-Nov-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-34290	S5 - Seg P - Install Tday Signage, Striping & Misc Finishes In Stage 5 Config		5 28-Apr-29	02-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 5 | Cen Access | Seg P | At Grade Sta 10+00 to Sta 18+85 - Phase 1			59 01-Feb-29	25-Apr-29	5609 - SWD, Hol
CON-38050	S5 - P 10+00 to 18+85 - P1 - Remove Pavements & Hardscapes		8 01-Feb-29	12-Feb-29	5609 - SWD, Hol
CON-38060	S5 - P 10+00 to 18+85 - P1 - Perform Roadway Excavation		8 13-Feb-29	23-Feb-29	5609 - SWD, Hol
CON-38070	S5 - P 10+00 to 18+85 - P1 - Install Storm Drainage & Appurtenances		12 26-Feb-29	16-Mar-29	5609 - SWD, Hol
CON-38080	S5 - P 10+00 to 18+85 - P1 - Install Curb & Gutter		12 19-Mar-29	03-Apr-29	5609 - SWD, Hol
CON-38091	S5 - P 10+00 to 18+85 - P1 - Install Street Light Conduit & Fretline		3 04-Apr-29	06-Apr-29	5609 - SWD, Hol

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

SKANSKA FLATIRON

ATMP PRELIMINARY CONSTRUCTION SCHEDULE

Update 20-C

Activity ID	Activity Name	maining	Start	Finish	Calendar	
CON-38100	SS - P 10+00 to 18+85 - P1 - Prep Subgrade & Place Agg Base		10 09-Apr-29	20-Apr-29	5609 - SWD, Hol	
CON-38110	SS - P 10+00 to 18+85 - P1 - Place HMA Base Course Pavement		3 23-Apr-29	25-Apr-29	5609 - SWD, Hol	
Const | St 5 | Con Access | Seg P | Retained Fill Sta 18+85 to Sta 22+20		128	26-Apr-28	24-Oct-28	5609 - SWD, Hol	
CON-36601	SS - P 18+85 to 22+20 - Install Retaining Barrier		5 28-Apr-28	05-May-28	5609 - SWD, Hol	
CON-36570	SS - P 18+85 to 22+20 - Place, Contour & Grade W/ SF & Ramp Embankment		4 08-May-28	11-May-28	5609 - SWD, Hol	
CON-36580	SS - P 18+85 to 22+20 - Install Storm Drainage & Appurtenances		5 12-May-28	18-May-28	5609 - SWD, Hol	
CON-36590	SS - P 18+85 to 22+20 - Install North Curb & Gutter		5 15-May-28	31-May-28	5609 - SWD, Hol	
CON-36800	SS - P 18+85 to 22+20 - Install Street Light Conduit & Poles		3 01-Jun-28	05-Jun-28	5609 - SWD, Hol	
CON-36630	SS - P 18+85 to 22+20 - Prep Subgrade & Place Agg Base		7 13-Oct-28	23-Oct-28	5609 - SWD, Hol	
CON-36620	SS - P 18+85 to 22+20 - Place HMA Base Course Pavement		1 24-Oct-28	24-Oct-28	5609 - SWD, Hol	
Const | St 5 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08		231	26-Nov-27	27-Oct-28		
Const | St 5 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | Fndtn & Sub			26-Nov-27	11-May-23		
Const | St 5 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | P & S | Bent P-A1			03-Mar-24	06-May-28		
CON-32550	SS - P-F1 - P-A1 - Install CIDH Shafts		7 03-Mar-28	13-Mar-28	5609 - SWD, Hol	
CON-32740	SS - P-F1 - P-A1 - Excavate Footing		4 14-Mar-28	17-Mar-28	5609 - SWD, Hol	
CON-32750	SS - P-F1 - P-A1 - Cure CIDH		7 14-Mar-28	20-Mar-28	5609 - TCD [P]	
CON-32820	SS - P-F1 - P-A1 - Prep CIDH For Footing Construction		3 20-Mar-28	22-Mar-28	5609 - SWD, Hol	
CON-32920	SS - P-F1 - P-A1 - Form Footing/Dowel Template		3 23-Mar-28	27-Mar-28	5609 - SWD, Hol	
CON-33080	SS - P-F1 - P-A1 - Place Rebar		3 28-Mar-28	30-Mar-28	5609 - SWD, Hol	
CON-33190	SS - P-F1 - P-A1 - Place Footing Concrete		1 31-Mar-28	31-Mar-28	5609 - SWD, Hol	
CON-33240	SS - P-F1 - P-A1 - Cure Footing Concrete		7 01-Apr-28	07-Apr-28	5609 - TCD [P]	
CON-33250	SS - P-F1 - P-A1 - Strip Footing Forms/Dowel Template		1 03-Apr-28	03-Apr-28	5609 - SWD, Hol	
CON-33310	SS - P-F1 - P-A1 - Blast/Prep For Stems & Wings		1 04-Apr-28	04-Apr-28	5609 - SWD, Hol	
CON-33370	SS - P-F1 - P-A1 - Form 1S Stems/Wings/Backwall		3 05-Apr-28	27-Apr-28	5609 - SWD, Hol	
CON-33440	SS - P-F1 - P-A1 - Place Stem & Wing Rebar		3 10-Apr-28	12-Apr-28	5609 - SWD, Hol	
CON-33530	SS - P-F1 - P-A1 - Form 2S Stems & Wings		2 13-Apr-28	14-Apr-28	5609 - SWD, Hol	
CON-33620	SS - P-F1 - P-A1 - Place Stem & Wing Concrete		1 17-Apr-28	17-Apr-28	5609 - SWD, Hol	
CON-33860	SS - P-F1 - P-A1 - Cure Stem & Wing Concrete		7 18-Apr-28	24-Apr-28	5609 - TCD [P]	
CON-33670	SS - P-F1 - P-A1 - Strip Stem & Wing Forms / Rough Surface Finish		2 19-Apr-28	20-Apr-28	5609 - SWD, Hol	
CON-33720	SS - P-F1 - P-A1 - Place Backwall Rebar		1 21-Apr-28	21-Apr-28	5609 - SWD, Hol	
CON-33750	SS - P-F1 - P-A1 - Form 2S Backwall		1 24-Apr-28	24-Apr-28	5609 - SWD, Hol	
CON-33780	SS - P-F1 - P-A1 - Place Backwall Concrete		1 25-Apr-28	25-Apr-28	5609 - SWD, Hol	
CON-33820	SS - P-F1 - P-A1 - Cure Backwall Concrete		7 26-Apr-28	02-May-28	5609 - TCD [P]	
CON-33830	SS - P-F1 - P-A1 - Strip Backwall Forms/Clean Bridge Seat / Rough Surface Finish		2 28-Apr-28	27-Apr-28	5609 - SWD, Hol	
CON-33830	SS - P-F1 - P-A1 - Structure Backfill		4 03-May-28	08-May-28	5609 - SWD, Hol	
Const | St 5 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | F & S | Bent P-B2		34	07-Apr-28	7-Apr-28		
Const | St 5 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | F & S | Bent P-B2L		22	2-Mar-28	17-Apr-28		
CON-34550	SS - P-F1 - P-B2L - Install CIDH Shafts		4 17-Mar-28	22-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Jy	
CON-34560	SS - P-F1 - P-B2L - Cure Shaft		7 23-Mar-28	29-Mar-28	5609 - TCD [P]	
CON-34570	SS - P-F1 - P-B2L - Prep Transition Zone/Set Column Caps & Guy		4 23-Mar-28	28-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Jy	
CON-34580	SS - P-F1 - P-B2L - Place Transition Zone Concrete		1 30-Mar-28	30-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Jy	
CON-34590	SS - P-F1 - P-B2L - Cure Transition Zone Concrete		7 31-Mar-28	05-Apr-28	5609 - TCD [P]	
CON-34600	SS - P-F1 - P-B2L - Form Column		3 31-Mar-28	04-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Jy	
CON-34640	SS - P-F1 - P-B2L - Connect Thermal Control System		1 05-Apr-28	05-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Jy	
CON-34610	SS - P-F1 - P-B2L - Place Column Concrete		1 07-Apr-28	07-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Jy	
CON-34620	SS - P-F1 - P-B2L - Cure Column Concrete		7 08-Apr-28	14-Apr-28	5609 - TCD [P]	
CON-34630	SS - P-F1 - P-B2L - Strip Column Forms / Day Minimum Removal		1 17-Apr-28	17-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Jy	
Const | St 5 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | F & S | Bent P-B2M		22	13-Mar-28	11-Apr-28		
CON-34650	SS - P-F1 - P-B2M - Install CIDH Shafts		4 13-Mar-28	16-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Jy	
CON-34660	SS - P-F1 - P-B2M - Cure Shaft		7 17-Mar-28	23-Mar-28	5609 - TCD [P]	
CON-34670	SS - P-F1 - P-B2M - Prep Transition Zone/Set Column Caps & Guy		4 17-Mar-28	22-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Jy	
CON-34680	SS - P-F1 - P-B2M - Place Transition Zone Concrete		1 24-Mar-28	24-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Jy	
CON-34690	SS - P-F1 - P-B2M - Cure Transition Zone Concrete		7 25-Mar-28	31-Mar-28	5609 - TCD [P]	
CON-34700	SS - P-F1 - P-B2M - Form Column		3 27-Mar-28	29-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Jy	
CON-34740	SS - P-F1 - P-B2M - Connect Thermal Control System		1 30-Mar-28	30-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Jy	
CON-34710	SS - P-F1 - P-B2M - Place Column Concrete		1 03-Apr-28	03-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Jy	
CON-34720	SS - P-F1 - P-B2M - Cure Column Concrete		7 04-Apr-28	10-Apr-28	5609 - TCD [P]	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Page 96 of 118

ATMP Rdwy Imp | Baseline Schedule | UP20 - Partial Relief of
FIFA FW Over Sep / Cent

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-34730	SS - P-F1 - P-B2M1 - Strip Column Forms 1 Day Minimum Removal	1	11-Apr-28	11-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | SI 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | F & S | Bent P-B2M2						
CON-34760	SS - P-F1 - P-B2M2 - Install CIDI Shaft(s)	4	07-Mar-28	10-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-34760	SS - P-F1 - P-B2M2 - Cure Shaft	7	11-Mar-28	17-Mar-28	5609 - TCD [P]	
CON-34770	SS - P-F1 - P-B2M2 - Prep Transition Zone/Set Column Cage & Guy	4	13-Mar-28	16-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-34780	SS - P-F1 - P-B2M2 - Place Transition Zone Concrete	1	20-Mar-28	20-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-34780	SS - P-F1 - P-B2M2 - Cure Transition Zone Concrete	7	21-Mar-28	27-Mar-28	5609 - TCD [P]	
CON-34800	SS - P-F1 - P-B2M2 - Form Column	3	21-Mar-28	23-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-34840	SS - P-F1 - P-B2M2 - Connect Thermal Control System	1	24-Mar-28	24-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-34810	SS - P-F1 - P-B2M2 - Place Column Concrete	1	24-Mar-28	24-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-34820	SS - P-F1 - P-B2M2 - Cure Column Concrete	7	25-Mar-28	01-Apr-28	5609 - TCD [P]	
CON-34830	SS - P-F1 - P-B2M2 - Strip Column Forms 1 Day Minimum Removal	1	05-Apr-28	05-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | SI 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | F & S | Bent P-B2R						
CON-34850	SS - P-F1 - P-B2R - Install CIDI Shaft(s)	4	01-Mar-28	04-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-34860	SS - P-F1 - P-B2R - Cure Shaft	7	07-Mar-28	13-Mar-28	5609 - TCD [P]	
CON-34870	SS - P-F1 - P-B2R - Prep Transition Zone/Set Column Cage & Guy	4	07-Mar-28	10-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-34880	SS - P-F1 - P-B2R - Place Transition Zone Concrete	1	14-Mar-28	14-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-34890	SS - P-F1 - P-B2R - Cure Transition Zone Concrete	7	15-Mar-28	21-Mar-28	5609 - TCD [P]	
CON-34900	SS - P-F1 - P-B2R - Form Column	3	15-Mar-28	17-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-34940	SS - P-F1 - P-B2R - Connect Thermal Control System	1	20-Mar-28	20-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-34910	SS - P-F1 - P-B2R - Place Column Concrete	1	22-Mar-28	22-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-34920	SS - P-F1 - P-B2R - Cure Column Concrete	7	23-Mar-28	29-Mar-28	5609 - TCD [P]	
CON-34930	SS - P-F1 - P-B2R - Strip Column Forms 1 Day Minimum Removal	1	30-Mar-28	30-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | SI 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | F & S | Bent P-B3						
Const | SI 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | F & S | Bent P-B3M1						
CON-35050	SS - P-F1 - P-B3M1 - Install CIDI Shaft(s)	4	21-Mar-28	24-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-35060	SS - P-F1 - P-B3M1 - Cure Shaft	7	25-Mar-28	31-Mar-28	5609 - TCD [P]	
CON-35070	SS - P-F1 - P-B3M1 - Prep Transition Zone/Set Column Cage & Guy	4	27-Mar-28	30-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-35080	SS - P-F1 - P-B3M1 - Place Transition Zone Concrete	1	03-Apr-28	03-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-35090	SS - P-F1 - P-B3M1 - Cure Transition Zone Concrete	7	04-Apr-28	10-Apr-28	5609 - TCD [P]	
CON-35100	SS - P-F1 - P-B3M1 - Form Column	3	04-Apr-28	06-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-35140	SS - P-F1 - P-B3M1 - Connect Thermal Control System	1	07-Apr-28	07-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-35110	SS - P-F1 - P-B3M1 - Place Column Concrete	1	11-Apr-28	11-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-35120	SS - P-F1 - P-B3M1 - Cure Column Concrete	7	12-Apr-28	18-Apr-28	5609 - TCD [P]	
CON-35130	SS - P-F1 - P-B3M1 - Strip Column Forms 1 Day Minimum Removal	1	19-Apr-28	19-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | SI 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | F & S | Bent P-B3M2						
CON-35150	SS - P-F1 - P-B3M2 - Install CIDI Shaft(s)	4	15-Mar-28	19-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-35160	SS - P-F1 - P-B3M2 - Cure Shaft	7	21-Mar-28	27-Mar-28	5609 - TCD [P]	
CON-35170	SS - P-F1 - P-B3M2 - Prep Transition Zone/Set Column Cage & Guy	4	21-Mar-28	24-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-35180	SS - P-F1 - P-B3M2 - Place Transition Zone Concrete	1	28-Mar-28	28-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-35190	SS - P-F1 - P-B3M2 - Cure Transition Zone Concrete	7	29-Mar-28	04-Apr-28	5609 - TCD [P]	
CON-35200	SS - P-F1 - P-B3M2 - Form Column	3	29-Mar-28	31-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-35240	SS - P-F1 - P-B3M2 - Connect Thermal Control System	1	03-Apr-28	03-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-35210	SS - P-F1 - P-B3M2 - Place Column Concrete	1	05-Apr-28	05-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-35220	SS - P-F1 - P-B3M2 - Cure Column Concrete	7	06-Apr-28	12-Apr-28	5609 - TCD [P]	
CON-35290	SS - P-F1 - P-B3M2 - Strip Column Forms 1 Day Minimum Removal	1	13-Apr-28	13-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | SI 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | F & S | Bent P-B3M3						
CON-45710	SS - P-F1 - P-B3M3 - Install CIDI Shaft(s)	4	09-Mar-28	14-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-45720	SS - P-F1 - P-B3M3 - Cure Shaft	7	15-Mar-28	21-Mar-28	5609 - TCD [P]	
CON-45730	SS - P-F1 - P-B3M3 - Prep Transition Zone/Set Column Cage & Guy	4	15-Mar-28	20-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-45740	SS - P-F1 - P-B3M3 - Place Transition Zone Concrete	1	22-Mar-28	22-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-45750	SS - P-F1 - P-B3M3 - Cure Transition Zone Concrete	7	23-Mar-28	29-Mar-28	5609 - TCD [P]	
CON-45760	SS - P-F1 - P-B3M3 - Form Column	3	23-Mar-28	27-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-45800	SS - P-F1 - P-B3M3 - Connect Thermal Control System	1	28-Mar-28	28-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-45770	SS - P-F1 - P-B3M3 - Place Column Concrete	1	30-Mar-28	30-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-45780	SS - P-F1 - P-B3M3 - Cure Column Concrete	7	31-Mar-28	06-Apr-28	5609 - TCD [P]	
CON-45790	SS - P-F1 - P-B3M3 - Strip Column Forms 1 Day Minimum Removal	1	07-Apr-28	07-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

ATMP Rdwy Imp | Baseline Schedule | UP20 - Partial Relief of
FIFA FW Over Sep / Cent

Activity ID	Activity Name	Duration	Start	Finish	Calendar
CON-37430	SS - P - SAS - Strip Interior Gider Forms & Walkways	8	09-Aug-28	18-Aug-28	5609 - SWD, Hol
CON-37450	SS - P - SAS - Strip Diaphragms	8	09-Aug-28	15-Aug-28	5609 - SWD, Hol
Const | St 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | Sup | Deck		27	14-Aug-28	10-Sep-28	
CON-37480	SS - P - DECK - Form Last Deck	8	11-Aug-28	23-Aug-28	5609 - SWD, Hol
CON-37500	SS - P - DECK - Form EDO	5	23-Aug-28	28-Aug-28	5609 - SWD, Hol
CON-37490	SS - P - DECK - Place Deck Rebar	7	24-Aug-28	01-Sep-28	5609 - SWD, Hol
CON-37510	SS - P - DECK - Install Scaffolding & Run-Offs	6	24-Aug-28	31-Aug-28	5609 - SWD, Hol
CON-37520	SS - P - DECK - Setup Bridge Finishing Machine & Work Bridges	3	21-Sep-28	06-Sep-28	5609 - SWD, Hol
CON-37550	SS - P - DECK - Dryrun Bridge Finishing Machine	1	07-Sep-28	07-Sep-28	5609 - SWD, Hol
CON-37530	SS - P - DECK - Place Bridge Deck Concrete	1	08-Sep-28	08-Sep-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-37540	SS - P - DECK - Cure Bridge Deck Concrete	7	09-Sep-28	15-Sep-28	5609 - TCD (PI)
CON-37560	SS - P - DECK - Strip Scaffolding & EDO	3	11-Sep-28	13-Sep-28	5609 - SWD, Hol
CON-37570	SS - P - DECK - Strip C/J Bulkheads @ Interface to Gate	2	12-Sep-28	13-Sep-28	5609 - SWD, Hol
CON-45840	SS - P - DECK - Strip Exterior Gider & DH Forms	6	12-Sep-28	19-Sep-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | Sup | PT & BW		27	14-Sep-28	10-Oct-28	
CON-45810	SS - P - PT - Install PT Strands	4	14-Sep-28	19-Sep-28	5609 - SWD, Hol
CON-45820	SS - P - PT - Stress & Lockoff	3	20-Sep-28	23-Sep-28	5609 - SWD, Hol
CON-45830	SS - P - PT - Grout PT Ducts	2	25-Sep-28	26-Sep-28	5609 - SWD, Hol
CON-45850	SS - P - PT - F/P/S PT Blockouts	3	27-Sep-28	29-Sep-28	5609 - SWD, Hol
CON-49191	SS - P - PT - Place Backwall Rebar P-A1	1	02-Oct-28	02-Oct-28	5609 - SWD, Hol
CON-49201	SS - P - PT - Form 2S Backwall P-A1	1	03-Oct-28	03-Oct-28	5609 - SWD, Hol
CON-49241	SS - P - PT - Place Backwall Rebar P-A4	1	03-Oct-28	03-Oct-28	5609 - SWD, Hol
CON-49211	SS - P - PT - Place Backwall Concrete P-A1	1	04-Oct-28	04-Oct-28	5609 - SWD, Hol
CON-49251	SS - P - PT - Form 2S Backwall P-A4	1	04-Oct-28	04-Oct-28	5609 - SWD, Hol
CON-49221	SS - P - PT - Cure Backwall Concrete P-A1	7	05-Oct-28	11-Oct-28	5609 - TCD (PI)
CON-49261	SS - P - PT - Place Backwall Concrete P-A4	1	05-Oct-28	05-Oct-28	5609 - SWD, Hol
CON-49271	SS - P - PT - Cure Backwall Concrete P-A4	7	05-Oct-28	12-Oct-28	5609 - TCD (PI)
CON-49231	SS - P - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal P-A1	1	12-Oct-28	12-Oct-28	5609 - SWD, Hol
CON-49251	SS - P - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal P-A4	1	12-Oct-28	12-Oct-28	5609 - SWD, Hol
Const | St 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | Finishes		18	14-Sep-28	10-Oct-28	
CON-35810	SS - Br P - FRP Approach Slab P-A1 - Phase 1	5	12-May-28	18-May-28	5609 - SWD, Hol
CON-35820	SS - Br P - FRP Approach Slab P-A4 - Phase 1	5	23-May-28	30-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35990	SS - Br P - FRP Bridge Rail North Side	4	09-Oct-28	12-Oct-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35860	SS - Br P - Prep Deck & Profilegraph	8	13-Oct-28	19-Oct-28	5609 - SWD, Hol
CON-35970	SS - Br P - Perform Profile Grinding	3	20-Oct-28	24-Oct-28	5609 - SWD, Hol
CON-35880	SS - Br P - Install Joint Assembly Abut P-A1 - Phase 1	3	25-Oct-28	27-Oct-28	5609 - SWD, Hol
CON-35890	SS - Br P - Install Joint Assembly Abut P-A4 - Phase 1	3	25-Oct-28	27-Oct-28	5609 - SWD, Hol
Const | St 5 | Cen Access | Seg P | Retained Fill Sta 25+08 to Sta 27+03 - Phase 1		24	28-Oct-27	19-Oct-28	
Const | St 5 | Cen Access | Seg P | Ret Fill Sta 25+08 to Sta 27+03 | Wall P-3 - Phase 1		18	28-Oct-27	14-Nov-27	
Const | St 5 | Cen Access | Seg P | Ret Fill Sta 25+08 to Sta 27+03 | Wall P-3 | CIDH - Phase 1		18	28-Oct-27	19-Nov-27	
CON-36040	SS - Wall P-3 - Prep Work Pad for CIDH / Remove Ex Pymnts	3	28-Oct-27	01-Nov-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49571	SS - Wall P-3 - Install Secant Pile	2	02-Nov-27	03-Nov-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49581	SS - Wall P-3 - Cure Secant Pile Shafts	4	04-Nov-27	07-Nov-27	5609 - TCD (PI)
CON-36050	SS - Wall P-3 - Install CIDH Shafts	4	09-Nov-27	12-Nov-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-36060	SS - Wall P-3 - Final Cure CIDH Shafts	7	13-Nov-27	19-Nov-27	5609 - TCD (PI)
Const | St 5 | Cen Access | Seg P | Ret Fill Sta 25+08 to Sta 27+03 | Rdwy Section - Phase 1		14	28-Oct-27	10-Nov-27	
CON-36651	SS - P 25+08 to 27+03 - P1 - Install Retaining Barrier	8	12-May-28	18-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-36640	SS - P 25+08 to 27+03 - P1 - Place, Contour & Grade Vial BF & Ramp Embankment	2	19-May-28	22-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-36660	SS - P 25+08 to 27+03 - P1 - Install Storm Drainage & Appurtenances	10	23-May-28	06-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-36701	SS - P 25+08 to 27+03 - P1 - Install Street Light Conduit & Fittings	3	07-Jun-28	09-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-36680	SS - P 25+08 to 27+03 - P1 - Prep Subgrade & Place Agg Base	4	13-Oct-28	18-Oct-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-36690	SS - P 25+08 to 27+03 - P1 - Place HMA Base Course Pavement	1	19-Oct-28	19-Oct-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 5 | Cen Access | Seg P | At Grade Sta 27+03 to Sta 30+32 - Phase 1		47	18-May-28	07-Sep-28	
CON-38120	SS - P 27+03 to 30+32 - P1 - Remove Pavements & Haulscapes	4	19-May-28	24-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38130	SS - P 27+03 to 30+32 - P1 - Perform Roadway Excavation	4	25-May-28	31-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38140	SS - P 27+03 to 30+32 - P1 - Install Storm Drainage & Appurtenances	20	01-Jun-28	10-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38150	SS - P 27+03 to 30+32 - P1 - Grade for Curb & Gutter	4	11-Aug-28	16-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

SKANSKA FLATIRON

ATMP PRELIMINARY CONSTRUCTION SCHEDULE

Update 20-C

Activity ID	Activity Name	Planning	Start	Finish	Calendar
CON-38160	SS - P 27+03 to 30+32 - P1 - Install Curb & Gutter	4	17-Aug-28	22-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-49891	SS - P 27+03 to 30+32 - P1 - Install Street Light Conduit & Endins	2	23-Aug-28	24-Aug-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-38170	SS - P 27+03 to 30+32 - P1 - Prep Subgrade & Place Agg Base	6	25-Aug-28	01-Sep-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-38180	SS - P 27+03 to 30+32 - P1 - Place HMA Base Course Pavement	3	05-Sep-28	07-Sep-28	5609 - SWD, Hol, TDay, Xmas, WC, City
Const | St 5 | Cen Access | Seg N		90	11-Feb-28	16-Feb-28	
Const | St 5 | Cen Access | Seg N | Ret Cut Sta 15+00 to Sta 17+00 | Wall N-2		50	15-Feb-28	16-Feb-28	
Const | St 5 | Cen Access | Seg N | Ret Cut Sta 15+00 to Sta 17+00 | Wall N-2 | Str Wall					5609 - SWD, Hol, TDay, Xmas, WC, City
CON-35400	SS - Wall N-2 - Excavate for First Level Tiebacks	3	11-Feb-28	15-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-35410	SS - Wall N-2 - Install First Level Tiebacks & Grout	5	16-Feb-28	23-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36170	SS - Wall N-2 - Install First Level Rebar & Shotcrete	5	24-Feb-28	21-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36180	SS - Wall N-2 - Stress & Test First Level Tiebacks	2	02-Mar-28	03-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-35190	SS - Wall N-2 - Excavate for Second Level Tiebacks	3	05-Mar-28	08-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-35200	SS - Wall N-2 - Install Second Level Tiebacks & Grout	5	08-Mar-28	15-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36210	SS - Wall N-2 - Install Second Level Rebar & Shotcrete	5	16-Mar-28	22-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36220	SS - Wall N-2 - Stress & Test Second Level Tiebacks	2	23-Mar-28	24-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36230	SS - Wall N-2 - Excavate for Third Level Tiebacks	3	27-Mar-28	29-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36240	SS - Wall N-2 - Install Third Level Tiebacks & Grout	5	30-Mar-28	05-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36250	SS - Wall N-2 - Install Third Level Rebar & Shotcrete	6	06-Apr-28	12-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36260	SS - Wall N-2 - Stress & Test Third Level Tiebacks	2	13-Apr-28	14-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36270	SS - Wall N-2 - Excavate for Fourth Level Tiebacks	3	17-Apr-28	19-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36280	SS - Wall N-2 - Install Fourth Level Tiebacks & Grout	5	20-Apr-28	25-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36290	SS - Wall N-2 - Install Fourth Level Rebar & Shotcrete	5	27-Apr-28	03-May-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36300	SS - Wall N-2 - Stress & Test Fourth Level Tiebacks	2	04-May-28	05-May-28	5609 - SWD, Hol, TDay, Xmas, WC, City
Const | St 5 | Cen Access | Seg N | Ret Cut Sta 15+00 to Sta 17+00 | Wall N-2 | Finish		10	04-May-28	13-Jun-28	
CON-36310	SS - Wall N-2 - Place Wall Rebar	9	08-May-28	18-May-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36320	SS - Wall N-2 - Form Wall Face & Bulkhead	9	08-May-28	18-May-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36330	SS - Wall N-2 - Place Wall Concrete	3	22-May-28	24-May-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36340	SS - Wall N-2 - Cure Wall Concrete	7	25-May-28	31-May-28	5609 - 7CD (P)
CON-36350	SS - Wall N-2 - Strip Wall Forms	3	01-Jun-28	05-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36360	SS - Wall N-2 - FRP Curing	6	05-Jun-28	12-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-36370	SS - Wall N-2 - Surface Finish / Apply Conc Coatings	6	13-Jun-28	19-Jun-28	5609 - SWD, Hol, TDay, Xmas, WC, City
Const | Stage 6		38	01-Dec-27	10-Apr-30	
Const | St 6 | Sep Access		52	01-Mar-29	25-May-29	5609 - SWD, Hol, TDay, Xmas, WC, City
Const | St 6 | Sep Access | MOT		2	01-Mar-29	02-Mar-29	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-39970	SS - Establish MOT Measures to Construct D At Grade Sta 9+30 to 13+98	2	01-Mar-29	02-Mar-29	5609 - SWD, Hol, TDay, Xmas, WC, City
Const | St 6 | Sep Access | Sep D		60	05-Mar-29	25-May-29	5609 - SWD, Hol, TDay, Xmas, WC, City
Const | St 6 | Sep Access | Sep D | At Grade Sta 9+30 to Sta 13+98		50	05-Mar-29	25-May-29	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-39980	SS - D 9+30 to 13+98 - Remove Pavements & Hardscapes	4	05-Mar-29	08-Mar-29	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-39990	SS - D 9+30 to 13+98 - Perform Roadway Excavation	4	09-Mar-29	14-Mar-29	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-39910	SS - D 9+30 to 13+98 - Install Storm Drainage & Appurtenances	20	15-Mar-29	11-Apr-29	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-39920	SS - D 9+30 to 13+98 - Grade for Flatwork & Barriers	7	12-Apr-29	20-Apr-29	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-39930	SS - D 9+30 to 13+98 - Place Flatwork & Barriers	7	23-Apr-29	01-May-29	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-39940	SS - D 9+30 to 13+98 - Prep Subgrade & Place Agg Base	6	02-May-29	09-May-29	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-39950	SS - D 9+30 to 13+98 - Place Pavement	7	10-May-29	11-May-29	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-39960	SS - D 9+30 to 13+98 - Place Final Pavement Markings & Signs	10	14-May-29	25-May-29	5609 - SWD, Hol, TDay, Xmas, WC, City
Const | St 6 | Cen Access		58	01-Dec-27	10-Apr-30	
Const | St 6 | Cen Access | MOT		18	18-Oct-29	10-Apr-30	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-50271	SS - Establish MOT to Open Seg NE w/ Temp Gorn	2	18-Oct-29	19-Oct-29	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-49991	SS - Open Seg P East of Bridge in St 3 Config	2	26-Jan-30	29-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-49981	SS - Open Seg PM Gorn St 6 Config	2	25-Jan-30	30-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-50481	SS - Establish MOT NB Sep to Close NE to Construct Gorn	2	31-Jan-30	01-Feb-30	5609 - SWD, Hol, TDay, Xmas, WC, City
CON-50491	SS - Open Seg NE in Stage 8 Configuration	2	08-Apr-30	10-Apr-30	5609 - SWD, Hol, TDay, Xmas, WC, City
Const | St 6 | Cen Access | Demo		208	03-May-29	11-Jun-30	
CON-32300	SS - Demo Existing CTA Loop Ramp to NB Separators - Enabling Work for Seg NE	30	03-May-29	14-Jun-29	5609 - SWD, Hol
Const | St 6 | Cen Access | Demo | Ex World Way So Bridge		27	31-Jan-30	11-Mar-30	
CON-38450	SS - Demo Ex World Way South Over Sep - Remove Light Fixtures & Metal Rail	4	31-Jan-30	05-Feb-30	5609 - SWD, Hol, TDay, Xmas, WC, City

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Page 100 of 118

ATMP Rdwy Imp | Baseline Schedule | UP20 - Partial Relief of
FIFA FW Over Sep / Cent

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-51511	S6 - Demo Ex World Way South Over Sep - Demo Span over NB Sep	2	09-Feb-30	10-Feb-30	5609 - Weekends, TDay, Xmas, WC, Oly	
CON-51521	S6 - Demo Ex World Way South Over Sep - Demo East Abut	3	11-Feb-30	13-Feb-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51531	S6 - Demo Ex World Way South Over Sep - Demo Span over SB Sep	2	23-Feb-30	24-Feb-30	5609 - Weekends, TDay, Xmas, WC, Oly	
CON-51541	S6 - Demo Ex World Way South Over Sep - Demo Median Piers	5	25-Feb-30	01-Mar-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51551	S6 - Demo Ex World Way South Over Sep - Demo Remaining Spans West Side	6	04-Mar-30	11-Mar-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Cen Access | Demo | NB Sep to EB Cent Ramp & Pymnt						
CON-39340	S6 - Demo NB Sep to EB Cent Ramp & Pymnt - Demo Ramp & Walls NB Sep	6	22-Oct-29	31-Oct-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-39350	S6 - Demo NB Sep to EB Cent Ramp & Pymnt - Demo Hoak Ramp Approach & Wall	5	01-Nov-29	07-Nov-29	5609 - SWD, Hol	
CON-39360	S6 - Demo NB Sep to EB Cent Ramp & Pymnt - Remove EB Century Remaining Pymnt & Wall	8	31-Jan-30	11-Feb-30	5609 - SWD, Hol	
CON-39370	S6 - Demo NB Sep to EB Cent Ramp & Pymnt - Complete Rough Emb Grading Along AQA Wall	10	12-Feb-30	26-Feb-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Cen Access | Seg M						
Const | St 6 | Cen Access | Seg M | Roadway Finishes						
CON-39270	S6 - Br M/P - Install OHS & ITS Gantry	2	16-Jan-30	17-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-39320	S6 - Br M/P - Install OH Wayfinding Signs	2	18-Jan-30	21-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-39000	S6 - Seg M - Install Rdwy Signage, Striping & Misc Finishes	8	22-Jan-30	28-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30						
CON-39370	S6 - M-F1 - M-B1 - Install CIDH Shaft(s)	4	24-May-29	30-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-39490	S6 - M-F1 - M-B1 - Cure Shaft	7	31-May-29	06-Jun-29	5609 - TCD [P]	
CON-82071	S6 - M-F1 - M-B1 - Excavate for Isolation Casing & Tilt Slip Casing	5	31-May-29	06-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38510	S6 - M-F1 - M-B1 - Prep Transition Zone/Sat Column Caga & Guy	4	07-Jun-29	12-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38540	S6 - M-F1 - M-B1 - Place Transition Zone Concrete	1	13-Jun-29	13-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38550	S6 - M-F1 - M-B1 - Cure Transition Zone Concrete	7	14-Jun-29	20-Jun-29	5609 - TCD [P]	
CON-38560	S6 - M-F1 - M-B1 - Form Column	3	14-Jun-29	18-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38570	S6 - M-F1 - M-B1 - Connect Thermal Control System	1	19-Jun-29	19-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38610	S6 - M-F1 - M-B1 - Place Column Concrete	1	21-Jun-29	21-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38620	S6 - M-F1 - M-B1 - Cure Column Concrete	7	22-Jun-29	28-Jun-29	5609 - TCD [P]	
CON-38630	S6 - M-F1 - M-B1 - Strip Column Forms 1 Day Minimum Removal	1	22-Jun-29	22-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-62081	S6 - M-F1 - M-B1 - Install Isolation Casing & Backfill	4	25-Jun-29	28-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | M-F1 | F & S | Bent M-B2						
CON-38500	S6 - M-F1 - M-B2 - Install CIDH Shaft(s)	4	03-May-29	08-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38520	S6 - M-F1 - M-B2 - Cure Shaft	7	09-May-29	15-May-29	5609 - TCD [P]	
CON-82091	S6 - M-F1 - M-B2 - Excavate for Isolation Casing & Tilt Slip Casing	5	09-May-29	15-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38530	S6 - M-F1 - M-B2 - Prep Transition Zone/Sat Column Caga & Guy	4	18-May-29	21-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38580	S6 - M-F1 - M-B2 - Place Transition Zone Concrete	1	22-May-29	22-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38590	S6 - M-F1 - M-B2 - Cure Transition Zone Concrete	7	23-May-29	29-May-29	5609 - TCD [P]	
CON-38600	S6 - M-F1 - M-B2 - Form Column	3	23-May-29	25-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38640	S6 - M-F1 - M-B2 - Connect Thermal Control System	1	29-May-29	29-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38650	S6 - M-F1 - M-B2 - Place Column Concrete	1	30-May-29	30-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38660	S6 - M-F1 - M-B2 - Cure Column Concrete	7	31-May-29	06-Jun-29	5609 - TCD [P]	
CON-38670	S6 - M-F1 - M-B2 - Strip Column Forms 1 Day Minimum Removal	1	31-May-29	31-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-82101	S6 - M-F1 - M-B2 - Install Isolation Casing & Backfill	4	01-Jun-29	06-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | M-F1 | Sup | FW						
CON-38680	S6 - M-F1 - FW - Install Grillage/Bents/Bent Caps/Posts/Slings	3	29-Jun-29	03-Jul-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49341	S6 - M-F1 - FW - Remove Falsework	3	27-Nov-29	29-Nov-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | M-F1 | Sup | Soff & Stems						
CON-38690	S6 - M-F1 - S&S - Install Soffit & Safety Rail	6	05-Jul-29	12-Jul-29	5609 - SWD, Hol	
CON-38700	S6 - M-F1 - S&S - Form Exterior Girder & DH	6	13-Jul-29	24-Jul-29	5609 - SWD, Hol	
CON-38710	S6 - M-F1 - S&S - Place Soffit Rebar	5	19-Jul-29	25-Jul-29	5609 - SWD, Hol	
CON-38720	S6 - M-F1 - S&S - Place Stem Rebar	5	26-Jul-29	01-Aug-29	5609 - SWD, Hol	
CON-38730	S6 - M-F1 - S&S - Install PT Ducts	4	01-Aug-29	05-Aug-29	5609 - SWD, Hol	
CON-38740	S6 - M-F1 - S&S - Form Interior Girder & Walkways	9	07-Aug-29	17-Aug-29	5609 - SWD, Hol	
CON-38750	S6 - M-F1 - S&S - Form Diaphragms & Blockouts	2	20-Aug-29	21-Aug-29	5609 - SWD, Hol	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

SKANSKA | FLATIRON

ATMP PRELIMINARY CONSTRUCTION SCHEDULE

Update 20-C

Activity ID	Activity Name	Duration	Start	Finish	Calendar	Resources
CON-38760	S6 - M-F1 - S&S - Place Soffit & Stem Concrete	2	22-Aug-29	23-Aug-29	5609 - SWD, Hol	S6 - M-F1 - S&S - Plac
CON-38770	S6 - M-F1 - S&S - Cure Soffit & Stem Concrete	7	24-Aug-29	30-Aug-29	5609 - TCD [P]	S6 - M-F1 - S&S - Cu
CON-38780	S6 - M-F1 - S&S - Strip Interior Girder Forms & Walkways	4	24-Aug-29	29-Aug-29	5609 - SWD, Hol	S6 - M-F1 - S&S - Str
CON-38790	S6 - M-F1 - S&S - Strip Diaphragms	2	30-Aug-29	31-Aug-29	5609 - SWD, Hol	S6 - M-F1 - S&S - Str
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | M-F1 | Sup | Deck		25	04-Sep-29	09-Oct-29		▼▼ 08-Oct-29, Const |
CON-38810	S6 - M-F1 - DECK - Form Last Deck	5	04-Sep-29	10-Sep-29	5609 - SWD, Hol	S6 - M-F1 - DECK - F
CON-38820	S6 - M-F1 - DECK - Form EOD	3	11-Sep-29	13-Sep-29	5609 - SWD, Hol	S6 - M-F1 - DECK - F
CON-38830	S6 - M-F1 - DECK - Install Soreed Rafts & Run-Offs	2	12-Sep-29	14-Sep-29	5609 - SWD, Hol	S6 - M-F1 - DECK - F
CON-38840	S6 - M-F1 - DECK - Place Deck Rebar	5	14-Sep-29	20-Sep-29	5609 - SWD, Hol	S6 - M-F1 - DECK - F
CON-38850	S6 - M-F1 - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	17-Sep-29	17-Sep-29	5609 - SWD, Hol	S6 - M-F1 - DECK - F
CON-38860	S6 - M-F1 - DECK - Dry-run Bridge Finishing Machine	1	21-Sep-29	21-Sep-29	5609 - SWD, Hol	S6 - M-F1 - DECK - F
CON-38870	S6 - M-F1 - DECK - Place Bridge Deck Concrete	1	24-Sep-29	24-Sep-29	5609 - SWD, Hol	S6 - M-F1 - DECK - F
CON-38890	S6 - M-F1 - DECK - Cure Bridge Deck Concrete	7	25-Sep-29	01-Oct-29	5609 - TCD [P]	S6 - M-F1 - DECK - F
CON-38900	S6 - M-F1 - DECK - Strip Soreed Rafts & EOD	1	02-Oct-29	02-Oct-29	5609 - SWD, Hol	S6 - M-F1 - DECK - F
CON-38960	S6 - M-F1 - DECK - Strip Exterior Gutter & OH Forms	3	03-Oct-29	06-Oct-29	5609 - SWD, Hol	S6 - M-F1 - DECK - F
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | M-F1 | Sup | PT		12	03-Oct-29	15-Oct-29		▼▼ 16-Oct-29, Const |
CON-38920	S6 - M-F1 - PT - Install PT Strands	4	03-Oct-29	08-Oct-29	5609 - SWD, Hol	S6 - M-F1 - PT - Ins
CON-38940	S6 - M-F1 - PT - Stress & Lock-off	3	09-Oct-29	11-Oct-29	5609 - SWD, Hol	S6 - M-F1 - PT - Ins
CON-38950	S6 - M-F1 - PT - Grout PT Ducts	2	12-Oct-29	13-Oct-29	5609 - SWD, Hol	S6 - M-F1 - PT - Ins
CON-38980	S6 - M-F1 - PT - Finish PT Deck Area	3	16-Oct-29	19-Oct-29	5609 - SWD, Hol	S6 - M-F1 - PT - Ins
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | L-F2 | F & S | Bent L-B6		26	22-Dec-27	28-Jan-28		▼▼ 28-Jan-28, Const |
CON-39420	S6 - L-F2 - L-B6 - Install CIDH Shafts	4	22-Dec-27	04-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B6 - Ins
CON-39430	S6 - L-F2 - L-B6 - Cure Shaft	7	05-Jan-28	11-Jan-28	5609 - TCD [P]	S6 - L-F2 - L-B6 - Ins
CON-39440	S6 - L-F2 - L-B6 - Prep Transition Zone/Set Column Cage & Guy	4	05-Jan-28	10-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B6 - Prep
CON-39450	S6 - L-F2 - L-B6 - Place Transition Zone Concrete	1	12-Jan-28	12-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B6 - Plac
CON-39460	S6 - L-F2 - L-B6 - Cure Transition Zone Concrete	7	13-Jan-28	19-Jan-28	5609 - TCD [P]	S6 - L-F2 - L-B6 - Plac
CON-39470	S6 - L-F2 - L-B6 - Form Column	3	13-Jan-28	17-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B6 - Form
CON-39510	S6 - L-F2 - L-B6 - Connect Thermal Control System	1	18-Jan-28	18-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B6 - Conn
CON-39480	S6 - L-F2 - L-B6 - Place Column Concrete	1	10-Jan-28	20-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B6 - Plac
CON-39490	S6 - L-F2 - L-B6 - Cure Column Concrete	7	21-Jan-28	27-Jan-28	5609 - TCD [P]	S6 - L-F2 - L-B6 - Plac
CON-39500	S6 - L-F2 - L-B6 - Strip Column Forms 1 Day Minimum Removal	1	28-Jan-28	28-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B6 - Str
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | L-F2 | F & S | Bent L-B7		26	29-Dec-27	04-Feb-28		▼▼ 29-Dec-27, Const |
CON-39520	S6 - L-F2 - L-B7 - Install CIDH Shafts	4	15-Dec-27	21-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B7 - Ins
CON-39530	S6 - L-F2 - L-B7 - Cure Shaft	7	22-Dec-27	28-Dec-27	5609 - TCD [P]	S6 - L-F2 - L-B7 - Ins
CON-39540	S6 - L-F2 - L-B7 - Prep Transition Zone/Set Column Cage & Guy	4	22-Dec-27	04-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B7 - Prep
CON-39550	S6 - L-F2 - L-B7 - Place Transition Zone Concrete	1	05-Jan-28	05-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B7 - Plac
CON-39560	S6 - L-F2 - L-B7 - Cure Transition Zone Concrete	7	06-Jan-28	12-Jan-28	5609 - TCD [P]	S6 - L-F2 - L-B7 - Plac
CON-39570	S6 - L-F2 - L-B7 - Form Column	3	06-Jan-28	10-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B7 - Form
CON-39610	S6 - L-F2 - L-B7 - Connect Thermal Control System	1	11-Jan-28	11-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B7 - Conn
CON-39580	S6 - L-F2 - L-B7 - Place Column Concrete	1	13-Jan-28	13-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B7 - Plac
CON-39590	S6 - L-F2 - L-B7 - Cure Column Concrete	7	14-Jan-28	20-Jan-28	5609 - TCD [P]	S6 - L-F2 - L-B7 - Plac
CON-39600	S6 - L-F2 - L-B7 - Strip Column Forms 1 Day Minimum Removal	1	21-Jan-28	21-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B7 - Str
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | L-F2 | F & S | Bent L-B8		24	09-Dec-27	14-Jan-28		▼▼ 14-Jan-28, Const |
CON-39620	S6 - L-F2 - L-B8 - Install CIDH Shafts	4	08-Dec-27	14-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B8 - Ins
CON-39630	S6 - L-F2 - L-B8 - Cure Shaft	7	15-Dec-27	21-Dec-27	5609 - TCD [P]	S6 - L-F2 - L-B8 - Ins
CON-39640	S6 - L-F2 - L-B8 - Prep Transition Zone/Set Column Cage & Guy	4	15-Dec-27	21-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B8 - Prep
CON-39650	S6 - L-F2 - L-B8 - Place Transition Zone Concrete	1	22-Dec-27	22-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B8 - Plac
CON-39660	S6 - L-F2 - L-B8 - Cure Transition Zone Concrete	7	23-Dec-27	29-Dec-27	5609 - TCD [P]	S6 - L-F2 - L-B8 - Plac
CON-39670	S6 - L-F2 - L-B8 - Form Column	3	23-Dec-27	04-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B8 - Form
CON-39710	S6 - L-F2 - L-B8 - Connect Thermal Control System	1	05-Jan-28	05-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B8 - Conn
CON-39680	S6 - L-F2 - L-B8 - Place Column Concrete	1	06-Jan-28	06-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B8 - Plac
CON-39690	S6 - L-F2 - L-B8 - Cure Column Concrete	7	07-Jan-28	13-Jan-28	5609 - TCD [P]	S6 - L-F2 - L-B8 - Plac
CON-39700	S6 - L-F2 - L-B8 - Strip Column Forms 1 Day Minimum Removal	1	14-Jan-28	14-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B8 - Str
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | L-F2 | F & S | Bent L-B9		19	01-Dec-27	04-Jan-28		▼▼ 03-Jan-28, Const |
CON-39720	S6 - L-F2 - L-B9 - Install CIDH Shafts	4	01-Dec-27	07-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oty	S6 - L-F2 - L-B9 - Ins

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar	
CON-39730	S6 - L-F2 - L-69 - Cure Shell		7 08-Dec-27	14-Dec-27	5609 - TCD [P]	
CON-39740	S6 - L-F2 - L-69 - Prep Transition Zone/Set Column Cage & Guy		4 08-Dec-27	14-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-39750	S6 - L-F2 - L-69 - Place Transition Zone Concrete		1 15-Dec-27	15-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-39760	S6 - L-F2 - L-69 - Cure Transition Zone Concrete		7 18-Dec-27	22-Dec-27	5609 - TCD [P]	
CON-39770	S6 - L-F2 - L-69 - Form Column		3 18-Dec-27	21-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-39810	S6 - L-F2 - L-69 - Connect Thermal Control System		1 22-Dec-27	22-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-39780	S6 - L-F2 - L-69 - Place Column Concrete		1 23-Dec-27	23-Dec-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-39790	S6 - L-F2 - L-69 - Cure Column Concrete		7 24-Dec-27	30-Dec-27	5609 - TCD [P]	
CON-39800	S6 - L-F2 - L-69 - Strip Column Forms 1 Day Minimum Removal		1 03-Jan-28	03-Jan-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Con Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | L-F2 | Sup						
CON-39850	S6 - L-F2 - FW - Install Gages/Bents/Bent Caps/Post/Strangers		3 31-Jan-28	09-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49351	S6 - L-F2 - FW - Remove Falsework		3 27-Nov-29	29-Nov-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Con Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | L-F2 | Sup | Seff & Stm						
CON-39070	S6 - L-F2 - S-65 - Install Seff & Safety Rail		8 03-Feb-28	10-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-39080	S6 - L-F2 - S-65 - Form Exterior Girder & Ch		10 11-Feb-28	25-Feb-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-39100	S6 - L-F2 - S-65 - Place Seff Rear		5 17-Feb-28	24-Feb-28	5609 - SWD, Hol	
CON-39110	S6 - L-F2 - S-65 - Place Stem Rebar		5 25-Feb-28	03-Mar-28	5609 - SWD, Hol	
CON-39120	S6 - L-F2 - S-65 - Install PT Ducts		4 02-Mar-28	07-Mar-28	5609 - SWD, Hol	
CON-39090	S6 - L-F2 - S-65 - Form Interior Girder & Walkways		7 08-Mar-28	16-Mar-28	5609 - SWD, Hol	
CON-39160	S6 - L-F2 - S-65 - Form Diaphragms & Blockouts		2 17-Mar-28	20-Mar-28	5609 - SWD, Hol	
CON-39130	S6 - L-F2 - S-65 - Place Seff & Stem Concrete		2 21-Mar-28	22-Mar-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-39140	S6 - L-F2 - S-65 - Cure Seff & Stem Concrete		7 23-Mar-28	29-Mar-28	5609 - TCD [P]	
CON-39150	S6 - L-F2 - S-65 - Strip Interior Girder Forms & Walkways		3 23-Mar-28	27-Mar-28	5609 - SWD, Hol	
CON-39170	S6 - L-F2 - S-65 - Strip Diaphragms		2 28-Mar-28	29-Mar-28	5609 - SWD, Hol	
Const | St 6 | Con Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | L-F2 | Sup | Deck						
CON-39180	S6 - L-F2 - DECK - Form Lost Deck		6 30-Mar-28	05-Apr-28	5609 - SWD, Hol	
CON-39200	S6 - L-F2 - DECK - Form EOD		3 06-Apr-28	10-Apr-28	5609 - SWD, Hol	
CON-39210	S6 - L-F2 - DECK - Install Scaffolding & Run-Outs		3 07-Apr-28	11-Apr-28	5609 - SWD, Hol	
CON-39190	S6 - L-F2 - DECK - Place Deck Rebar		6 11-Apr-28	17-Apr-28	5609 - SWD, Hol	
CON-39220	S6 - L-F2 - DECK - Setup Bridge Finishing Machine & Work Bridges		1 12-Apr-28	13-Apr-28	5609 - SWD, Hol	
CON-39250	S6 - L-F2 - DECK - Dryrun Bridge Finishing Machine		1 18-Apr-28	18-Apr-28	5609 - SWD, Hol	
CON-39230	S6 - L-F2 - DECK - Place Bridge Deck Concrete		1 18-Apr-28	18-Apr-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-39240	S6 - L-F2 - DECK - Cure Bridge Deck Concrete		7 20-Apr-28	25-Apr-28	5609 - TCD [P]	
CON-39260	S6 - L-F2 - DECK - Strip Scaffolding & EOD		1 27-Apr-28	27-Apr-28	5609 - SWD, Hol	
CON-39310	S6 - L-F2 - DECK - Strip Exterior Girder & Ch Forms		4 28-Apr-28	03-May-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Con Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | L-F2 | Sup | PT						
CON-39280	S6 - L-F2 - PT - Install PT Strands		2 02-May-28	03-May-28	5609 - SWD, Hol	
CON-39290	S6 - L-F2 - PT - Stress & Lockoff		3 04-May-28	08-May-28	5609 - SWD, Hol	
CON-39300	S6 - L-F2 - PT - Grout PT Ducts		2 09-May-28	10-May-28	5609 - SWD, Hol	
CON-40000	S6 - L-F2 - PT - FRP/PT Blockouts		3 11-May-28	15-May-28	5609 - SWD, Hol	
Const | St 6 | Con Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | Hinges						
Const | St 6 | Con Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | Hinges | P-F1/M-F1						
CON-39930	S6 - P-F1/M-F1 - FRP Hinge Lower Seal		10 19-Oct-29	01-Nov-29	5609 - SWD, Hol	
CON-39970	S6 - P-F1/M-F1 - FRP Hinge Upper Seal		10 32-Nov-29	16-Nov-29	5609 - SWD, Hol	
CON-39980	S6 - P-F1/M-F1 - Cure Hinges		7 17-Nov-29	23-Nov-29	5609 - TCD [P]	
Const | St 6 | Con Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | Hinges | M-F1/L-F2						
CON-39050	S6 - M-F1/L-F2 - FRP Hinge Lower Seal		10 19-Oct-29	01-Nov-29	5609 - SWD, Hol	
CON-39030	S6 - M-F1/L-F2 - FRP Hinge Upper Seal		10 02-Nov-29	16-Nov-29	5609 - SWD, Hol	
CON-39040	S6 - M-F1/L-F2 - Cure Hinges		10 17-Nov-29	26-Nov-29	5609 - TCD [P]	
Const | St 6 | Con Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | Finishes						
CON-39870	S6 - Br P - FRP Bridge Rail South Side		4 30-Nov-29	05-Dec-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-46240	S6 - Br P - FRP Bridge Rail Bridge 3 Median Grn		3 11-Jan-30	15-Jan-30	5609 - SWD, Hol	
CON-46570	S6 - Br P - Prep Deck & Profilegraph		2 16-Jan-30	17-Jan-30	5609 - SWD, Hol	
CON-46710	S6 - Br P - Perform Profile Grinding		2 18-Jan-30	21-Jan-30	5609 - SWD, Hol	
CON-46750	S6 - Br P - Install Joint Assembly - Hinge P-F1/M-F1		3 22-Jan-30	24-Jan-30	5609 - SWD, Hol	
CON-46760	S6 - Br P - Install Joint Assembly - Hinge M-F1/L-F2		3 22-Jan-30	24-Jan-30	5609 - SWD, Hol	

Activity ID	Activity Name	maining	Start	Finish	Calendar
Const | St 6 | Cen Access | Seg N		284	14-Dec-28	20-Feb-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Cen Access | Seg N | Roadway Finishes		16	30-Jan-30	20-Feb-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-34310	S6 - Seg N - Construct Final Roadway Finishes	15	30-Jan-30	20-Feb-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Cen Access | Seg N | Retained Cut Sta 15+00 to Sta 17+00		20	11-Dec-28	17-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Cen Access | Seg N | Ret Cut Sta 15+00 to Sta 17+00 | Rdwy Section		20	11-Dec-28	17-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35720	S6 - N 15+00 to 17+00 - Install Drainage Pipes & Appurtenances	5	11-Dec-28	16-Dec-28	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35730	S6 - N 15+00 to 17+00 - Install Drainage Boxes & Appurtenances	10	14-Dec-28	08-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35770	S6 - N 15+00 to 17+00 - Fine Grade Subgrade	2	09-Jan-29	10-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35740	S6 - N 15+00 to 17+00 - FRP Traffic Barrier	2	11-Jan-29	12-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-36750	S6 - N 15+00 to 17+00 - Place & Fine Grade Agg Base	2	15-Jan-29	16-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-36790	S6 - N 15+00 to 17+00 - Place HMA Pavement	1	17-Jan-29	17-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Cen Access | Seg N | At Grade Sta 17+00 to Sta 23+90		35	28-Nov-29	25-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38270	S6 - N 17+00 to 23+90 - Perform Roadway Excavation	4	28-Nov-29	03-Dec-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38280	S6 - N 17+00 to 23+90 - Install Storm Drainage & Appurtenances	10	04-Dec-29	19-Dec-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38290	S6 - N 17+00 to 23+90 - Grade for Pathwork & Barriers	9	20-Dec-29	11-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38300	S6 - N 17+00 to 23+90 - Place Pathwork & Barriers	9	20-Dec-29	11-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38310	S6 - N 17+00 to 23+90 - Prep Subgrade & Place Agg Base	11	14-Jan-30	25-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38320	S6 - N 17+00 to 23+90 - Place Pavement	1	25-Jan-30	25-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Cen Access | Seg NE		182	07-Aug-29	08-Apr-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Cen Access | Seg NE | At Grade Sta 10+00 to Sta 18+00		43	07-Aug-29	05-Oct-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38900	S6 - NE Sta 10+00 to Sta 18+00 - Perform Rdwy Excavation	10	07-Aug-29	20-Aug-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38940	S6 - NE Sta 10+00 to Sta 18+00 - Install Storm Drainage & Appurtenances	13	21-Aug-29	07-Sep-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-38990	S6 - NE Sta 10+00 to Sta 18+00 - Prep Subgrade & Place Agg Base	8	10-Sep-29	18-Sep-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-39020	S6 - NE Sta 10+00 to Sta 18+00 - Place Curb & Gutter	5	20-Sep-29	27-Sep-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-51881	S6 - NE Sta 10+00 to Sta 18+00 - Install Street Lighting Foundations	4	28-Sep-29	03-Oct-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-39010	S6 - NE Sta 10+00 to Sta 18+00 - Place Base Course ACP Inc Temp Pwmt	2	04-Oct-29	05-Oct-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Cen Access | Seg NE | At Grade Sta 18+00 to Sep Tie In		27	14-Feb-30	25-Mar-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-39920	S6 - NE Sta 18+00 to Sep Tie In - Demo Temp Pwmt & Prep Subgrade	5	14-Feb-30	21-Feb-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-39930	S6 - NE Sta 18+00 to Sep Tie In - Install Storm Drainage & Appurtenances	5	22-Feb-30	28-Feb-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-39940	S6 - NE Sta 18+00 to Sep Tie In - Place Agg Base & Finesgrade	5	01-Mar-30	09-Mar-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-39960	S6 - NE Sta 18+00 to Sep Tie In - Place Curb & Gutter	5	11-Mar-30	18-Mar-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-61891	S6 - NE Sta 18+00 to Sep Tie In - Install Street Lighting Foundations	4	19-Mar-30	22-Mar-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-39950	S6 - NE Sta 18+00 to Sep Tie In - Place Pavement	1	23-Mar-30	25-Mar-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Cen Access | Seg NE | Roadway Finishes		114	08-Oct-29	08-Apr-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-40150	S6 - Seg NE - Install Street Lighting Poles & Fixtures - Phase 1	9	08-Oct-29	10-Oct-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-40160	S6 - Seg NE - Install Roadway Finishes in Temp Condition	5	11-Oct-29	17-Oct-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-40170	S6 - Seg NE - Install Street Lighting Poles & Fixtures - Phase 2	3	26-Mar-30	28-Mar-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-40390	S6 - Seg NE - Mill & Overlay, Place ACP Wearing Course	2	28-Mar-30	01-Apr-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-39980	S6 - NE - Install Signing, Striping, Mix Finishes in St 6 Configuration	5	02-Apr-30	08-Apr-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Cen Access | Seg P		189	03-May-29	14-Jun-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Cen Access | Seg P | Roadway Finishes		120	28-Jun-29	07-Jul-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-50001	S6 - Seg P - Install Street Light Fixtures & Appurtenances Sta 10+00 to Sta 31+90	9	28-Jun-29	11-Jul-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-50041	S6 - Seg P - Install OHS & ITS Gantry East of Bridge	5	12-Jul-29	18-Jul-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-50011	S6 - Br P - FRP Approach Slab PA1 - Phase 2	5	01-Nov-29	07-Nov-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-50021	S6 - Seg P - Sta 25+08 to 26+25 - Place Traffic Barrier	8	09-Nov-29	26-Nov-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49991	S6 - Seg P - Install OHS & ITS Gantry West of Bridge	5	27-Nov-29	03-Dec-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-50051	S6 - Seg P - Install OH Wayfinding Signs	5	04-Dec-29	11-Dec-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49981	S6 - Seg P - Place HMA Wearing Course Sta 10+00 to Sta 31+90	5	12-Dec-29	19-Dec-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49871	S6 - Seg P - Install FINAL Rdwy Signage, Striping & Misc Finishes	5	20-Dec-29	07-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Cen Access | Seg P | At Grade Sta 10+00 to Sta 18+85 - Phase 2		39	03-May-29	27-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49971	S6 - P 10+00 to 18+85 - P2 - Remove Pavements & Hardscapes	4	03-May-29	08-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49911	S6 - P 10+00 to 18+85 - P2 - Perform Roadway Excavation	3	09-May-29	11-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49981	S6 - P 10+00 to 18+85 - P2 - Install Storm Drainage & Appurtenances	10	14-May-29	25-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49921	S6 - P 10+00 to 18+85 - P2 - Install Curb & Gutter	8	29-May-29	07-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49931	S6 - P 10+00 to 18+85 - P2 - Install Street Light Conduit & Fixtures	5	08-Jun-29	14-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49941	S6 - P 10+00 to 18+85 - P2 - Prep Subgrade & Place Agg Base	4	15-Jun-29	20-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar
CON-49951	SG - P-10-00 to 18+65 - P2 - Place PMA River Course Pavement		3/25-Jun-29	27-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | P-F1 Gore			138/18-May-29	14-Jun-30	
Const | St 6 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | P-F1 Gore | Endtoss & Sub			20/18-May-29	15-Jun-29	
Const | St 6 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | P-F1 Gore | F & S | Bent P-83L			20/18-May-29	15-Jun-29	
CON-49989	SG - P-F1 - P-83L - Install CIH Shaft(s)		4/18-May-29	23-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49990	SG - P-F1 - P-83L - Cure Shaft		7/24-May-29	30-May-29	5609 - TCD [F]
CON-49970	SG - P-F1 - P-83L - Prep Transition Zone/Set Column Cage & Guy		4/24-May-29	30-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49880	SG - P-F1 - P-83L - Place Transition Zone Concrete		1/31-May-29	31-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-49990	SG - P-F1 - P-83L - Cure Transition Zone Concrete		7/01-Jun-29	07-Jun-29	5609 - TCD [F]
CON-35000	SG - P-F1 - P-83L - Form Column		9/01-Jun-29	05-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35040	SG - P-F1 - P-83L - Connect Thermal Control System		1/06-Jun-29	06-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35610	SG - P-F1 - P-83L - Place Column Concrete		1/06-Jun-29	08-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-35020	SG - P-F1 - P-83L - Cure Column Concrete		7/09-Jun-29	15-Jun-29	5609 - TCD [F]
CON-35030	SG - P-F1 - P-83L - Strip Column Forms 1 Day Minimum Removal		1/11-Jun-29	11-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | P-F1 Gore | Sup			133/18-May-29	03-Jun-29	
Const | St 6 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | P-F1 Gore | Sup | FW			133/18-May-29	03-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-45970	SG - P-SP1 - FW - Install Grillage/Bents/Bent Caps/Posts		2/18-May-29	21-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-45110	SG - P-SP2 - FW - Install Grillage/Bents/Bent Caps/Posts NB		2/22-May-29	23-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-45100	SG - P-SP3 - FW - Install Grillage/Bents/Bent Caps/Posts		2/12-Jun-29	13-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-45120	SG - P-SP2 - FW - Install Grillage/Bents/Bent Caps/Posts SB		2/14-Jun-29	15-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-46180	SG - P-SP3 - Remove Tieswork		2/28-Nov-29	27-Nov-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-46160	SG - P-SP2 - Remove Tieswork NB		1/28-Nov-29	28-Nov-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-46170	SG - P-SP2 - Remove Tieswork SB		1/29-Nov-29	29-Nov-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-46150	SG - P-SP1 - Remove Tieswork		2/30-Nov-29	30-Nov-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | P-F1 Gore | Sup | Soffit & Stem			9/22-May-29	24-Aug-29	
CON-45980	SG - P-SP1 - S&S - Install Soffit & Safety Rail		2/22-May-29	23-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-45880	SG - P-SP1 - S&S - Form Exterior Girder & CH		4/24-May-29	30-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-46090	SG - P-SP3 - S&S - Install Soffit & Safety Rail		4/14-Jun-29	19-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-46080	SG - P-SP3 - S&S - Form Exterior Girder & CH		5/20-Jun-29	26-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-46140	SG - P-SP2 - S&S - Install Soffit & Safety Rail		6/20-Jun-29	29-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-46130	SG - P-SP2 - S&S - Form Exterior Girder & CH		6/02-Jul-29	13-Jul-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-54431	SG - P-F1 - S&S - Place Elasticomeric Bearing Pads @ P-A1		3/02-Jul-29	05-Jul-29	5609 - SWD, Hol
CON-45880	SG - P-F1 - S&S - Place Soffit Rebar		5/10-Jul-29	16-Jul-29	5609 - SWD, Hol
CON-45990	SG - P-F1 - S&S - Place Stem Rebar		4/17-Jul-29	20-Jul-29	5609 - SWD, Hol
CON-45900	SG - P-F1 - S&S - Install PT Ducts		4/20-Jul-29	25-Jul-29	5609 - SWD, Hol
CON-45970	SG - P-F1 - S&S - Form Interior Girder & Walkways		9/26-Jul-29	07-Aug-29	5609 - SWD, Hol
CON-45940	SG - P-F1 - S&S - Form Diaphragm & Stiffeners		6/08-Aug-29	14-Aug-29	5609 - SWD, Hol
CON-45910	SG - P-F1 - S&S - Place Soffit & Stem Concrete		2/15-Aug-29	16-Aug-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-45920	SG - P-F1 - S&S - Cure Soffit & Stem Concrete		7/17-Aug-29	23-Aug-29	5609 - TCD [F]
CON-45930	SG - P-F1 - S&S - Strip Interior Girder Forms & Walkways		4/17-Aug-29	22-Aug-29	5609 - SWD, Hol
CON-45950	SG - P-F1 - S&S - Strip Diaphragms		2/23-Aug-29	24-Aug-29	5609 - SWD, Hol
Const | St 6 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | P-F1 Gore | Sup | Deck			30/17-Aug-29	09-Sep-29	
CON-45980	SG - P-F1 - DECK - Form Lost Deck		6/27-Aug-29	04-Sep-29	5609 - SWD, Hol
CON-46000	SG - P-F1 - DECK - Form EOD		4/05-Sep-29	10-Sep-29	5609 - SWD, Hol
CON-46010	SG - P-F1 - DECK - Install Scaled Rails & Run-Offs		4/08-Sep-29	11-Sep-29	5609 - SWD, Hol
CON-45990	SG - P-F1 - DECK - Place Deck Rebar		4/11-Sep-29	14-Sep-29	5609 - SWD, Hol
CON-46020	SG - P-F1 - DECK - Setup Bridge Finishing Machine & Work Bridges		2/12-Sep-29	13-Sep-29	5609 - SWD, Hol
CON-46050	SG - P-F1 - DECK - Dryrun Bridge Finishing Machine		1/17-Sep-29	17-Sep-29	5609 - SWD, Hol
CON-46030	SG - P-F1 - DECK - Place Bridge Deck Concrete		1/18-Sep-29	18-Sep-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
CON-46040	SG - P-F1 - DECK - Cure Bridge Deck Concrete		7/19-Sep-29	25-Sep-29	5609 - TCD [F]
CON-46060	SG - P-F1 - DECK - Strip Scaled Rails & EOD		3/26-Sep-29	28-Sep-29	5609 - SWD, Hol
CON-46070	SG - P-F1 - DECK - Strip C/J Bulkheads		2/01-Oct-29	02-Oct-29	5609 - SWD, Hol
CON-46220	SG - P-F1 - DECK - Strip Exterior Girder & CH Forms		4/03-Oct-29	08-Oct-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly
Const | St 6 | Con Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | P-F1 Gore | Sup | PT & BW			21/03-Oct-29	31-Oct-29	
CON-46190	SG - P-F1 - PT - Install PT Strands		4/03-Oct-29	08-Oct-29	5609 - SWD, Hol
CON-46200	SG - P-F1 - PT - Stress & Lock-off		3/09-Oct-29	11-Oct-29	5609 - SWD, Hol
CON-46210	SG - P-F1 - PT - Grout PT Strands		2/12-Oct-29	15-Oct-29	5609 - SWD, Hol

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Duration	Start	Finish	Calendar	
CON-49230	S6 - P-F1 - PT - RPS PT Blockouts	3	18-Oct-29	18-Oct-29	5609 - SWD, Hol	
CON-49291	S6 - P-F1 - PT - Place Backwall Rebar PA1 Ext	1	19-Oct-29	19-Oct-29	5609 - SWD, Hol	
CON-49301	S6 - P-F1 - PT - Form 2S Backwall PA1 Ext	1	22-Oct-29	22-Oct-29	5609 - SWD, Hol	
CON-49311	S6 - P-F1 - PT - Place Backwall Concrete PA1 Ext	1	23-Oct-29	23-Oct-29	5609 - SWD, Hol	
CON-49321	S6 - P-F1 - PT - Cure Backwall Concrete PA1 Ext	7	24-Oct-29	30-Oct-29	5609 - TCD [P]	
CON-49331	S6 - P-F1 - PT - Slip Backwall Form/Clean Bridge Seat 1 Day Minimum Removal PA1 Ext	1	31-Oct-29	31-Oct-29	5609 - SWD, Hol	
Const | St 6 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | Closure Pour | P Main to P Gore		14	04-Dec-29	14-Jan-30		
CON-42540	S6 - Br P - Settlement Period P Gore Structure	14	04-Dec-29	17-Dec-29	5609 - TCD [P]	
CON-42579	S6 - Br P - Form Solfill Closure Pour NB	4	04-Dec-29	10-Dec-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-42680	S6 - Br P - Form Solfill Closure Pour SB	4	11-Dec-29	17-Dec-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-42690	S6 - Br P - Place Closure Pour Rebar	4	18-Dec-29	01-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-42700	S6 - Br P - Place Closure Pour Concrete	1	03-Jan-30	03-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-42710	S6 - Br P - Cure Closure Pour Concrete	7	04-Jan-30	10-Jan-30	5609 - TCD [P]	
CON-42720	S6 - Br P - Slip Closure Pour	2	11-Jan-30	14-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Cen Access | Seg P | Retained Fill & At Grade Sta 21+94 to Sta 31+90 - Phase 2		125	15-May-29	09-Nov-29		
Const | St 6 | Cen Access | Seg P | Ret Fill Sta 25+08 to Sta 27+03 | Wall P-3		25	15-May-29	22-Jun-29		
Const | St 6 | Cen Access | Seg P | Ret Fill Sta 25+08 to Sta 27+03 | Wall P-3 | Part 1		20	15-May-29	10-Jun-29		
CON-38070	S6 - Wall P-3 - Excavate for Front Face	3	16-May-29	22-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38091	S6 - Wall P-3 - Remove About P-3A SDE	2	23-May-29	24-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49501	S6 - Wall P-3 - Drill & Sand Dowels & Wall Ties	3	24-May-29	30-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38110	S6 - Wall P-3 - FRP Panels	6	31-May-29	07-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-38130	S6 - Wall P-3 - Cure Panels	7	08-Jun-29	14-Jun-29	5609 - TCD [P]	
CON-38150	S6 - Wall P-3 - Slip Panels	1	15-Jun-29	15-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Cen Access | Seg P | Ret Fill Sta 25+08 to Sta 27+03 | Wall P-3 | Finishes		5	18-Jun-29	22-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-36420	S6 - Wall P-3 - Surface Finish Front Face / Install Arch Finishes	5	18-Jun-29	22-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Cen Access | Seg P | RF & At Grade Sta 21+94 to Sta 31+90 - Phase 2 - Roadway		97	25-Jun-29	06-Nov-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-37040	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Remove Prints & Handscapes	2	25-Jun-29	26-Jun-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49811	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Install Retaining Barrier	5	27-Jun-29	13-Jul-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49821	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Prep Subgrade	3	05-Jul-29	19-Jul-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49831	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Install Storm Drainage & Appurtenances	8	10-Jul-29	19-Jul-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49841	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Install Curb & Gutter	6	20-Jul-29	26-Jul-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49851	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Place Agg base & Fine Grd	4	27-Jul-29	1-Aug-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49861	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Place AC Base Course	1	08-Nov-29	18-Nov-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | St 6 | Cen Access | Seg S		1	01-Mar-29	24-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51751	S6 - Seg S - Remove Pavements & Handscapes	4	01-Mar-29	06-Mar-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51761	S6 - Seg S - Install Storm Drainage & Appurtenances	10	07-Mar-29	20-Mar-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51771	S6 - Seg S - Grade for Curb & Gutter	5	21-Mar-29	27-Mar-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51781	S6 - Seg S - Place Curb & Gutter	5	28-Mar-29	03-Apr-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51791	S6 - Seg S - Install OH Gantry Foundation	3	01-Apr-29	06-Apr-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51801	S6 - Seg S - Fine Grade Subgrade / Place Agg Base	8	09-Apr-29	18-Apr-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51811	S6 - Seg S - Place Base Course ACP	2	19-Apr-29	20-Apr-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51821	S6 - Seg S - Install OHSS & Wayfinding Signs	4	23-Apr-29	28-Apr-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51831	S6 - Seg S - Install Misc Rdwy Finishes & Switch Traffic to Perm Pymnt	5	27-Apr-29	03-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51841	S6 - Seg S - Remove Temp Pavement	2	04-May-29	07-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51851	S6 - Seg S - Install ITS Gantry Foundation	3	06-May-29	10-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51861	S6 - Seg S - Install Curb & Patch ACP @ Core	6	11-May-29	22-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51871	S6 - Seg S - Install ITS Gantry	2	23-May-29	24-May-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | Ancillary Works		102	17-Nov-25	18-Jan-30		
Const | Ancillary Works | Post Way Ramp Modifications		23	10-Dec-29	18-Jan-30		
CON-32010	AW - Post Way Ramp - Sawcut & Remove Pavement	2	03-Dec-29	11-Dec-29	5609 - SWD, Hol	
CON-40740	AW - Post Way Ramp - Excavate for RW Footing	1	12-Dec-29	12-Dec-29	5609 - SWD, Hol	
CON-40750	AW - Post Way Ramp - FRP RW Footing	3	13-Dec-29	16-Dec-29	5609 - SWD, Hol	
CON-40760	AW - Post Way Ramp - FRP RW Panels	5	19-Dec-29	02-Jan-30	5609 - SWD, Hol	
CON-40770	AW - Post Way Ramp - Finish RW Cure	1	03-Jan-30	03-Jan-30	5609 - TCD [P]	
CON-40780	AW - Post Way Ramp - Slip RW Panels	2	04-Jan-30	07-Jan-30	5609 - SWD, Hol	
CON-40790	AW - Post Way Ramp - Surface Finish RW Front Face / Install Arch Finishes	5	08-Jan-30	14-Jan-30	5609 - SWD, Hol	
CON-40800	AW - Post Way Ramp - Restore Pavements as Req'd	4	15-Jan-30	19-Jan-30	5609 - SWD, Hol	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar	
Const | Ancillary Works | 94th St						
CON-1550	AW - 94th - Construct 94th St Sepuvedo to Jersey	180	30-Mar-26	25-Sep-26	5609 - TCD [P]	25-Sep-26, Const | Ancillary Works | 94th St
Const | Ancillary Works | 96th St Ped Bridge						
CON-16591	AW - 96th Ped - Demo Pavements & Hardscapes South Ramp	31	25-Nov-25	01-Dec-26	5609 - SWD, Hol	25-Nov-25, Const | Ancillary Works | 96th St Ped Bridge
CON-41380	AW - 96th Ped - Demo Pavements & Hardscapes North Ramp / Grade for CIDH	31	25-Apr-26	22-Apr-26	5609 - SWD, Hol	25-Apr-26, Const | Ancillary Works | 96th St Ped Bridge | Sid Prep
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure						
CON-16591	AW - 96th Ped - Demo Pavements & Hardscapes South Ramp	31	25-Nov-25	01-Dec-26	5609 - SWD, Hol	25-Nov-25, Const | Ancillary Works | 96th St Ped Bridge | Sid Prep
CON-41380	AW - 96th Ped - Demo Pavements & Hardscapes North Ramp / Grade for CIDH	31	25-Apr-26	22-Apr-26	5609 - SWD, Hol	25-Apr-26, Const | Ancillary Works | 96th St Ped Bridge | Sid Prep
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Cantilevered Slab						
CON-42981	AW - 96th Ped - F1 - 96PB-1 - Install CIDH Shaft(s)	31	04-Jun-26	08-Jun-26	5609 - SWD, Hol	04-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Cantilevered Slab
CON-52691	AW - 96th Ped - F1 - 96PB-1 - Cure Shaft	7	09-Jun-26	15-Jun-26	5609 - TCD [P]	09-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Cantilevered Slab
CON-52701	AW - 96th Ped - F1 - 96PB-1 - Prep Transition Zone/Set Column Cage & Guy	4	09-Jun-26	12-Jun-26	5609 - SWD, Hol	09-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Cantilevered Slab
CON-52711	AW - 96th Ped - F1 - 96PB-1 - Place Transition Zone Concrete	1	16-Jun-26	16-Jun-26	5609 - SWD, Hol	16-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Cantilevered Slab
CON-52721	AW - 96th Ped - F1 - 96PB-1 - Cure Transition Zone Concrete	7	17-Jun-26	23-Jun-26	5609 - TCD [P]	17-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Cantilevered Slab
CON-52731	AW - 96th Ped - F1 - 96PB-1 - Form Column	31	17-Jun-26	19-Jun-26	5609 - SWD, Hol	17-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Cantilevered Slab
CON-52741	AW - 96th Ped - F1 - 96PB-1 - Place Column Concrete	1	24-Jun-26	24-Jun-26	5609 - SWD, Hol	24-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Cantilevered Slab
CON-52751	AW - 96th Ped - F1 - 96PB-1 - Cure Column Concrete	7	25-Jun-26	01-Jul-26	5609 - TCD [P]	25-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Cantilevered Slab
CON-52761	AW - 96th Ped - F1 - 96PB-1 - Strip Column Forms 1 Day Minimum Removal	1	25-Jun-26	25-Jun-26	5609 - SWD, Hol	25-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Cantilevered Slab
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub						
CON-44070	AW - 96th Ped - F1 - Install Falswork Grillage/Bents/Bent Caps/Posts	31	21-Sep-26	23-Sep-26	5609 - SWD, Hol	21-Sep-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
CON-44080	AW - 96th Ped - F1 - Install Soffit & Safety Rail	2	24-Sep-26	25-Sep-26	5609 - SWD, Hol	24-Sep-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
CON-44090	AW - 96th Ped - F1 - Form Edge of Deck	3	28-Sep-26	30-Sep-26	5609 - SWD, Hol	28-Sep-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
CON-44100	AW - 96th Ped - F1 - Install Deck Rebar	3	01-Oct-26	05-Oct-26	5609 - SWD, Hol	01-Oct-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
CON-44111	AW - 96th Ped - F1 - Form Void Space	2	05-Oct-26	07-Oct-26	5609 - SWD, Hol	05-Oct-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
CON-44130	AW - 96th Ped - F1 - Place Deck Concrete Lift 1	1	08-Oct-26	08-Oct-26	5609 - SWD, Hol	08-Oct-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
CON-44140	AW - 96th Ped - F1 - Cure Deck Concrete Lift 1	7	09-Oct-26	15-Oct-26	5609 - TCD [P]	09-Oct-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
CON-53491	AW - 96th Ped - F1 - Install Remaining Deck Rebar	2	18-Oct-26	19-Oct-26	5609 - SWD, Hol	18-Oct-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
CON-53501	AW - 96th Ped - F1 - Place Deck Concrete Lift 2	1	20-Oct-26	20-Oct-26	5609 - SWD, Hol	20-Oct-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
CON-53511	AW - 96th Ped - F1 - Cure Deck Concrete Lift 2	7	21-Oct-26	27-Oct-26	5609 - TCD [P]	21-Oct-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
CON-44120	AW - 96th Ped - F1 - Form Interior Curb Face & Install Embeds	1	28-Oct-26	28-Oct-26	5609 - SWD, Hol	28-Oct-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
CON-53521	AW - 96th Ped - F1 - Place Curb Concrete	1	29-Oct-26	29-Oct-26	5609 - SWD, Hol	29-Oct-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
CON-44150	AW - 96th Ped - F1 - Strip CJ Bulkheads & Curb Face	1	30-Oct-26	30-Oct-26	5609 - SWD, Hol	30-Oct-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
CON-53531	AW - 96th Ped - F1 - Remove Falswork	1	19-Jan-27	19-Jan-27	5609 - SWD, Hol	19-Jan-27, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 1 - Fndms & Sub
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 - RC Box Girder						
CON-53311	AW - 96th Ped - F2 - 96PB-2 - Install CIDH Shaft(s)	31	01-Jun-26	26-Jun-26	5609 - SWD, Hol	01-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 - RC Box Girder
CON-53321	AW - 96th Ped - F2 - 96PB-2 - Cure Shaft	7	04-Jun-26	10-Jun-26	5609 - TCD [P]	04-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 - RC Box Girder
CON-53331	AW - 96th Ped - F2 - 96PB-2 - Prep Transition Zone/Set Column Cage & Guy	4	04-Jun-26	09-Jun-26	5609 - SWD, Hol	04-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 - RC Box Girder
CON-53341	AW - 96th Ped - F2 - 96PB-2 - Place Transition Zone Concrete	1	11-Jun-26	11-Jun-26	5609 - SWD, Hol	11-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 - RC Box Girder
CON-53351	AW - 96th Ped - F2 - 96PB-2 - Cure Transition Zone Concrete	7	12-Jun-26	18-Jun-26	5609 - TCD [P]	12-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 - RC Box Girder
CON-53361	AW - 96th Ped - F2 - 96PB-2 - Form Column	31	12-Jun-26	16-Jun-26	5609 - SWD, Hol	12-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 - RC Box Girder
CON-53371	AW - 96th Ped - F2 - 96PB-2 - Place Column Concrete	1	19-Jun-26	19-Jun-26	5609 - SWD, Hol	19-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 - RC Box Girder
CON-53381	AW - 96th Ped - F2 - 96PB-2 - Cure Column Concrete	7	20-Jun-26	26-Jun-26	5609 - TCD [P]	20-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 - RC Box Girder
CON-53391	AW - 96th Ped - F2 - 96PB-2 - Strip Column Forms 1 Day Minimum Removal	1	22-Jun-26	22-Jun-26	5609 - SWD, Hol	22-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 - RC Box Girder
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndms & Sub - 96PB-3						
CON-53221	AW - 96th Ped - F2 - 96PB-3 - Install CIDH Shaft(s)	31	27-May-26	29-May-26	5609 - SWD, Hol	27-May-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndms & Sub - 96PB-3
CON-53231	AW - 96th Ped - F2 - 96PB-3 - Cure Shaft	7	30-May-26	05-Jun-26	5609 - TCD [P]	30-May-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndms & Sub - 96PB-3
CON-53241	AW - 96th Ped - F2 - 96PB-3 - Prep Transition Zone/Set Column Cage & Guy	4	01-Jun-26	04-Jun-26	5609 - SWD, Hol	01-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndms & Sub - 96PB-3
CON-53251	AW - 96th Ped - F2 - 96PB-3 - Place Transition Zone Concrete	1	09-Jun-26	09-Jun-26	5609 - SWD, Hol	09-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndms & Sub - 96PB-3
CON-53261	AW - 96th Ped - F2 - 96PB-3 - Cure Transition Zone Concrete	7	09-Jun-26	15-Jun-26	5609 - TCD [P]	09-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndms & Sub - 96PB-3
CON-53271	AW - 96th Ped - F2 - 96PB-3 - Form Column	31	09-Jun-26	11-Jun-26	5609 - SWD, Hol	09-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndms & Sub - 96PB-3
CON-53281	AW - 96th Ped - F2 - 96PB-3 - Place Column Concrete	1	16-Jun-26	16-Jun-26	5609 - SWD, Hol	16-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndms & Sub - 96PB-3
CON-53291	AW - 96th Ped - F2 - 96PB-3 - Cure Column Concrete	7	17-Jun-26	23-Jun-26	5609 - TCD [P]	17-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndms & Sub - 96PB-3
CON-53301	AW - 96th Ped - F2 - 96PB-3 - Strip Column Forms 1 Day Minimum Removal	1	17-Jun-26	17-Jun-26	5609 - SWD, Hol	17-Jun-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndms & Sub - 96PB-3
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndms & Sub - 96PB-4						

Activity ID	Activity Name	Start	Finish	Calendar	
CON-52771	AW - 96th Ped - F2 - 96PB-4 - Install CIDH Shafts	3 21-May-26	26-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-4 - Install CIDH Shafts
CON-52781	AW - 96th Ped - F2 - 96PB-4 - Cure Shaft	7 27-May-26	02-Jun-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-4 - Cure Shaft
CON-52791	AW - 96th Ped - F2 - 96PB-4 - Prep Transition Zone/Set Column Cage & Guy	4 27-May-26	01-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-4 - Prep Transition Zone/Set Column Cage & Guy
CON-52801	AW - 96th Ped - F2 - 96PB-4 - Place Transition Zone Concrete	1 03-Jun-26	03-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-4 - Place Transition Zone Concrete
CON-52811	AW - 96th Ped - F2 - 96PB-4 - Cure Transition Zone Concrete	7 04-Jun-26	10-Jun-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-4 - Cure Transition Zone Concrete
CON-52821	AW - 96th Ped - F2 - 96PB-4 - Form Column	3 04-Jun-26	05-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-4 - Form Column
CON-52831	AW - 96th Ped - F2 - 96PB-4 - Place Column Concrete	1 11-Jun-26	11-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-4 - Place Column Concrete
CON-52841	AW - 96th Ped - F2 - 96PB-4 - Cure Column Concrete	7 12-Jun-26	18-Jun-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-4 - Cure Column Concrete
CON-52851	AW - 96th Ped - F2 - 96PB-4 - Strip Column Forms 1 Day Minimum Removal	1 12-Jun-26	12-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-4 - Strip Column Forms 1 Day Minimum Removal
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndtns & Sub - 96PB-5					
CON-52861	AW - 96th Ped - F2 - 96PB-5 - Install CIDH Shafts	3 18-May-26	20-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-5 - Install CIDH Shafts
CON-52871	AW - 96th Ped - F2 - 96PB-5 - Cure Shaft	7 21-May-26	27-May-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-5 - Cure Shaft
CON-52881	AW - 96th Ped - F2 - 96PB-5 - Prep Transition Zone/Set Column Cage & Guy	4 21-May-26	27-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-5 - Prep Transition Zone/Set Column Cage & Guy
CON-52891	AW - 96th Ped - F2 - 96PB-5 - Place Transition Zone Concrete	1 28-May-26	28-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-5 - Place Transition Zone Concrete
CON-52901	AW - 96th Ped - F2 - 96PB-5 - Cure Transition Zone Concrete	7 29-May-26	04-Jun-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-5 - Cure Transition Zone Concrete
CON-52911	AW - 96th Ped - F2 - 96PB-5 - Form Column	3 29-May-26	02-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-5 - Form Column
CON-52921	AW - 96th Ped - F2 - 96PB-5 - Place Column Concrete	1 05-Jun-26	05-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-5 - Place Column Concrete
CON-52931	AW - 96th Ped - F2 - 96PB-5 - Cure Column Concrete	7 06-Jun-26	12-Jun-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-5 - Cure Column Concrete
CON-52941	AW - 96th Ped - F2 - 96PB-5 - Strip Column Forms 1 Day Minimum Removal	1 08-Jun-26	08-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-5 - Strip Column Forms 1 Day Minimum Removal
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndtns & Sub - 96PB-6					
CON-52951	AW - 96th Ped - F2 - 96PB-6 - Install CIDH Shafts	3 13-May-26	15-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-6 - Install CIDH Shafts
CON-52961	AW - 96th Ped - F2 - 96PB-6 - Cure Shaft	7 15-May-26	22-May-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-6 - Cure Shaft
CON-52971	AW - 96th Ped - F2 - 96PB-6 - Prep Transition Zone/Set Column Cage & Guy	4 15-May-26	21-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-6 - Prep Transition Zone/Set Column Cage & Guy
CON-52981	AW - 96th Ped - F2 - 96PB-6 - Place Transition Zone Concrete	1 25-May-26	25-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-6 - Place Transition Zone Concrete
CON-52991	AW - 96th Ped - F2 - 96PB-6 - Cure Transition Zone Concrete	7 27-May-26	30-Jun-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-6 - Cure Transition Zone Concrete
CON-53001	AW - 96th Ped - F2 - 96PB-6 - Form Column	3 27-May-26	29-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-6 - Form Column
CON-53011	AW - 96th Ped - F2 - 96PB-6 - Place Column Concrete	1 33-Jun-26	13-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-6 - Place Column Concrete
CON-53021	AW - 96th Ped - F2 - 96PB-6 - Cure Column Concrete	7 34-Jun-26	10-Jun-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-6 - Cure Column Concrete
CON-53031	AW - 96th Ped - F2 - 96PB-6 - Strip Column Forms 1 Day Minimum Removal	1 04-Jun-26	04-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-6 - Strip Column Forms 1 Day Minimum Removal
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndtns & Sub - 96PB-7					
CON-53041	AW - 96th Ped - F2 - 96PB-7 - Install CIDH Shafts	3 05-May-26	12-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-7 - Install CIDH Shafts
CON-53051	AW - 96th Ped - F2 - 96PB-7 - Cure Shaft	7 13-May-26	19-May-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-7 - Cure Shaft
CON-53061	AW - 96th Ped - F2 - 96PB-7 - Prep Transition Zone/Set Column Cage & Guy	4 13-May-26	18-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-7 - Prep Transition Zone/Set Column Cage & Guy
CON-53071	AW - 96th Ped - F2 - 96PB-7 - Place Transition Zone Concrete	1 20-May-26	20-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-7 - Place Transition Zone Concrete
CON-53081	AW - 96th Ped - F2 - 96PB-7 - Cure Transition Zone Concrete	7 21-May-26	27-May-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-7 - Cure Transition Zone Concrete
CON-53091	AW - 96th Ped - F2 - 96PB-7 - Form Column	3 21-May-26	26-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-7 - Form Column
CON-53101	AW - 96th Ped - F2 - 96PB-7 - Place Column Concrete	1 28-May-26	28-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-7 - Place Column Concrete
CON-53111	AW - 96th Ped - F2 - 96PB-7 - Cure Column Concrete	7 29-May-26	04-Jun-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-7 - Cure Column Concrete
CON-53121	AW - 96th Ped - F2 - 96PB-7 - Strip Column Forms 1 Day Minimum Removal	1 29-May-26	29-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-7 - Strip Column Forms 1 Day Minimum Removal
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Fndtns & Sub - 96PB-8					
CON-53131	AW - 96th Ped - F2 - 96PB-8 - Install CIDH Shafts	3 05-May-26	07-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-8 - Install CIDH Shafts
CON-53141	AW - 96th Ped - F2 - 96PB-8 - Cure Shaft	7 06-May-26	14-May-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-8 - Cure Shaft
CON-53151	AW - 96th Ped - F2 - 96PB-8 - Prep Transition Zone/Set Column Cage & Guy	4 06-May-26	13-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-8 - Prep Transition Zone/Set Column Cage & Guy
CON-53161	AW - 96th Ped - F2 - 96PB-8 - Place Transition Zone Concrete	1 15-May-26	15-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-8 - Place Transition Zone Concrete
CON-53171	AW - 96th Ped - F2 - 96PB-8 - Cure Transition Zone Concrete	7 16-May-26	22-May-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-8 - Cure Transition Zone Concrete
CON-53181	AW - 96th Ped - F2 - 96PB-8 - Form Column	3 18-May-26	20-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-8 - Form Column
CON-53191	AW - 96th Ped - F2 - 96PB-8 - Place Column Concrete	1 26-May-26	26-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-8 - Place Column Concrete
CON-53201	AW - 96th Ped - F2 - 96PB-8 - Cure Column Concrete	7 27-May-26	02-Jun-26	5609 - TCD [P]	AW - 96th Ped - F2 - 96PB-8 - Cure Column Concrete
CON-53211	AW - 96th Ped - F2 - 96PB-8 - Strip Column Forms 1 Day Minimum Removal	1 27-May-26	27-May-26	5609 - SWD, Hol	AW - 96th Ped - F2 - 96PB-8 - Strip Column Forms 1 Day Minimum Removal
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 24 Falseswork					
CON-44370	AW - 96th Ped - F2B - Install Falswork Over 96th	3 15-Jun-26	17-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F2B - Install Falswork Over 96th
CON-44370	AW - 96th Ped - F2C - Install Falswork No of 96th	3 21-Jul-26	23-Jul-26	5609 - SWD, Hol	AW - 96th Ped - F2C - Install Falswork No of 96th
CON-44180	AW - 96th Ped - F2A - Install Falswork So of 96th	3 26-Aug-26	28-Aug-26	5609 - SWD, Hol	AW - 96th Ped - F2A - Install Falswork So of 96th
CON-44540	AW - 96th Ped - F2B - Remove Falswork Over 96th	3 29-Dec-26	04-Jan-27	5609 - SWD, Hol	AW - 96th Ped - F2B - Remove Falswork Over 96th
CON-53541	AW - 96th Ped - F2A - Remove Falswork So of 96th	3 14-Jan-27	16-Jan-27	5609 - SWD, Hol	AW - 96th Ped - F2A - Remove Falswork So of 96th
CON-53551	AW - 96th Ped - F2C - Remove Falswork No of 96th	3 19-Jan-27	21-Jan-27	5609 - SWD, Hol	AW - 96th Ped - F2C - Remove Falswork No of 96th
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 24 Super					
CON-44370	AW - 96th Ped - F2B - Install Falswork Over 96th	3 15-Jun-26	17-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F2B - Install Falswork Over 96th
CON-44370	AW - 96th Ped - F2C - Install Falswork No of 96th	3 21-Jul-26	23-Jul-26	5609 - SWD, Hol	AW - 96th Ped - F2C - Install Falswork No of 96th
CON-44180	AW - 96th Ped - F2A - Install Falswork So of 96th	3 26-Aug-26	28-Aug-26	5609 - SWD, Hol	AW - 96th Ped - F2A - Install Falswork So of 96th
CON-44540	AW - 96th Ped - F2B - Remove Falswork Over 96th	3 29-Dec-26	04-Jan-27	5609 - SWD, Hol	AW - 96th Ped - F2B - Remove Falswork Over 96th
CON-53541	AW - 96th Ped - F2A - Remove Falswork So of 96th	3 14-Jan-27	16-Jan-27	5609 - SWD, Hol	AW - 96th Ped - F2A - Remove Falswork So of 96th
CON-53551	AW - 96th Ped - F2C - Remove Falswork No of 96th	3 19-Jan-27	21-Jan-27	5609 - SWD, Hol	AW - 96th Ped - F2C - Remove Falswork No of 96th

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	mainline	Start	Finish	Calendar	
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Super - Frame 2A So of 96th						
CON-44190	AW - 96th Ped - F2A - Install Soffit & Safety Rail	4	31-Aug-26	03-Sep-26	5609 - SWD, Hal	AW - 96th Ped - F2A - Install Soffit & Safety Rail
CON-44200	AW - 96th Ped - F2A - Form Exterior Girder & Overhang	9	04-Sep-26	17-Sep-26	5609 - SWD, Hal	AW - 96th Ped - F2A - Form Exterior Girder & Overhang
CON-53551	AW - 96th Ped - F2A - Install Bearing Pads & Exp Joint Foam	2	02-Nov-25	03-Nov-25	5609 - SWD, Hal	AW - 96th Ped - F2A - Install Bearing Pads & Exp Joint Foam
CON-44210	AW - 96th Ped - F2A - Place Soffit & Stem Rebar	6	04-Nov-25	10-Nov-25	5609 - SWD, Hal	AW - 96th Ped - F2A - Place Soffit & Stem Rebar
CON-44210	AW - 96th Ped - F2A - Install Conduits & MEPs	3	12-Nov-25	16-Nov-25	5609 - SWD, Hal	AW - 96th Ped - F2A - Install Conduits & MEPs
CON-44220	AW - 96th Ped - F2A - Form Interior Girders & Bulkheads	4	17-Nov-25	20-Nov-25	5609 - SWD, Hal	AW - 96th Ped - F2A - Form Interior Girders & Bulkheads
CON-44230	AW - 96th Ped - F2A - Place Soffit & Stem Concrete	1	23-Nov-25	23-Nov-25	5609 - SWD, Hal	AW - 96th Ped - F2A - Place Soffit & Stem Concrete
CON-44240	AW - 96th Ped - F2A - Cure Soffit & Stem Concrete	7	24-Nov-25	30-Nov-25	5609 - 7CD [F]	AW - 96th Ped - F2A - Cure Soffit & Stem Concrete
CON-44250	AW - 96th Ped - F2A - Strip Interior Girders	2	24-Nov-25	25-Nov-25	5609 - SWD, Hal	AW - 96th Ped - F2A - Strip Interior Girders
CON-44270	AW - 96th Ped - F2A - Form Last Deck	3	30-Nov-25	02-Dec-25	5609 - SWD, Hal	AW - 96th Ped - F2A - Form Last Deck
CON-44280	AW - 96th Ped - F2A - Install Deck Rebar	2	03-Dec-25	07-Dec-25	5609 - SWD, Hal	AW - 96th Ped - F2A - Install Deck Rebar
CON-44291	AW - 96th Ped - F2A - Set Scaffolds	2	03-Dec-25	09-Dec-25	5609 - SWD, Hal	AW - 96th Ped - F2A - Set Scaffolds
CON-44300	AW - 96th Ped - F2A - Install Embeds	5	10-Dec-25	17-Dec-25	5609 - SWD, Hal	AW - 96th Ped - F2A - Install Embeds
CON-44320	AW - 96th Ped - F2A - Place Deck Concrete	1	21-Dec-25	21-Dec-25	5609 - SWD, Hal	AW - 96th Ped - F2A - Place Deck Concrete
CON-44330	AW - 96th Ped - F2A - Cure Deck Concrete	7	22-Dec-25	28-Dec-25	5609 - 7CD [F]	AW - 96th Ped - F2A - Cure Deck Concrete
CON-44340	AW - 96th Ped - F2A - Strip & Prep CJ Bulkheads	3	22-Dec-25	28-Dec-25	5609 - SWD, Hal	AW - 96th Ped - F2A - Strip & Prep CJ Bulkheads
CON-53571	AW - 96th Ped - F2A - FRP Curb	7	29-Dec-25	06-Jan-27	5609 - SWD, Hal	AW - 96th Ped - F2A - FRP Curb
CON-53581	AW - 96th Ped - F2A - Strip Curb Face & Exterior Girder	3	11-Jan-27	13-Jan-27	5609 - SWD, Hal	AW - 96th Ped - F2A - Strip Curb Face & Exterior Girder
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Super - Frame 2B Over 96th						
CON-44380	AW - 96th Ped - F2B - Install Soffit & Safety Rail	4	18-Jun-26	23-Jun-26	5609 - SWD, Hal	AW - 96th Ped - F2B - Install Soffit & Safety Rail
CON-44390	AW - 96th Ped - F2B - Form Exterior Girder & Overhang	8	24-Jun-26	06-Jul-26	5609 - SWD, Hal	AW - 96th Ped - F2B - Form Exterior Girder & Overhang
CON-44400	AW - 96th Ped - F2B - Place Soffit & Stem Rebar	5	07-Jul-26	13-Jul-26	5609 - SWD, Hal	AW - 96th Ped - F2B - Place Soffit & Stem Rebar
CON-44500	AW - 96th Ped - F2B - Install Conduits & MEPs	3	14-Jul-26	16-Jul-26	5609 - SWD, Hal	AW - 96th Ped - F2B - Install Conduits & MEPs
CON-44410	AW - 96th Ped - F2B - Form Interior Girders & Bulkheads	5	17-Jul-26	23-Jul-26	5609 - SWD, Hal	AW - 96th Ped - F2B - Form Interior Girders & Bulkheads
CON-44420	AW - 96th Ped - F2B - Place Soffit & Stem Concrete	1	24-Jul-26	24-Jul-26	5609 - SWD, Hal	AW - 96th Ped - F2B - Place Soffit & Stem Concrete
CON-44430	AW - 96th Ped - F2B - Cure Soffit & Stem Concrete	7	25-Jul-26	31-Jul-26	5609 - 7CD [F]	AW - 96th Ped - F2B - Cure Soffit & Stem Concrete
CON-44440	AW - 96th Ped - F2B - Strip Interior Girders	2	27-Jul-26	28-Jul-26	5609 - SWD, Hal	AW - 96th Ped - F2B - Strip Interior Girders
CON-44460	AW - 96th Ped - F2B - Form Last Deck	6	29-Jul-26	04-Aug-26	5609 - SWP, Hal	AW - 96th Ped - F2B - Form Last Deck
CON-44470	AW - 96th Ped - F2B - Install Deck Rebar	4	05-Aug-26	10-Aug-26	5609 - SWD, Hal	AW - 96th Ped - F2B - Install Deck Rebar
CON-53591	AW - 96th Ped - F2B - Set Scaffolds	2	11-Aug-26	12-Aug-26	5609 - SWD, Hal	AW - 96th Ped - F2B - Set Scaffolds
CON-44510	AW - 96th Ped - F2B - Place Deck Concrete	2	13-Aug-26	14-Aug-26	5609 - SWD, Hal	AW - 96th Ped - F2B - Place Deck Concrete
CON-44520	AW - 96th Ped - F2B - Cure Deck Concrete	7	15-Aug-26	21-Aug-26	5609 - 7CD [F]	AW - 96th Ped - F2B - Cure Deck Concrete
CON-44530	AW - 96th Ped - F2B - Strip & Prep CJ Bulkheads	1	17-Aug-26	17-Aug-26	5609 - SWD, Hal	AW - 96th Ped - F2B - Strip & Prep CJ Bulkheads
CON-44580	AW - 96th Ped - F2B - FRP Curb	9	18-Aug-26	28-Aug-26	5609 - SWD, Hal	AW - 96th Ped - F2B - FRP Curb
CON-53501	AW - 96th Ped - F2B - Strip Curb Face & EOD	3	31-Aug-26	02-Sep-26	5609 - SWD, Hal	AW - 96th Ped - F2B - Strip Curb Face & EOD
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 2 | Super - Frame 2C No of 96th						
CON-44580	AW - 96th Ped - F2C - Install Soffit & Safety Rail	4	24-Jul-26	29-Jul-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Install Soffit & Safety Rail
CON-44590	AW - 96th Ped - F2C - Form Exterior Girder & Overhang	9	30-Jul-26	11-Aug-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Form Exterior Girder & Overhang
CON-53641	AW - 96th Ped - F2C - Install Bearing Pads & Exp Joint Foam	2	12-Aug-26	13-Aug-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Install Bearing Pads & Exp Joint Foam
CON-44600	AW - 96th Ped - F2C - Place Soffit & Stem Rebar	6	14-Aug-26	20-Aug-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Place Soffit & Stem Rebar
CON-44680	AW - 96th Ped - F2C - Install Conduits & MEPs	3	21-Aug-26	25-Aug-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Install Conduits & MEPs
CON-44610	AW - 96th Ped - F2C - Form Interior Girders & Bulkheads	4	28-Aug-26	31-Aug-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Form Interior Girders & Bulkheads
CON-44620	AW - 96th Ped - F2C - Place Soffit & Stem Concrete	1	01-Sep-26	01-Sep-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Place Soffit & Stem Concrete
CON-44630	AW - 96th Ped - F2C - Cure Soffit & Stem Concrete	7	02-Sep-26	08-Sep-26	5609 - 7CD [F]	AW - 96th Ped - F2C - Cure Soffit & Stem Concrete
CON-44640	AW - 96th Ped - F2C - Strip Interior Girders	2	02-Sep-26	03-Sep-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Strip Interior Girders
CON-44660	AW - 96th Ped - F2C - Form Last Deck	3	04-Sep-26	09-Sep-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Form Last Deck
CON-44670	AW - 96th Ped - F2C - Install Deck Rebar	2	10-Sep-26	11-Sep-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Install Deck Rebar
CON-53611	AW - 96th Ped - F2C - Set Scaffolds	2	14-Sep-26	15-Sep-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Set Scaffolds
CON-44710	AW - 96th Ped - F2C - Place Deck Concrete	1	18-Sep-26	18-Sep-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Place Deck Concrete
CON-44720	AW - 96th Ped - F2C - Cure Deck Concrete	7	17-Sep-26	23-Sep-26	5609 - 7CD [F]	AW - 96th Ped - F2C - Cure Deck Concrete
CON-44730	AW - 96th Ped - F2C - Strip & Prep CJ Bulkheads	2	17-Sep-26	18-Sep-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Strip & Prep CJ Bulkheads
CON-53621	AW - 96th Ped - F2C - FRP Curb	7	21-Sep-26	29-Sep-26	5609 - SWD, Hal	AW - 96th Ped - F2C - FRP Curb
CON-53631	AW - 96th Ped - F2C - Strip Curb Face & EOD	3	30-Sep-26	02-Oct-26	5609 - SWD, Hal	AW - 96th Ped - F2C - Strip Curb Face & EOD
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 3 - Cantilevered Slab						
CON-44350	AW - 96th Ped - F3 - 95PB-9 - Install CIDH Shaft(s)	5	30-Apr-26	04-May-26	5609 - SWD, Hal	AW - 96th Ped - F3 - 95PB-9 - Install CIDH Shaft(s)

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-5341	AW - 96th Ped - F3 - 96PB-9 - Cure Shaft		7 05-May-26	11-May-26	5609 - TCD [P]	AW - 96th Ped - F3 - 96PB-9 - Cure Shaft
CON-5342	AW - 96th Ped - F3 - 96PB-9 - Prep Transition Zone/Set Column Cage & Guy		4 05-May-26	08-May-26	5609 - SWD, Hol	AW - 96th Ped - F3 - 96PB-9 - Prep Transition Zone/Set Column Cage & Guy
CON-5343	AW - 96th Ped - F3 - 96PB-9 - Place Transition Zone Concrete		1 12-May-26	12-May-26	5609 - SWD, Hol	AW - 96th Ped - F3 - 96PB-9 - Place Transition Zone Concrete
CON-5344	AW - 96th Ped - F3 - 96PB-9 - Cure Transition Zone Concrete		7 13-May-26	19-May-26	5609 - TCD [P]	AW - 96th Ped - F3 - 96PB-9 - Cure Transition Zone Concrete
CON-5345	AW - 96th Ped - F3 - 96PB-9 - Form Column		3 13-May-26	15-May-26	5609 - SWD, Hol	AW - 96th Ped - F3 - 96PB-9 - Form Column
CON-5348	AW - 96th Ped - F3 - 96PB-9 - Place Column Concrete		1 20-May-26	20-May-26	5609 - SWD, Hol	AW - 96th Ped - F3 - 96PB-9 - Place Column Concrete
CON-5347	AW - 96th Ped - F3 - 96PB-9 - Cure Column Concrete		7 21-May-26	27-May-26	5609 - TCD [P]	AW - 96th Ped - F3 - 96PB-9 - Cure Column Concrete
CON-5348	AW - 96th Ped - F3 - 96PB-9 - Strip Column Forms 1 Day Minimum Removal		1 21-May-26	21-May-26	5609 - SWD, Hol	AW - 96th Ped - F3 - 96PB-9 - Strip Column Forms 1 Day Minimum Removal
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 3 | Super			3 01-May-26	15-Jun-26		3 01-May-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 3 | Super
CON-44780	AW - 96th Ped - F3 - Install Falsework Girders/Bents/Bent Caps/Posts		3 28-May-26	01-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F3 - Install Falsework Girders/Bents/Bent Caps/Posts
CON-44770	AW - 96th Ped - F3 - Install Soffit & Safety Rail		2 02-Jun-26	03-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F3 - Install Soffit & Safety Rail
CON-44780	AW - 96th Ped - F3 - Form EOD		3 04-Jun-26	08-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F3 - Form EOD
CON-44790	AW - 96th Ped - F3 - Place Initial Rebar		3 09-Jun-26	11-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F3 - Place Initial Rebar
CON-44805	AW - 96th Ped - F3 - Form Void Space		2 12-Jun-26	15-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F3 - Form Void Space
CON-44810	AW - 96th Ped - F3 - Place Concrete Lift 1		1 16-Jun-26	16-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F3 - Place Concrete Lift 1
CON-44820	AW - 96th Ped - F3 - Cure Concrete Lift 1		7 17-Jun-26	23-Jun-26	5609 - TCD [P]	AW - 96th Ped - F3 - Cure Concrete Lift 1
CON-44850	AW - 96th Ped - F3 - Form Lost Deck		3 24-Jun-26	26-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F3 - Form Lost Deck
CON-44860	AW - 96th Ped - F3 - Install Remaining Rebar		2 29-Jun-26	30-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F3 - Install Remaining Rebar
CON-44900	AW - 96th Ped - F3 - Place Concrete Lift 2		1 01-Jul-26	21-Jul-26	5609 - SWD, Hol	AW - 96th Ped - F3 - Place Concrete Lift 2
CON-44910	AW - 96th Ped - F3 - Cure Concrete Lift 2		7 02-Jul-26	08-Jul-26	5609 - TCD [P]	AW - 96th Ped - F3 - Cure Concrete Lift 2
CON-44870	AW - 96th Ped - F3 - FRP Curb		3 09-Jul-26	08-Jul-26	5609 - SWD, Hol	AW - 96th Ped - F3 - FRP Curb
CON-44920	AW - 96th Ped - F3 - Strip CJ Bulkheads & Curb Face		1 14-Jul-26	14-Jul-26	5609 - SWD, Hol	AW - 96th Ped - F3 - Strip CJ Bulkheads & Curb Face
CON-53651	AW - 96th Ped - F3 - Remove Falsework		2 15-Jul-26	15-Jul-26	5609 - SWD, Hol	AW - 96th Ped - F3 - Remove Falsework
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 4 - RC Slab			7 25-Apr-26	19-Aug-26		7 25-Apr-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 4 - RC Slab
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 4 | Padins & Sub			9 25-Apr-26	19-Aug-26	5609 - SWD, Hol	9 25-Apr-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 4 | Padins & Sub
CON-44550	AW - 96th Ped - F4 - Install CIDH Shafts		6 25-Apr-26	06-May-26	5609 - SWD, Hol	AW - 96th Ped - F4 - Install CIDH Shafts
CON-44560	AW - 96th Ped - F4 - FRP Columns		6 04-May-26	11-May-26	5609 - SWD, Hol	AW - 96th Ped - F4 - FRP Columns
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 4 | Super			7 12-May-26	19-Aug-26		7 12-May-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 4 | Super
CON-44970	AW - 96th Ped - F4 - Install Falsework Girders/Bents/Bent Caps/Posts		3 12-May-26	14-May-26	5609 - SWD, Hol	AW - 96th Ped - F4 - Install Falsework Girders/Bents/Bent Caps/Posts
CON-44980	AW - 96th Ped - F4 - Install Soffit & Safety Rail		2 15-May-26	18-May-26	5609 - SWD, Hol	AW - 96th Ped - F4 - Install Soffit & Safety Rail
CON-44990	AW - 96th Ped - F4 - Form Bent Caps & Edge of Deck		3 19-May-26	21-May-26	5609 - SWD, Hol	AW - 96th Ped - F4 - Form Bent Caps & Edge of Deck
CON-53661	AW - 96th Ped - F4 - Install Bearing Pads & Exp Joint Foam		2 15-Jun-26	16-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F4 - Install Bearing Pads & Exp Joint Foam
CON-45070	AW - 96th Ped - F4 - Install Deck Rebar		4 17-Jul-26	22-Jul-26	5609 - SWD, Hol	AW - 96th Ped - F4 - Install Deck Rebar
CON-45080	AW - 96th Ped - F4 - Form Interior Curb Face		5 23-Jul-26	29-Jul-26	5609 - SWD, Hol	AW - 96th Ped - F4 - Form Interior Curb Face
CON-45100	AW - 96th Ped - F4 - Install Embeds		5 30-Jul-26	05-Aug-26	5609 - SWD, Hol	AW - 96th Ped - F4 - Install Embeds
CON-45110	AW - 96th Ped - F4 - Place Deck Concrete		2 06-Aug-26	07-Aug-26	5609 - SWD, Hol	AW - 96th Ped - F4 - Place Deck Concrete
CON-45120	AW - 96th Ped - F4 - Cure Deck Concrete		7 08-Aug-26	14-Aug-26	5609 - TCD [P]	AW - 96th Ped - F4 - Cure Deck Concrete
CON-45130	AW - 96th Ped - F4 - Strip CJ Bulkheads & Curb Face		1 17-Aug-26	17-Aug-26	5609 - SWD, Hol	AW - 96th Ped - F4 - Strip CJ Bulkheads & Curb Face
CON-53671	AW - 96th Ped - F4 - Remove Falsework		2 18-Aug-26	19-Aug-26	5609 - SWD, Hol	AW - 96th Ped - F4 - Remove Falsework
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | North Ramp - Reinf Conc Cell			6 23-Apr-26	20-Jul-26		6 23-Apr-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | North Ramp - Reinf Conc Cell
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | North Ramp | Fndms & Sub			25 23-Apr-26	28-May-26		25 23-Apr-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | North Ramp | Fndms & Sub
CON-47158	AW - 96th Ped - F5 - Install CIDH		4 23-Apr-26	28-Apr-26	5609 - SWD, Hol	AW - 96th Ped - F5 - Install CIDH
CON-47168	AW - 96th Ped - F5 - Excavate Footing		4 23-Apr-26	04-May-26	5609 - SWD, Hol	AW - 96th Ped - F5 - Excavate Footing
CON-47178	AW - 96th Ped - F5 - Place Grade Footing & Prep CIDH		3 05-May-26	07-May-26	5609 - SWD, Hol	AW - 96th Ped - F5 - Place Grade Footing & Prep CIDH
CON-47188	AW - 96th Ped - F5 - FRP Footing		6 06-May-26	10-May-26	5609 - SWD, Hol	AW - 96th Ped - F5 - FRP Footing
CON-47198	AW - 96th Ped - F5 - Cure Footing		7 20-May-26	25-May-26	5609 - TCD [P]	AW - 96th Ped - F5 - Cure Footing
CON-47208	AW - 96th Ped - F5 - Strip Footing & Backfill		2 27-May-26	28-May-26	5609 - SWD, Hol	AW - 96th Ped - F5 - Strip Footing & Backfill
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | North Ramp | Conc Cell & Curb			9 29-May-26	20-Jul-26		9 29-May-26, Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | North Ramp | Conc Cell & Curb
CON-47218	AW - 96th Ped - F5 - Form Wall Inside Face & Lost Deck		18 29-May-26	11-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F5 - Form Wall Inside Face & Lost Deck
CON-47228	AW - 96th Ped - F5 - Install Rebar		4 12-Jun-26	17-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F5 - Install Rebar
CON-47238	AW - 96th Ped - F5 - Form Wall Outside Face		4 18-Jun-26	23-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F5 - Form Wall Outside Face
CON-47248	AW - 96th Ped - F5 - Place Wall & Deck Concrete		2 24-Jun-26	25-Jun-26	5609 - SWD, Hol	AW - 96th Ped - F5 - Place Wall & Deck Concrete
CON-47258	AW - 96th Ped - F5 - Cure Cell Wall & Deck Concrete		7 26-Jun-26	02-Jul-26	5609 - TCD [P]	AW - 96th Ped - F5 - Cure Cell Wall & Deck Concrete
CON-47268	AW - 96th Ped - F5 - FRP Curb		7 06-Jul-26	14-Jul-26	5609 - SWD, Hol	AW - 96th Ped - F5 - FRP Curb
CON-47278	AW - 96th Ped - F5 - Strip Curb & Walls		2 15-Jul-26	16-Jul-26	5609 - SWD, Hol	AW - 96th Ped - F5 - Strip Curb & Walls
CON-47288	AW - 96th Ped - F5 - Backfill to OG		2 17-Jul-26	20-Jul-26	5609 - SWD, Hol	AW - 96th Ped - F5 - Backfill to OG
Const | Ancillary Works | 96th St Ped Bridge | Sidewalks			27 17-Mar-27	22-Apr-27	5609 - SWD, Hol	27 17-Mar-27, Const | Ancillary Works | 96th St Ped Bridge | Sidewalks

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	maining	Start	Finish	Calendar	
DON-48140	AW - 96th Ped - So Access/Seg C Ramp - Grade for Sidewalk Along Wall C-2		5/17-Mar-27	23-Mar-27	5609 - SWD, Hol	AW - 96th Ped - So Access/Seg C Ramp - Grade for Sidewalk Along Wall C-2
DON-48152	AW - 96th Ped - So Access/Seg C Ramp - Place Sidewalk Along Wall C-2		4/24-Mar-27	29-Mar-27	5609 - SWD, Hol	AW - 96th Ped - So Access/Seg C Ramp - Place Sidewalk Along Wall C-2
DON-48162	AW - 96th Ped - So Access/Seg C Ramp - Grade for Sidewalk Along NB Sepulveda		4/12-Apr-27	15-Apr-27	5609 - SWD, Hol	AW - 96th Ped - So Access/Seg C Ramp - Grade for Sidewalk Along NB Sepulveda
DON-48172	AW - 96th Ped - So Access/Seg C Ramp - Place Sidewalk Along NB Sepulveda		5/16-Apr-27	23-Apr-27	5609 - SWD, Hol	AW - 96th Ped - So Access/Seg C Ramp - Place Sidewalk Along NB Sepulveda
Const | Ancillary Works | 96th St Ped Bridge | Northern Temp Connection to Ex Sidewalk			2/25-Aug-26	25-Aug-26	5609 - SWD, Hol	25-Aug-26, Const | Ancillary Works | 96th St Ped Bridge | Northern Temp Connection to Ex Sidewalk
DON-45190	AW - 96th Ped - North Temp Conn - Grade for Temp Connection		2/20-Aug-26	21-Aug-26	5609 - SWD, Hol	AW - 96th Ped - North Temp Conn - Grade for Temp Connection
DON-45200	AW - 96th Ped - North Temp Conn - Establish Temp Connection to Ex Sidewalk		2/24-Aug-26	25-Aug-26	5609 - SWD, Hol	AW - 96th Ped - North Temp Conn - Establish Temp Connection to Ex Sidewalk
DON-48210	AW - 96th Ped - North Temp Conn - Install Road Fencing		1/26-Aug-26	26-Aug-26	5609 - SWD, Hol	AW - 96th Ped - North Temp Conn - Install Road Fencing
Const | Ancillary Works | 96th St Ped Bridge | Bridge Finishes			8/14-Jan-27	13-May-27	5609 - SWD, Hol	13-May-27, Const | Ancillary Works | 96th St Ped Bridge | Bridge Finishes
DON-45220	AW - 96th Ped - Bridge Finishes - Install Fencing & Handrails on Bridge		20/14-Jan-27	10-Feb-27	5609 - SWD, Hol	AW - 96th Ped - Bridge Finishes - Install Fencing & Handrails on Bridge
DON-45230	AW - 96th Ped - Bridge Finishes - Install Lighting Elements		10/14-Jan-27	27-Jan-27	5609 - SWD, Hol	AW - 96th Ped - Bridge Finishes - Install Lighting Elements
DON-45361	AW - 96th Ped - Bridge Finishes - Install Handrail on Top of Wall C-2		10/30-Jan-27	12-Apr-27	5609 - SWD, Hol	AW - 96th Ped - Bridge Finishes - Install Handrail on Top of Wall C-2
DON-45190	AW - 96th Ped - Bridge Finishes - Install Fencing Along LACC Property		15/23-Apr-27	13-May-27	5609 - SWD, Hol	AW - 96th Ped - Bridge Finishes - Install Fencing Along LACC Property
Const | Ancillary Works | 96th St Ped Path			13/12-Jul-27	15-Jan-28	5609 - SWD, Hol	15-Jan-28, Const | Ancillary Works | 96th St Ped Path
DON-32020	AW - 96th St Ped Path - Sawcut & Remove Pavement		5/12-Jul-27	16-Jul-27	5609 - SWD, Hol	AW - 96th St Ped Path - Sawcut & Remove Pavement
DON-32030	AW - 96th St Ped Path - Excavate to Subgrade		3/19-Jul-27	21-Jul-27	5609 - SWD, Hol	AW - 96th St Ped Path - Excavate to Subgrade
DON-32040	AW - 96th St Ped Path - Install Storm Drainage & Appurtenances		15/22-Jul-27	1-Aug-27	5609 - SWD, Hol	AW - 96th St Ped Path - Install Storm Drainage & Appurtenances
DON-32100	AW - 96th St Ped Path - Install Light Pole Foundations & Conduits		15/19-Aug-27	01-Sep-27	5609 - SWD, Hol	AW - 96th St Ped Path - Install Light Pole Foundations & Conduits
DON-32110	AW - 96th St Ped Path - Install Irrigation Conduits & Piping		8/22-Sep-27	14-Sep-27	5609 - SWD, Hol	AW - 96th St Ped Path - Install Irrigation Conduits & Piping
DON-32120	AW - 96th St Ped Path - Fine Graded Subgrade		5/19-Sep-27	21-Sep-27	5609 - SWD, Hol	AW - 96th St Ped Path - Fine Graded Subgrade
DON-32130	AW - 96th St Ped Path - Place & Fine Graded App Base		8/25-Sep-27	01-Oct-27	5609 - SWD, Hol	AW - 96th St Ped Path - Place & Fine Graded App Base
DON-32140	AW - 96th St Ped Path - Place Curb & Sidewalks		15/04-Oct-27	22-Oct-27	5609 - SWD, Hol	AW - 96th St Ped Path - Place Curb & Sidewalks
DON-38710	AW - 96th St Ped Path - Install Light Poles, Pull & Terminate Wire		5/25-Oct-27	28-Oct-27	5609 - SWD, Hol	AW - 96th St Ped Path - Install Light Poles, Pull & Terminate Wire
DON-38990	AW - 96th St Ped Path - Install Landscape Elements		40/01-Nov-27	05-Jan-28	5609 - SWD, Hol	AW - 96th St Ped Path - Install Landscape Elements
DON-40000	AW - 96th St Ped Path - Site Furnishings		10/05-Jan-28	19-Jan-28	5609 - SWD, Hol	AW - 96th St Ped Path - Site Furnishings
Const | Ancillary Works | Sepulveda Ped Bridge | Site Preparation			15/17-Feb-28	12-Mar-28	5609 - SWD, Hol	12-Mar-28, Const | Ancillary Works | Sepulveda Ped Bridge | Site Preparation
DON-41010	AW - Sep Ped - Mobilize to Hyatt Parking Lot & Install Pest Protection		5/17-Feb-28	23-Feb-28	5609 - SWD, Hol	AW - Sep Ped - Mobilize to Hyatt Parking Lot & Install Pest Protection
DON-41410	AW - Sep Ped - Sawcut & Remove Paved Hyatt		3/24-Feb-28	26-Feb-28	5609 - SWD, Hol	AW - Sep Ped - Sawcut & Remove Paved Hyatt
DON-41020	AW - Sep Ped - Relocate Conflicting Utilities w/in Hyatt Parking Lot		10/27-Feb-28	13-Mar-28	5609 - SWD, Hol	AW - Sep Ped - Relocate Conflicting Utilities w/in Hyatt Parking Lot
Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Fndtns & Sub			31/02-Apr-26	14-May-26		14-May-26, Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Fndtns & Sub
Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Fndtns & Sub | SPB-AW						26-Apr-26, Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Fndtns & Sub | SPB-AW
DON-41800	AW - Sep Ped - SPB-AW - Install CIDH Shaft(s)		3/22-Apr-26	06-Apr-26	5609 - SWD, Hol	AW - Sep Ped - SPB-AW - Install CIDH Shaft(s)
DON-41810	AW - Sep Ped - SPB-AW - Cure Shaft		7/07-Apr-26	13-Apr-26	5609 - TCD [F]	AW - Sep Ped - SPB-AW - Cure Shaft
DON-41820	AW - Sep Ped - SPB-AW - Prep Transition Zone/Set Column Cage & Guy		4/07-Apr-26	10-Apr-26	5609 - SWD, Hol	AW - Sep Ped - SPB-AW - Prep Transition Zone/Set Column Cage & Guy
DON-41830	AW - Sep Ped - SPB-AW - Place Transition Zone Concrete		1/14-Apr-26	14-Apr-26	5609 - SWD, Hol	AW - Sep Ped - SPB-AW - Place Transition Zone Concrete
DON-41840	AW - Sep Ped - SPB-AW - Cure Transition Zone Concrete		7/15-Apr-26	21-Apr-26	5609 - TCD [F]	AW - Sep Ped - SPB-AW - Cure Transition Zone Concrete
DON-41850	AW - Sep Ped - SPB-AW - Form Columns		3/15-Apr-26	17-Apr-26	5609 - SWD, Hol	AW - Sep Ped - SPB-AW - Form Columns
DON-41860	AW - Sep Ped - SPB-AW - Connect Thermal Control System		1/20-Apr-26	20-Apr-26	5609 - SWD, Hol	AW - Sep Ped - SPB-AW - Connect Thermal Control System
DON-41870	AW - Sep Ped - SPB-AW - Place Column Concrete		1/22-Apr-26	22-Apr-26	5609 - SWD, Hol	AW - Sep Ped - SPB-AW - Place Column Concrete
DON-41880	AW - Sep Ped - SPB-AW - Cure Column Concrete		7/23-Apr-26	29-Apr-26	5609 - TCD [F]	AW - Sep Ped - SPB-AW - Cure Column Concrete
DON-41890	AW - Sep Ped - SPB-AW - Strip Column Forms 1 Day Minimum Removal		1/23-Apr-26	23-Apr-26	5609 - SWD, Hol	AW - Sep Ped - SPB-AW - Strip Column Forms 1 Day Minimum Removal
Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Fndtns & Sub | SPB-AE			8/16-Apr-26			14-May-26, Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Fndtns & Sub | SPB-AE
DON-42120	AW - Sep Ped - SPB-AE - Prep for CIDH Install		1/16-Apr-26	16-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	AW - Sep Ped - SPB-AE - Prep for CIDH Install
DON-41850	AW - Sep Ped - SPB-AE - Install CIDH Shaft(s)		3/17-Apr-26	21-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	AW - Sep Ped - SPB-AE - Install CIDH Shaft(s)
DON-41870	AW - Sep Ped - SPB-AE - Cure Shaft		7/22-Apr-26	26-Apr-26	5609 - TCD [F]	AW - Sep Ped - SPB-AE - Cure Shaft
DON-41890	AW - Sep Ped - SPB-AE - Prep Transition Zone/Set Column Cage & Guy		4/22-Apr-26	27-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	AW - Sep Ped - SPB-AE - Prep Transition Zone/Set Column Cage & Guy
DON-41890	AW - Sep Ped - SPB-AE - Place Transition Zone Concrete		1/29-Apr-26	29-Apr-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	AW - Sep Ped - SPB-AE - Place Transition Zone Concrete
DON-42000	AW - Sep Ped - SPB-AE - Cure Transition Zone Concrete		7/30-Apr-26	06-May-26	5609 - TCD [F]	AW - Sep Ped - SPB-AE - Cure Transition Zone Concrete
DON-42010	AW - Sep Ped - SPB-AE - Form Columns		3/30-Apr-26	04-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	AW - Sep Ped - SPB-AE - Form Columns
DON-42020	AW - Sep Ped - SPB-AE - Connect Thermal Control System		1/05-May-26	05-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	AW - Sep Ped - SPB-AE - Connect Thermal Control System
DON-42030	AW - Sep Ped - SPB-AE - Place Column Concrete		1/07-May-26	07-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	AW - Sep Ped - SPB-AE - Place Column Concrete
DON-42040	AW - Sep Ped - SPB-AE - Cure Column Concrete		7/03-May-26	14-May-26	5609 - TCD [F]	AW - Sep Ped - SPB-AE - Cure Column Concrete
DON-42050	AW - Sep Ped - SPB-AE - Strip Column Forms 1 Day Minimum Removal		1/08-May-26	08-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Oly	AW - Sep Ped - SPB-AE - Strip Column Forms 1 Day Minimum Removal
Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Superstructure			18/08-May-26	16-Dec-26		16-Dec-26, Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Superstructure

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Start	Finish	Calendar
Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Superstructure | Falsework		02-May-26	16-Dec-26	
CON-41521	AW - Sep Ped - Erect Falsework - Over SB Sep	1 02-May-26	02-May-26	5609 - Weekends, TDay, Xmas, WC, Cy
CON-41511	AW - Sep Ped - Erect Falsework - Over NB Sep	1 15-May-26	15-May-26	5609 - Weekends, TDay, Xmas, WC, Cy
CON-41531	AW - Sep Ped - Erect Falsework - West of Sep	3 29-Jun-26	01-Jul-26	5609 - SWD, Hol
CON-41501	AW - Sep Ped - Erect Falsework - East of Sep	3 14-Jul-26	16-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy
CON-50101	AW - Sep Ped - Remove Falsework - East of Sep	3 18-Nov-26	30-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy
CON-50111	AW - Sep Ped - Remove Falsework - Over NB Sep	2 05-Dec-26	06-Dec-26	5609 - Weekends, TDay, Xmas, WC, Cy
CON-50121	AW - Sep Ped - Remove Falsework - Over SB Sep	2 12-Dec-26	13-Dec-26	5609 - Weekends, TDay, Xmas, WC, Cy
CON-41513	AW - Sep Ped - Remove Falsework - West of Sep	3 14-Dec-26	16-Dec-26	5609 - SWD, Hol
Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Superstructure | Soffit & Stom		03-May-26	03-May-26	
CON-41512	AW - Sep Ped - Install Soffit & Safety Rail - SB	1 03-May-26	03-May-26	5609 - Weekends, TDay, Xmas, WC, Cy
CON-41522	AW - Sep Ped - Form Ext Girder & OH - SB	6 04-May-26	13-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy
CON-50881	AW - Sep Ped - Install Soffit & Safety Rail - NB	1 17-May-26	17-May-26	5609 - Weekends, TDay, Xmas, WC, Cy
CON-50891	AW - Sep Ped - Form Ext Girder & OH - NB	6 18-May-26	26-May-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy
CON-41532	AW - Sep Ped - Install Soffit Rebar	6 27-May-26	03-Jun-26	5609 - SWD, Hol
CON-41542	AW - Sep Ped - Install Stom Rebar	6 04-Jun-26	11-Jun-26	5609 - SWD, Hol
CON-41552	AW - Sep Ped - Install PT Ducts	4 12-Jun-26	17-Jun-26	5609 - SWD, Hol
CON-41562	AW - Sep Ped - Form Interior Girders & Walkway	9 18-Jun-26	29-Jun-26	5609 - SWD, Hol
CON-41572	AW - Sep Ped - Form Diaphragms & Blockouts	2 30-Jun-26	01-Jul-26	5609 - SWD, Hol
CON-41582	AW - Sep Ped - Place Soffit & Stom Concrete	2 13-Jul-26	14-Jul-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy
CON-41592	AW - Sep Ped - Cure Soffit & Stom Concrete	7 15-Jul-26	21-Jul-26	5609 - TCD (P)
CON-41602	AW - Sep Ped - Strip Interior Girders & Walkways	3 22-Jul-26	24-Jul-26	5609 - SWD, Hol
CON-41512	AW - Sep Ped - Install MEPs in Bridge Cais	10 27-Jul-26	07-Aug-26	5609 - SWD, Hol
Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Superstructure | Deck		10-Aug-26	14-Oct-26	
CON-41622	AW - Sep Ped - Form Laid Deck	5 10-Aug-26	14-Aug-26	5609 - SWD, Hol
CON-41632	AW - Sep Ped - Install Scaffolding & Run Offs	3 17-Aug-26	19-Aug-26	5609 - SWD, Hol
CON-41542	AW - Sep Ped - Install Deck Rebar	5 20-Aug-26	26-Aug-26	5609 - SWD, Hol
CON-41652	AW - Sep Ped - Install Guardrail Embeds	8 27-Aug-26	38-Sep-26	5609 - SWD, Hol
CON-41662	AW - Sep Ped - Install Concrete & MEPs	10 29-Sep-26	22-Sep-26	5609 - SWD, Hol
CON-41672	AW - Sep Ped - Setup Bridge Finishing Machine & Work Bridges	2 23-Sep-26	24-Sep-26	5609 - SWD, Hol
CON-41682	AW - Sep Ped - Dry Run Bridge Finishing Machine	1 25-Sep-26	25-Sep-26	5609 - SWD, Hol
CON-41692	AW - Sep Ped - Place Deck Concrete	2 28-Sep-26	29-Sep-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy
CON-41702	AW - Sep Ped - Cure Deck Concrete	7 30-Sep-26	06-Oct-26	5609 - TCD (P)
CON-41712	AW - Sep Ped - Strip Scaffolding	1 07-Oct-26	07-Oct-26	5609 - SWD, Hol
Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Superstructure | PT		30-Sep-26	16-Nov-26	
CON-50051	AW - Sep Ped - PT - Install PT Standards	2 30-Sep-26	01-Oct-26	5609 - SWD, Hol
CON-50071	AW - Sep Ped - PT - Stress & Lock-off	3 07-Oct-26	09-Oct-26	5609 - SWD, Hol
CON-50081	AW - Sep Ped - PT - Grout PT Ducts	2 12-Oct-26	13-Oct-26	5609 - SWD, Hol
CON-50091	AW - Sep Ped - PT - PPS PT Blockouts	3 14-Oct-26	16-Oct-26	5609 - SWD, Hol
Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Superstructure | Curbs		06-Oct-26	17-Nov-26	
CON-50151	AW - Sep Ped - Prep Curb CJ	4 06-Oct-26	13-Oct-26	5609 - SWD, Hol
CON-50161	AW - Sep Ped - Form Interior Curb Face	4 14-Oct-26	19-Oct-26	5609 - SWD, Hol
CON-50171	AW - Sep Ped - Install Curb Embeds	10 20-Oct-26	02-Nov-26	5609 - SWD, Hol
CON-50181	AW - Sep Ped - Place Curb Concrete	2 03-Nov-26	04-Nov-26	5609 - SWD, Hol
CON-50191	AW - Sep Ped - Strip Curb Forms	2 05-Nov-26	06-Nov-26	5609 - SWD, Hol
CON-50191	AW - Sep Ped - Strip Ext Girder & OH Forms	6 09-Nov-26	17-Nov-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy
Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | Finishes		18-Nov-26	16-Mar-27	
CON-41630	AW - Sep Ped - Install Scaffolding/Suspend Quick-Deck & Temp Railing	6 18-Nov-26	03-Dec-26	5609 - SWD, Hol, TDay, Xmas, WC, Cy
CON-41647	AW - Sep Ped - Install Guardrail Support Posts	15 07-Dec-26	12-Jan-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy
CON-41657	AW - Sep Ped - Install Guardrail Metal Fencing	15 13-Jan-27	02-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy
CON-41667	AW - Sep Ped - Install Handrail	10 03-Feb-27	17-Feb-27	5609 - SWD, Hol
CON-41677	AW - Sep Ped - Install Handrail Lighting	10 16-Feb-27	03-Mar-27	5609 - SWD, Hol
CON-41687	AW - Sep Ped - Install Soffit Lighting & CCTV	5 04-Mar-27	10-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy
CON-41710	AW - Sep Ped - Remove Scaffolding/Suspend Quick-Deck & Temp Railing	4 11-Mar-27	16-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Cy
Const | Ancillary Works | Sepulveda Ped Bridge | Bridge Structure | MEPs		17-Mar-27	20-Apr-27	
CON-41760	AW - Sep Ped - Install Lighting & Electrical Devices	25 17-Mar-27	20-Apr-27	5609 - SWD, Hol
CON-41770	AW - Sep Ped - Install Cameras & Misc Comm Devices	25 17-Mar-27	20-Apr-27	5609 - SWD, Hol

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	meaning	Start	Finish	Calendar
CON-41780	AW - Sep Ped - Install Fire Detection System		15 17-Mar-27	06-Apr-27	5609 - SWD, Hol
CON-41790	AW - Sep Ped - Install Fire Protection System		15 17-Mar-27	06-Apr-27	5609 - SWD, Hol
Const | Ancillary Works | Sepulveda Ped Bridge | East Site					
348	11-Mar-26	01-Oct-27			
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Elevator Tower					
301	11-May-20	27-Jul-27			
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Elevator Tower | Elev Pit					
54	11-May-20	13-Jul-26			
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Elevator Tower | Elev Pit | Fractn					
27	11-May-26	17-Jun-26			
CON-42131	AW - Sep Ped - E Access Stair - Install Pit Foundation CIDH		3 11-May-26	13-May-26	5609 - SWD, Hol
CON-42141	AW - Sep Ped - E Access Stair - Excavate Pit & Prep CIDH		5 14-May-26	20-May-26	5609 - SWD, Hol
CON-42151	AW - Sep Ped - E Access Stair - Install Pit Drainage		4 21-May-26	27-May-26	5609 - SWD, Hol
CON-42161	AW - Sep Ped - E Access Stair - Fine Grade Pit Subgrade		1 28-May-26	25-May-26	5609 - SWD, Hol
CON-42171	AW - Sep Ped - E Access Stair - FRP Pit Invert		6 29-May-26	10-Jun-26	5609 - SWD, Hol
CON-42181	AW - Sep Ped - E Access Stair - Cure Pit Invert		7 11-Jun-26	17-Jun-26	5609 - TCD [P]
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Elevator Tower | Elev Pit | Walls					
11	18-Jun-26	12-Jul-26			
CON-42210	AW - Sep Ped - E Access Stair - FRP Pit Walls		10 18-Jun-26	01-Jul-26	5609 - SWD, Hol
CON-42230	AW - Sep Ped - E Access Stair - Cure Pit Walls		7 02-Jul-26	26-Jul-26	5609 - TCD [P]
CON-42240	AW - Sep Ped - E Access Stair - Strip Pit Walls		2 09-Jul-26	10-Jul-26	5609 - SWD, Hol
CON-42251	AW - Sep Ped - E Access Stair - Backfill Pit		1 09-Jul-26	13-Jul-26	5609 - SWD, Hol
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Highway Structure					
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Highway Structure | Walls					
18	01-Dec-26	01-Jan-27			5609 - SWD, Hol, Tday, Xmas, WC, Oly
CON-42261	AW - Sep Ped - E Access Stair - FRP Walls L1		8 01-Dec-26	14-Dec-26	5609 - SWD, Hol, Tday, Xmas, WC, Oly
CON-42271	AW - Sep Ped - E Access Stair - FRP Walls L2		8 15-Dec-26	08-Jan-27	5609 - SWD, Hol, Tday, Xmas, WC, Oly
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Highway Structure | Str Steel					
25	11-Jan-27	10-Feb-27			5609 - SWD, Hol, Tday, Xmas, WC, Oly
CON-43580	AW - Sep Ped - E Access Stair - Heavy - Install Structural Steel Framing - Elev 1		6 11-Jan-27	18-Jan-27	5609 - SWD, Hol, Tday, Xmas, WC, Oly
CON-43630	AW - Sep Ped - E Access Stair - Heavy - Install Structural Steel Framing - Elev 2		10 11-Jan-27	04-Feb-27	5609 - SWD, Hol, Tday, Xmas, WC, Oly
CON-43710	AW - Sep Ped - E Access Stair - Heavy - Install Elevator Overhead Sheaves		3 02-Feb-27	04-Feb-27	5609 - SWD, Hol, Tday, Xmas, WC, Oly
CON-45020	AW - Sep Ped - E Access Stair - Heavy - Install Upper & Lower Door Overhangs		4 05-Feb-27	10-Feb-27	5609 - SWD, Hol, Tday, Xmas, WC, Oly
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Highway Structure | Roof					
25	11-Feb-27	04-Mar-27			
CON-43591	AW - Sep Ped - E Access Stair - Heavy - Install Strong Towers & Soffit		4 11-Feb-27	17-Feb-27	5609 - SWD, Hol
CON-43601	AW - Sep Ped - E Access Stair - Heavy - FRP Roof		8 18-Feb-27	01-Mar-27	5609 - SWD, Hol
CON-43611	AW - Sep Ped - E Access Stair - Heavy - Cure Roof		7 02-Mar-27	08-Mar-27	5609 - TCD [P]
CON-43621	AW - Sep Ped - E Access Stair - Heavy - Remove Shoring		2 08-Mar-27	10-Mar-27	5609 - SWD, Hol
CON-43631	AW - Sep Ped - E Access Stair - Heavy - Install Roof Waterproofing		10 11-Mar-27	24-Mar-27	5609 - SWD, Hol
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Highway Finishes					
161	02-Apr-27	30-Apr-27			5609 - SWD, Hol
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Highway Finishes | Fireproofing					
27	11-Mar-27	30-Apr-27			5609 - SWD, Hol
CON-43641	AW - Sep Ped - E Access Stair - Heavy - Fireproofing - Install Scaffold & Prot Measures		4 25-Mar-27	30-Mar-27	5609 - SWD, Hol
CON-43651	AW - Sep Ped - E Access Stair - Heavy - Fireproofing - Prepare Surface		5 31-Mar-27	06-Apr-27	5609 - SWD, Hol
CON-43661	AW - Sep Ped - E Access Stair - Heavy - Fireproofing - Apply Primer & Intumescent Coating		16 07-Apr-27	27-Apr-27	5609 - SWD, Hol
CON-43671	AW - Sep Ped - E Access Stair - Heavy - Fireproofing - Remove Scaffold & Prot Measures		3 28-Apr-27	30-Apr-27	5609 - SWD, Hol
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Highway Finishes | MEPs					
48	11-Apr-27	05-May-27			5609 - SWD, Hol
CON-43682	AW - Sep Ped - E Access Stair - Heavy - Install Electrical Systems		5 02-May-27	08-May-27	5609 - SWD, Hol
CON-43692	AW - Sep Ped - E Access Stair - Heavy - Install Pit Sump Pump		4 09-May-27	12-May-27	5609 - SWD, Hol
CON-43610	AW - Sep Ped - E Access Stair - Heavy - Install Highway Roof Drains & Vents		4 03-May-27	06-May-27	5609 - SWD, Hol
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Highway Finishes | Glazing					
60	03-May-27	27-Jul-27			5609 - SWD, Hol, Tday, Xmas, WC, Oly
CON-45030	AW - Sep Ped - E Access Stair - Heavy - Install Glazing Framing System		10 03-May-27	10-May-27	5609 - SWD, Hol, Tday, Xmas, WC, Oly
CON-43640	AW - Sep Ped - E Access Stair - Heavy - Install Highway Upper Glazing		10 17-May-27	28-May-27	5609 - SWD, Hol, Tday, Xmas, WC, Oly
CON-43650	AW - Sep Ped - E Access Stair - Heavy - Install Highway Lower Glazing		4 22-May-27	21-Jul-27	5609 - SWD, Hol, Tday, Xmas, WC, Oly
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Stair Structure					
80	14-Jul-26	23-Nov-26			
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Stair Structure | Fndtns & Sub					
29	14-Jul-26	13-Aug-26			
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Stair Structure | Fndtns & Sub | SPB					
20	14-Jul-26	10-Aug-26			
CON-42590	AW - Sep Ped - E Access Stair - SPB-BE - Install CIDH Shafts		3 14-Jul-26	16-Jul-26	5609 - SWD, Hol
CON-42590	AW - Sep Ped - E Access Stair - SPB-BE - Cure Shaft		7 17-Jul-26	23-Jul-26	5609 - TCD [P]
CON-42600	AW - Sep Ped - E Access Stair - SPB-BE - Prep Transition Zone/Set Column Cage & Guy		4 17-Jul-26	22-Jul-26	5609 - SWD, Hol
CON-42610	AW - Sep Ped - E Access Stair - SPB-BE - Place Transition Zone Concrete		1 24-Jul-26	24-Jul-26	5609 - SWD, Hol
CON-42620	AW - Sep Ped - E Access Stair - SPB-BE - Cure Transition Zone Concrete		7 25-Jul-26	31-Jul-26	5609 - TCD [P]
CON-42630	AW - Sep Ped - E Access Stair - SPB-BE - Form Column		3 27-Jul-26	28-Jul-26	5609 - SWD, Hol
CON-42650	AW - Sep Ped - E Access Stair - SPB-BE - Place Column Concrete		1 03-Aug-26	03-Aug-26	5609 - SWD, Hol

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

SKANSKA FLATIRON

ATMP PRELIMINARY CONSTRUCTION SCHEDULE

Update 20-C

Activity ID	Activity Name	Planning Duration	Start	Finish	Calendar	
CON-42559	AW - Sep Ped - E Access Stair - SPB-BE - Cure Column Concrete	7	04-Aug-26	04-Aug-26	5609 - 7CD [P]	1 AW - Sep Ped - E Access Stair - SPB-BE - Cure Column Concrete
CON-42570	AW - Sep Ped - E Access Stair - SPB-BE - Strip Column Forms 1 Day Minimum Removal	1	04-Aug-26	04-Aug-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - SPB-BE - Strip Column Forms 1 Day Minimum Removal
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Stair Structure | Fndtns & Sub | SPB-C						
CON-42740	AW - Sep Ped - E Access Stair - SPB-CE - Install CIDH Shaft(s)	3	17-Jul-26	21-Jul-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - SPB-CE - Install CIDH Shaft(s)
CON-42750	AW - Sep Ped - E Access Stair - SPB-CE - Cure Shaft	7	23-Jul-26	28-Jul-26	5609 - 7CD [P]	1 AW - Sep Ped - E Access Stair - SPB-CE - Cure Shaft
CON-42760	AW - Sep Ped - E Access Stair - SPB-CE - Prep Transition Zone/Set Column Cage & Guy	4	22-Jul-26	27-Jul-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - SPB-CE - Prep Transition Zone/Set Column Cage & Guy
CON-42770	AW - Sep Ped - E Access Stair - SPB-CE - Place Transition Zone Concrete	1	29-Jul-26	29-Jul-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - SPB-CE - Place Transition Zone Concrete
CON-42780	AW - Sep Ped - E Access Stair - SPB-CE - Cure Transition Zone Concrete	7	30-Jul-26	05-Aug-26	5609 - 7CD [P]	1 AW - Sep Ped - E Access Stair - SPB-CE - Cure Transition Zone Concrete
CON-42790	AW - Sep Ped - E Access Stair - SPB-CE - Form Column	3	30-Jul-26	03-Aug-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - SPB-CE - Form Column
CON-42810	AW - Sep Ped - E Access Stair - SPB-CE - Place Column Concrete	1	06-Aug-26	06-Aug-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - SPB-CE - Place Column Concrete
CON-42820	AW - Sep Ped - E Access Stair - SPB-CE - Cure Column Concrete	7	07-Aug-26	13-Aug-26	5609 - 7CD [P]	1 AW - Sep Ped - E Access Stair - SPB-CE - Cure Column Concrete
CON-42830	AW - Sep Ped - E Access Stair - SPB-CE - Strip Column Forms 1 Day Minimum Removal	1	07-Aug-26	07-Aug-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - SPB-CE - Strip Column Forms 1 Day Minimum Removal
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Stair Structure | Stairways & Landings						
CON-50201	AW - Sep Ped - E Access Stair - Stairs & Landings - FRP Footing	5	14-Aug-26	21-Aug-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Stairs & Landings - FRP Footing
CON-43370	AW - Sep Ped - E Access Stair - Stairs & Landings - Set Stairway Shoring & Soffit	10	24-Aug-26	04-Sep-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Set Stairway Shoring & Soffit
CON-43380	AW - Sep Ped - E Access Stair - Stairs & Landings - Form Stairway EOD	5	09-Sep-26	15-Sep-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Form Stairway EOD
CON-43390	AW - Sep Ped - E Access Stair - Stairs & Landings - Install Stairway Rebar	5	16-Sep-26	22-Sep-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Install Stairway Rebar
CON-43400	AW - Sep Ped - E Access Stair - Stairs & Landings - Set Stairway Risers - Lift 1	4	23-Sep-26	28-Sep-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Set Stairway Risers - Lift 1
CON-43410	AW - Sep Ped - E Access Stair - Stairs & Landings - Place Stairway Concrete - Lift 1	7	29-Sep-26	29-Sep-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Place Stairway Concrete - Lift 1
CON-43420	AW - Sep Ped - E Access Stair - Stairs & Landings - Cure Stairway Concrete - Lift 1	7	30-Sep-26	06-Oct-26	5609 - 7CD [P]	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Cure Stairway Concrete - Lift 1
CON-43430	AW - Sep Ped - E Access Stair - Stairs & Landings - Set Stairway Risers - Lift 2	4	07-Oct-26	12-Oct-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Set Stairway Risers - Lift 2
CON-43440	AW - Sep Ped - E Access Stair - Stairs & Landings - Place Stairway Concrete - Lift 2	7	13-Oct-26	13-Oct-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Place Stairway Concrete - Lift 2
CON-43450	AW - Sep Ped - E Access Stair - Stairs & Landings - Cure Stairway Concrete - Lift 2	7	14-Oct-26	20-Oct-26	5609 - 7CD [P]	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Cure Stairway Concrete - Lift 2
CON-50211	AW - Sep Ped - E Access Stair - Stairs & Landings - Set Stairway Risers - Lift 3	4	21-Oct-26	26-Oct-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Set Stairway Risers - Lift 3
CON-50221	AW - Sep Ped - E Access Stair - Stairs & Landings - Place Stairway Concrete - Lift 3	7	27-Oct-26	27-Oct-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Place Stairway Concrete - Lift 3
CON-50231	AW - Sep Ped - E Access Stair - Stairs & Landings - Cure Stairway Concrete - Lift 3	7	28-Oct-26	33-Nov-26	5609 - 7CD [P]	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Cure Stairway Concrete - Lift 3
CON-43460	AW - Sep Ped - E Access Stair - Stairs & Landings - Strip Stairway Soffit & EOD	3	04-Nov-26	26-Nov-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Strip Stairway Soffit & EOD
CON-43550	AW - Sep Ped - E Access Stair - Stairs & Landings - Install Handrails & Guardrails	10	29-Nov-26	23-Nov-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Stairs & Landings - Install Handrails & Guardrails
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Mechanical Structure						
CON-43590	AW - Sep Ped - E Access Stair - Mach Rm - Excavate for Foundation	3	17-Jul-26	21-Jul-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Excavate for Foundation
CON-43570	AW - Sep Ped - E Access Stair - Mach Rm - Excavate & Shore Sump Pit	3	22-Jul-26	24-Jul-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Excavate & Shore Sump Pit
CON-43590	AW - Sep Ped - E Access Stair - Mach Rm - FRP Sump Pit	5	27-Jul-26	31-Aug-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - FRP Sump Pit
CON-43470	AW - Sep Ped - E Access Stair - Mach Rm - Install JG Conduits & Piping	5	26-Aug-26	12-Aug-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Install JG Conduits & Piping
CON-43480	AW - Sep Ped - E Access Stair - Mach Rm - FRP Machine Room Foundation	3	13-Aug-26	17-Aug-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - FRP Machine Room Foundation
CON-43540	AW - Sep Ped - E Access Stair - Mach Rm - Cure Machine Room Foundation	7	18-Aug-26	24-Aug-26	5609 - 7CD [P]	1 AW - Sep Ped - E Access Stair - Mach Rm - Cure Machine Room Foundation
CON-43490	AW - Sep Ped - E Access Stair - Mach Rm - Install CMU Walls	10	25-Aug-26	08-Sep-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Install CMU Walls
CON-43600	AW - Sep Ped - E Access Stair - Mach Rm - Install Roof Metal Decking	8	09-Sep-26	11-Sep-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Install Roof Metal Decking
CON-43620	AW - Sep Ped - E Access Stair - Mach Rm - Install Roof MEPs	5	14-Sep-26	18-Sep-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Install Roof MEPs
CON-45040	AW - Sep Ped - E Access Stair - Mach Rm - Place Roof Deck Concrete	2	21-Sep-26	22-Sep-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Place Roof Deck Concrete
CON-45060	AW - Sep Ped - E Access Stair - Mach Rm - Cure Roof Deck Concrete	7	23-Sep-26	29-Sep-26	5609 - 7CD [P]	1 AW - Sep Ped - E Access Stair - Mach Rm - Cure Roof Deck Concrete
CON-45050	AW - Sep Ped - E Access Stair - Mach Rm - Install Roofing Material	10	30-Sep-26	13-Oct-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Install Roofing Material
CON-43500	AW - Sep Ped - E Access Stair - Mach Rm - Install Door & Hardware	5	14-Oct-26	21-Oct-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Install Door & Hardware
CON-43510	AW - Sep Ped - E Access Stair - Mach Rm - Install Electrical Devices	15	14-Oct-26	03-Nov-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Install Electrical Devices
CON-43520	AW - Sep Ped - E Access Stair - Mach Rm - Install Fire Protection System	7	14-Oct-26	22-Oct-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Install Fire Protection System
CON-50431	AW - Sep Ped - E Access Stair - Mach Rm - Install HVAC Systems	8	14-Oct-26	23-Oct-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Install HVAC Systems
CON-50461	AW - Sep Ped - E Access Stair - Mach Rm - Install Plumbing Systems	8	14-Oct-26	19-Oct-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Install Plumbing Systems
CON-43530	AW - Sep Ped - E Access Stair - Mach Rm - Install Fire Detection System	4	03-Oct-26	28-Oct-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Install Fire Detection System
CON-50471	AW - Sep Ped - E Access Stair - Mach Rm - Install CCTV & Misc Comms Systems	4	29-Oct-26	03-Nov-26	5609 - 5WD, Hol	1 AW - Sep Ped - E Access Stair - Mach Rm - Install CCTV & Misc Comms Systems
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Elevators						
CON-43810	AW - Sep Ped - East Elev - Holway Survey & Layout	5	01-Jun-27	07-Jun-27	5609 - 5WD, Hol	1 AW - Sep Ped - East Elev - Holway Survey & Layout
CON-43820	AW - Sep Ped - East Elev - Install Guide Rails & Bracing	15	06-Jun-27	28-Jun-27	5609 - 5WD, Hol	1 AW - Sep Ped - East Elev - Install Guide Rails & Bracing
CON-43830	AW - Sep Ped - East Elev - Align / Adjust Guide Rails	5	29-Jun-27	07-Jul-27	5609 - 5WD, Hol	1 AW - Sep Ped - East Elev - Align / Adjust Guide Rails
CON-43840	AW - Sep Ped - East Elev - Install Elev Mach Room Equipment	25	08-Jul-27	11-Aug-27	5609 - 5WD, Hol	1 AW - Sep Ped - East Elev - Install Elev Mach Room Equipment
CON-43850	AW - Sep Ped - East Elev - Build Elevator Cab Platform	10	08-Jul-27	21-Jul-27	5609 - 5WD, Hol	1 AW - Sep Ped - East Elev - Build Elevator Cab Platform
CON-43860	AW - Sep Ped - East Elev - Install Elevator Girts & Dreways	10	22-Jul-27	04-Aug-27	5609 - 5WD, Hol	1 AW - Sep Ped - East Elev - Install Elevator Girts & Dreways
CON-43870	AW - Sep Ped - East Elev - Install Future Boxes, Conduit & Cable in Holway	5	05-Aug-27	18-Aug-27	5609 - 5WD, Hol	1 AW - Sep Ped - East Elev - Install Future Boxes, Conduit & Cable in Holway
CON-43880	AW - Sep Ped - East Elev - Build Out Cab Interior	15	17-Aug-27	07-Sep-27	5609 - 5WD, Hol	1 AW - Sep Ped - East Elev - Build Out Cab Interior

Actual Work Critical Remaining Work Summary
Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-43890	AW - Sep Ped - East Elev - Startup Elevators	5	08-Sep-27	14-Sep-27	5609 - SWD, Hol	AW - Sep Ped - East Elev - Startup Elevators
Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Site Work		47	28-Jul-27	01-Oct-27		Const | Ancillary Works | Sepulveda Ped Bridge | East Site | Site Work
CON-43890	AW - Sep Ped - SW East - Contour & Grade Site	3	29-Jul-27	30-Jul-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	AW - Sep Ped - SW East - Contour & Grade Site
CON-43810	AW - Sep Ped - SW East - Install Site Lighting Inc Fndtn	10	02-Aug-27	13-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	AW - Sep Ped - SW East - Install Site Lighting Inc Fndtn
CON-43920	AW - Sep Ped - SW East - Install Irrigation Piping & Conduit	3	16-Aug-27	18-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	AW - Sep Ped - SW East - Install Irrigation Piping & Conduit
CON-43930	AW - Sep Ped - SW East - Place & Fine Grade Agg Base for Sidewalks	5	19-Aug-27	25-Aug-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	AW - Sep Ped - SW East - Place & Fine Grade Agg Base for Sidewalks
CON-43940	AW - Sep Ped - SW East - Place Sidewalks & Flatwork	10	26-Aug-27	09-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	AW - Sep Ped - SW East - Place Sidewalks & Flatwork
CON-43950	AW - Sep Ped - SW East - Cure Sidewalks & Flatwork	3	10-Sep-27	12-Sep-27	5609 - TCD [P]	AW - Sep Ped - SW East - Cure Sidewalks & Flatwork
CON-43970	AW - Sep Ped - SW East - Install Wayfinding Signage	3	13-Sep-27	15-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	AW - Sep Ped - SW East - Install Wayfinding Signage
CON-43980	AW - Sep Ped - SW East - Install Landscape Elements	15	13-Sep-27	01-Oct-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	AW - Sep Ped - SW East - Install Landscape Elements
CON-43990	AW - Sep Ped - SW East - Clean Up Work Area & Vacate Hyatt Lot	5	16-Sep-27	22-Sep-27	5609 - SWD, Hol, TDay, Xmas, WC, Oy	AW - Sep Ped - SW East - Clean Up Work Area & Vacate Hyatt Lot
Const | Ancillary Works | Sepulveda Ped Bridge | West Site		369	24-Apr-26	15-Oct-27		Const | Ancillary Works | Sepulveda Ped Bridge | West Site
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Elevator Tower		316	24-Apr-26	02-Aug-27		Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Elevator Tower
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Elevator Tower | Elev Pit						Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Elevator Tower | Elev Pit
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Elevator Tower | Elev Pit | Fndtn		27	24-Apr-26	02-Jun-26		Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Elevator Tower | Elev Pit | Fndtn
CON-41030	AW - Sep Ped - W Access Stair - Install Pit Foundation CIDH	3	24-Apr-26	26-Apr-26	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Install Pit Foundation CIDH
CON-41040	AW - Sep Ped - W Access Stair - Excavate Elevator Pit & Prep CIDH	6	29-Apr-26	05-May-26	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Excavate Elevator Pit & Prep CIDH
CON-41050	AW - Sep Ped - W Access Stair - Install Pit Drainage	4	05-May-26	11-May-26	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Install Pit Drainage
CON-41060	AW - Sep Ped - W Access Stair - Fine Grade Pit Subgrade	1	12-May-26	12-May-26	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Fine Grade Pit Subgrade
CON-41070	AW - Sep Ped - W Access Stair - FRP Pit Invert	9	13-May-26	26-May-26	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - FRP Pit Invert
CON-41080	AW - Sep Ped - W Access Stair - Cure Pit Invert	7	27-May-26	03-Jun-26	5609 - TCD [P]	AW - Sep Ped - W Access Stair - Cure Pit Invert
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Elevator Tower | Elev Pit | Walls						Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Elevator Tower | Elev Pit | Walls
CON-41100	AW - Sep Ped - W Access Stair - FRP Pit Walls	10	03-Jun-26	16-Jun-26	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - FRP Pit Walls
CON-41130	AW - Sep Ped - W Access Stair - Cure Pit Walls	7	17-Jun-26	23-Jun-26	5609 - TCD [P]	AW - Sep Ped - W Access Stair - Cure Pit Walls
CON-41140	AW - Sep Ped - W Access Stair - Strip Pit Walls	2	24-Jun-26	25-Jun-26	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Strip Pit Walls
CON-41151	AW - Sep Ped - W Access Stair - Backfill Pit	1	25-Jun-26	26-Jun-26	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Backfill Pit
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Structure		170				Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Structure
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Structure | Walls		15	17-Jun-26	16-Jun-27	5609 - SWD, Hol	Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Structure | Walls
CON-50241	AW - Sep Ped - W Access Stair - FRP Walls L1	9	17-Jun-26	04-Jul-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - FRP Walls L1
CON-50251	AW - Sep Ped - W Access Stair - FRP Walls L1 L2	9	05-Jul-27	14-Jul-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - FRP Walls L1 L2
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Structure | Str Steel		23	15-Jun-27	17-Jun-27	5609 - SWD, Hol	Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Structure | Str Steel
CON-50281	AW - Sep Ped - W Access Stair - Hsly - Install Structural Steel Framing - Elev 1	6	15-Jun-27	22-Jun-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Install Structural Steel Framing - Elev 1
CON-50291	AW - Sep Ped - W Access Stair - Hsly - Install Structural Steel Framing - Elev 2	10	25-Jun-27	05-Jul-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Install Structural Steel Framing - Elev 2
CON-50301	AW - Sep Ped - W Access Stair - Hsly - Install Elevator Overhead Sheaves	3	08-Jul-27	10-Jul-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Install Elevator Overhead Sheaves
CON-50311	AW - Sep Ped - W Access Stair - Hsly - Install Upper & Lower Door Overhangs	4	11-Jul-27	17-Jul-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Install Upper & Lower Door Overhangs
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Structure | Roof		29	19-Jul-27	30-Jul-27		Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Structure | Roof
CON-50321	AW - Sep Ped - W Access Stair - Hsly - Install Shoring Towers & Scaff	4	19-Jul-27	23-Jul-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Install Shoring Towers & Scaff
CON-50331	AW - Sep Ped - W Access Stair - Hsly - FRP Roof	8	24-Jul-27	05-Aug-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - FRP Roof
CON-50341	AW - Sep Ped - W Access Stair - Hsly - Cure Roof	7	05-Aug-27	12-Aug-27	5609 - TCD [P]	AW - Sep Ped - W Access Stair - Hsly - Cure Roof
CON-50351	AW - Sep Ped - W Access Stair - Hsly - Remove Shoring	2	15-Aug-27	16-Aug-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Remove Shoring
CON-50361	AW - Sep Ped - W Access Stair - Hsly - Install Roof Waterproofing	10	17-Aug-27	30-Aug-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Install Roof Waterproofing
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Finishes		04				Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Finishes
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Finishes | Fireproofing		27	31-Jul-27	06-May-27	5609 - SWD, Hol	Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Finishes | Fireproofing
CON-50371	AW - Sep Ped - W Access Stair - Hsly - Fireproofing - Install Scaffold & Prot Measures	4	31-Jul-27	05-Aug-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Fireproofing - Install Scaffold & Prot Measures
CON-50381	AW - Sep Ped - W Access Stair - Hsly - Fireproofing - Prepare Surface	5	08-Aug-27	12-Aug-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Fireproofing - Prepare Surface
CON-50391	AW - Sep Ped - W Access Stair - Hsly - Fireproofing - Apply Primer & Intumescent Coating	15	13-Aug-27	03-May-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Fireproofing - Apply Primer & Intumescent Coating
CON-50401	AW - Sep Ped - W Access Stair - Hsly - Fireproofing - Remove Scaffold & Prot Measures	3	04-May-27	06-May-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Fireproofing - Remove Scaffold & Prot Measures
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Finishes | MEPs						Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Finishes | MEPs
CON-50411	AW - Sep Ped - W Access Stair - Hsly - Install Electrical Systems	3	08-May-27	12-May-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Install Electrical Systems
CON-50421	AW - Sep Ped - W Access Stair - Hsly - Install Pit Pump	4	15-May-27	18-May-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Install Pit Pump
CON-50431	AW - Sep Ped - W Access Stair - Hsly - Install Hoistway Roof Drains & Vents	4	07-May-27	12-May-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Install Hoistway Roof Drains & Vents
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Finishes | Glazing		99	17-May-27	02-Aug-27	5609 - SWD, Hol	Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Hoistway Finishes | Glazing
CON-50441	AW - Sep Ped - W Access Stair - Hsly - Install Glazing Framing System	*01	07-May-27	20-May-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Install Glazing Framing System
CON-43340	AW - Sep Ped - W Access Stair - Hsly - Install Hoistway Upper Glazing	*01	21-May-27	04-Jun-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Install Hoistway Upper Glazing
CON-43350	AW - Sep Ped - W Access Stair - Hsly - Install Hoistway Lower Glazing	4	28-Jul-27	02-Aug-27	5609 - SWD, Hol	AW - Sep Ped - W Access Stair - Hsly - Install Hoistway Lower Glazing
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Stair Structure		50	22-Jul-26	14-Oct-26		Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Stair Structure

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Update 20-C

ATMP Rdwy Imp | Baseline Schedule | UP20 - Partial Relief of
FIFA FW Over Sep / Cent

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-43780	AW - Sep Ped - West Elev - Build Elevator Cab Platform	10	14-Jul-27	27-Jul-27	5609 - SWD, Hol	AW - Sep Ped - West Elev - Build Elevator Cab Platform
CON-43770	AW - Sep Ped - West Elev - Install Elevator Site & Downways	10	25-Jul-27	10-Aug-27	5609 - SWD, Hol	AW - Sep Ped - West Elev - Install Elevator Site & Downways
CON-43780	AW - Sep Ped - West Elev - Install Riser Boxes, Conduit & Cable in Jostway	8	11-Aug-27	20-Aug-27	5609 - SWD, Hol	AW - Sep Ped - West Elev - Install Riser Boxes, Conduit & Cable in Jostway
CON-43790	AW - Sep Ped - West Elev - Build Out Cab Interior	15	23-Aug-27	13-Sep-27	5609 - SWD, Hol	AW - Sep Ped - West Elev - Build Out Cab Interior
CON-43900	AW - Sep Ped - West Elev - Startup Elevators	5	14-Sep-27	20-Sep-27	5609 - SWD, Hol	AW - Sep Ped - West Elev - Startup Elevators
Const | Ancillary Works | Sepulveda Ped Bridge | West Site | Site Work						
CON-41240	AW - Sep Ped - SW West - Contour & Grade Site	3	03-Aug-27	05-Aug-27	5609 - SWD, Hol	AW - Sep Ped - SW West - Contour & Grade Site
CON-41250	AW - Sep Ped - SW West - Install Site Lighting Inc Poles	10	06-Aug-27	19-Aug-27	5609 - SWD, Hol	AW - Sep Ped - SW West - Install Site Lighting Inc Poles
CON-41260	AW - Sep Ped - SW West - Install Irrigation Piping & Conduit	3	20-Aug-27	24-Aug-27	5609 - SWD, Hol	AW - Sep Ped - SW West - Install Irrigation Piping & Conduit
CON-41270	AW - Sep Ped - SW West - Place & Fine Grade Agg Base for Sidewalks	5	25-Aug-27	31-Aug-27	5609 - SWD, Hol	AW - Sep Ped - SW West - Place & Fine Grade Agg Base for Sidewalks
CON-41280	AW - Sep Ped - SW West - Place Sidewalks & Pathwork	15	01-Sep-27	22-Sep-27	5609 - SWD, Hol	AW - Sep Ped - SW West - Place Sidewalks & Pathwork
CON-41290	AW - Sep Ped - SW West - Cure Sidewalks & Pathwork	3	23-Sep-27	25-Sep-27	5609 - SWD, Hol	AW - Sep Ped - SW West - Cure Sidewalks & Pathwork
CON-41310	AW - Sep Ped - SW West - Install Wayfinding Signage	3	27-Sep-27	28-Sep-27	5609 - SWD, Hol	AW - Sep Ped - SW West - Install Wayfinding Signage
CON-41320	AW - Sep Ped - SW West - Install Landscape Elements	18	27-Sep-27	15-Oct-27	5609 - SWD, Hol	AW - Sep Ped - SW West - Install Landscape Elements
Const | Ancillary Works | Sepulveda Ped Bridge | Utility Connection						
CON-41180	AW - Sep Ped - SW Utlis - Install Electrical Ductbank	10	17-Nov-25	02-Dec-25	5609 - SWD, Hol	AW - Sep Ped - SW Utlis - Install Electrical Ductbank
CON-41190	AW - Sep Ped - SW Utlis - Install Water Line & Meter Box	10	17-Nov-25	02-Dec-25	5609 - SWD, Hol	AW - Sep Ped - SW Utlis - Install Water Line & Meter Box
CON-41170	AW - Sep Ped - SW Utlis - Install Sec Distribution System & Prep for Meter	10	03-Dec-25	18-Dec-25	5609 - SWD, Hol	AW - Sep Ped - SW Utlis - Install Sec Distribution System & Prep for Meter
CON-41200	AW - Sep Ped - SW Utlis - LADWP Install Water Meter	15	03-Dec-25	05-Jan-26	5609 - SWD, Hol	AW - Sep Ped - SW Utlis - LADWP Install Water Meter
CON-41180	AW - Sep Ped - SW Utlis - LADWP Install Electric Meter & Establish Service	15	22-Dec-25	19-Jan-26	5609 - SWD, Hol	AW - Sep Ped - SW Utlis - LADWP Install Electric Meter & Establish Service
CON-41210	AW - Sep Ped - SW Utlis - Install Water Line to Distribution System	10	06-Jan-26	19-Jan-26	5609 - SWD, Hol	AW - Sep Ped - SW Utlis - Install Water Line to Distribution System
CON-41220	AW - Sep Ped - SW Utlis - LADWP Establishes Water Service	5	20-Jan-26	26-Jan-26	5609 - SWD, Hol	AW - Sep Ped - SW Utlis - LADWP Establishes Water Service
CON-41230	AW - Sep Ped - SW Utlis - Connect to Sewer / Storm Drain System(s)	18	04-Aug-26	28-Aug-26	5609 - SWD, Hol	AW - Sep Ped - SW Utlis - Connect to Sewer / Storm Drain System(s)
Const | Ancillary Works | Sepulveda Ped Bridge | Systems & Testing						
CON-43690	AW - Sep Ped - Test Fire Protection System	5	07-Apr-27	13-Apr-27	5609 - SWD, Hol	AW - Sep Ped - Test Fire Protection System
CON-43690	AW - Sep Ped - Test Fire Detection System	5	14-Apr-27	20-Apr-27	5609 - SWD, Hol	AW - Sep Ped - Test Fire Detection System
CON-43690	AW - Sep Ped - Test Lighting & Electrical Systems	5	21-Apr-27	27-Apr-27	5609 - SWD, Hol	AW - Sep Ped - Test Lighting & Electrical Systems
CON-43670	AW - Sep Ped - Test CCTV & Misc Camera Systems	5	28-Apr-27	04-May-27	5609 - SWD, Hol	AW - Sep Ped - Test CCTV & Misc Camera Systems
CON-43700	AW - Sep Ped - Perform System Integration Testing	10	05-May-27	16-May-27	5609 - SWD, Hol	AW - Sep Ped - Perform System Integration Testing
Const | Ancillary Works | Sepulveda Ped Bridge | Systems & Testing | Elevators						
CON-43860	AW - Sep Ped - Elev - Final Elevator Adjustments	15	21-Sep-27	11-Oct-27	5609 - SWD SKA [H] Office [P]	AW - Sep Ped - Elev - Final Elevator Adjustments
CON-44030	AW - Sep Ped - Elev - Pre-Test Elevators	3	12-Oct-27	16-Oct-27	5609 - SWD SKA [H] Office [P]	AW - Sep Ped - Elev - Pre-Test Elevators
CON-44040	AW - Sep Ped - Elev - Conduct Elevator State Inspections	2	19-Oct-27	20-Oct-27	5609 - SWD SKA [H] Office [P]	AW - Sep Ped - Elev - Conduct Elevator State Inspections
CON-44050	AW - Sep Ped - Elev - Receive Elevator Operating Permits from State	1	21-Oct-27	21-Oct-27	5609 - SWD SKA [H] Office [P]	AW - Sep Ped - Elev - Receive Elevator Operating Permits from State
Const | Ancillary Works | Sepulveda Ped Bridge | Commissioning						
CON-44000	AW - Sep Ped - Comm - Perform Inspections & Punchlist Work	30	15-Sep-27	26-Oct-27	5609 - SWD, Hol	AW - Sep Ped - Comm - Perform Inspections & Punchlist Work
CON-44010	AW - Sep Ped - Comm - Request & Receive Certificate of Occupancy	20	27-Oct-27	23-Nov-27	5609 - SWD SKA [H] Office [P]	AW - Sep Ped - Comm - Request & Receive Certificate of Occupancy
CON-44020	AW - Sep Ped - Comm - Perform Post Construction Deep Cleaning	16	24-Nov-27	09-Dec-27	5609 - SWD SKA [H] Office [P]	AW - Sep Ped - Comm - Perform Post Construction Deep Cleaning
Const | Additional Roadway Improvements & Restoration						
Const | Additional Roadway Improvements & Restoration | Sepulveda						
Const | Additional Roadway Improvements & Restoration | Sepulveda | South of Century						
Const | ARI & R | Sepulveda | South of Century | Med Barrier Sta 36+46 to Sta 41+85						
CON-27070	ARI - So Sep - Med Bar 36+46 to 41+85 - Demo Pymnt & Rem Barrier	4	04-Mar-30	07-Mar-30	5609 - SWD, Hol, TDay, Xmas, WC, Cy	ARI - So Sep - Med Bar 36+46 to 41+85 - Demo Pymnt & Rem Barrier
CON-27080	ARI - So Sep - Med Bar 36+46 to 41+85 - Install OH Sign Foundation	4	08-Mar-30	13-Mar-30	5609 - SWD, Hol, TDay, Xmas, WC, Cy	ARI - So Sep - Med Bar 36+46 to 41+85 - Install OH Sign Foundation
CON-27090	ARI - So Sep - Med Bar 36+46 to 41+85 - Grdo for Barrier	4	14-Mar-30	19-Mar-30	5609 - SWD, Hol, TDay, Xmas, WC, Cy	ARI - So Sep - Med Bar 36+46 to 41+85 - Grdo for Barrier
CON-27100	ARI - So Sep - Med Bar 36+46 to 41+85 - FRP New Median Barrier	6	20-Mar-30	27-Mar-30	5609 - SWD, Hol, TDay, Xmas, WC, Cy	ARI - So Sep - Med Bar 36+46 to 41+85 - FRP New Median Barrier
CON-27110	ARI - So Sep - Med Bar 36+46 to 41+85 - Prep Subgrade & Place Agg Base	4	28-Mar-30	02-Apr-30	5609 - SWD, Hol, TDay, Xmas, WC, Cy	ARI - So Sep - Med Bar 36+46 to 41+85 - Prep Subgrade & Place Agg Base
CON-27120	ARI - So Sep - Med Bar 36+46 to 41+85 - Place ACP	1	03-Apr-30	03-Apr-30	5609 - SWD, Hol, TDay, Xmas, WC, Cy	ARI - So Sep - Med Bar 36+46 to 41+85 - Place ACP
Const | ARI & R | Sepulveda | South of Century | D Sta 13+68 to SEP Sta 53+56						
CON-27130	ARI - So Sep - D 13+68 to SEP 53+56 - Install Street Lighting Foundations	4	28-Nov-28	03-Dec-28	5609 - SWD, Hol, TDay, Xmas, WC, Cy	ARI - So Sep - D 13+68 to SEP 53+56 - Install Street Lighting Foundations
CON-27140	ARI - So Sep - D 13+68 to SEP 53+56 - Retrace Existing Street Lighting	1	04-Dec-28	04-Dec-28	5609 - SWD, Hol, TDay, Xmas, WC, Cy	ARI - So Sep - D 13+68 to SEP 53+56 - Retrace Existing Street Lighting
CON-27150	ARI - So Sep - D 13+68 to SEP 53+56 - Sawcut & Demo Ex Curb & Pymnt	8	08-Dec-28	18-Dec-28	5609 - SWD, Hol, TDay, Xmas, WC, Cy	ARI - So Sep - D 13+68 to SEP 53+56 - Sawcut & Demo Ex Curb & Pymnt
CON-27160	ARI - So Sep - D 13+68 to SEP 53+56 - Install OH Sign Foundation	4	19-Dec-28	23-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Cy	ARI - So Sep - D 13+68 to SEP 53+56 - Install OH Sign Foundation
CON-27170	ARI - So Sep - D 13+68 to SEP 53+56 - Install Storm Drainage & Appurtenances	15	19-Dec-28	18-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Cy	ARI - So Sep - D 13+68 to SEP 53+56 - Install Storm Drainage & Appurtenances
CON-27180	ARI - So Sep - D 13+68 to SEP 53+56 - Fine Grade Subgrade	4	21-Jan-29	24-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Cy	ARI - So Sep - D 13+68 to SEP 53+56 - Fine Grade Subgrade
CON-27190	ARI - So Sep - D 13+68 to SEP 53+56 - Place Curb & Gutter	6	25-Jan-29	26-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Cy	ARI - So Sep - D 13+68 to SEP 53+56 - Place Curb & Gutter

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Planning	Start	Finish	Calendar	
CON-27200	ARI - So Sep - D 13+68 to SEP 53+56 - Place & Fine Grade Agg Base	4	06-Feb-30	11-Feb-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-27210	ARI - So Sep - D 13+68 to SEP 53+56 - Place ACP	1	12-Feb-30	12-Feb-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | ARI & R | Sepulveda | South of Century | Sep NB - NE to Little Century						
CON-27220	ARI - So Sep - NB - NE to Little Century - Sawcut & Remove Ex Pmnt	5	04-Apr-30	10-Apr-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-28991	ARI - So Sep - NB - NE to Little Century - Install Storm Drainage & Appurtenances	15	11-Apr-30	01-May-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-30001	ARI - So Sep - NB - NE to Little Century - Fine Grade Subgrade	4	02-May-30	07-May-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-30011	ARI - So Sep - NB - NE to Little Century - FRP Barrier	4	08-May-30	13-May-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-30021	ARI - So Sep - NB - NE to Little Century - Place & Fine Grade Agg Base	4	14-May-30	17-May-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-30031	ARI - So Sep - NB - NE to Little Century - Place ACP	1	20-May-30	20-May-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | ARI & R | Sepulveda | South of Century | Sep NB Widening South of NE						
CON-51901	ARI - So Sep - NB - Widening So of NE - Remove Pavements & Place Subgrade	4	01-Nov-29	06-Nov-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51911	ARI - So Sep - NB - Widening So of NE - Place Agg Base	10	07-Nov-29	28-Nov-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51921	ARI - So Sep - NB - Widening So of NE - Place Curb & Gutter	5	28-Dec-29	06-Dec-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51931	ARI - So Sep - NB - Widening So of NE - Place ACP Base Course	2	10-Dec-29	11-Dec-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51941	ARI - So Sep - NB - Widening So of NE - Install Street Lighting & OH Gantry Foundations	4	12-Dec-29	18-Dec-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51951	ARI - So Sep - NB - Widening So of NE - Install OHSS & ITS Gantries	8	19-Dec-29	02-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-51961	ARI - So Sep - NB - Widening So of NE - Install Street Lighting Poles & Fixtures	5	03-Jan-30	09-Jan-30	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | Additional Roadway Improvements & Restoration | Sepulveda | North of Century						
Const | ARI & R | Sepulveda | North of Century | Sep NB - Widening North of 96th						
CON-30041	ARI - No Sep - Widening North of 96th - Install Street Lighting Foundations	5	28-Jan-27	03-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-30051	ARI - No Sep - Widening North of 96th - Relocate Ex Street Lighting	3	04-Feb-27	08-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-30061	ARI - No Sep - Widening North of 96th - Sawcut & Remove Ex Pmnt	5	09-Feb-27	16-Feb-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-30071	ARI - No Sep - Widening North of 96th - Install Storm Drainage & Appurtenances	15	17-Feb-27	09-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-31301	ARI - No Sep - Widening North of 96th - Fine Grade Subgrade	5	10-Mar-27	16-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-31750	ARI - No Sep - Widening North of 96th - Place Curb & Gutter	5	17-Mar-27	23-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-31760	ARI - No Sep - Widening North of 96th - Place & Fine Grade Agg Base	4	24-Mar-27	29-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-31770	ARI - No Sep - Widening North of 96th - Place ACP	1	30-Mar-27	30-Mar-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-41350	ARI - No Sep - Widening North of 96th - Place Sidewalks	8	14-Jun-27	23-Jun-27	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | Additional Roadway Improvements & Restoration | Jetway						
CON-15560	JW - Install MOT Measures on Jetway & Open in Ultimate Configuration	42	16-Jan-29	15-Mar-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | Additional Roadway Improvements & Restoration | Jetway - 98th to 96th						
CON-15570	JW - 96 - 98 - Demo Curb, Gutter & Pavements	3	16-Jan-29	18-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-15580	JW - 96 - 98 - Install Drainage @ HW Corner 98th/Jetway	6	19-Jan-29	26-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-15590	JW - 96 - 98 - Install Street Light/Traffic Signal Fixtures & Conduit	2	23-Jan-29	30-Jan-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-15600	JW - 96 - 98 - Finegrade Subgrade	4	31-Jan-29	05-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-15650	JW - 96 - 98 - Place & Finegrade Agg Base	4	06-Feb-29	09-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-15660	JW - 96 - 98 - Install Curb & Gutter	5	12-Feb-29	16-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-15690	JW - 96 - 98 - Place ACP	1	20-Feb-29	20-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-15780	JW - 96 - 98 - Grade for Sidewalks	3	21-Feb-29	23-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-15800	JW - 96 - 98 - Place Sidewalks	3	25-Feb-29	28-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-16120	JW - 96 - 98 - Set SL/TC Poles & Fixtures	3	01-Mar-29	05-Mar-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
Const | Additional Roadway Improvements & Restoration | Jetway - Century to 98th						
CON-49381	JW - Cen - 98 - Demo Curb, Gutter & Pavements	3	01-Feb-29	05-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49401	JW - Cen - 98 - Install Street Light/Traffic Signal Fixtures & Conduit	2	08-Feb-29	07-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49411	JW - Cen - 98 - Finegrade Subgrade	4	08-Feb-29	13-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49421	JW - Cen - 98 - Place & Finegrade Agg Base	4	14-Feb-29	20-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49431	JW - Cen - 98 - Install Curb & Gutter	5	21-Feb-29	27-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49441	JW - Cen - 98 - Place ACP	1	28-Feb-29	28-Feb-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49451	JW - Cen - 98 - Grade for Sidewalks	3	01-Mar-29	05-Mar-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49461	JW - Cen - 98 - Place Sidewalks	3	05-Mar-29	08-Mar-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	
CON-49471	JW - Cen - 98 - Set SL/TC Poles & Fixtures	3	09-Mar-29	13-Mar-29	5609 - SWD, Hol, TDay, Xmas, WC, Oly	

Actual Work Critical Remaining Work Summary
Remaining Work Milestone



ATMP ROADWAYS IMPROVEMENTS PROJECT cGMP1

Tab 6 Clarifications & Assumptions

March 25, 2025

Prepared by:
Skanska-Flatiron A Joint Venture

SKANSKA | FLATIRON

1.0 PROPOSED DEVIATIONS FROM THE CONTRACT

The following deviations from the prime contract are proposed:

None.

2.0 PROPOSED DEVIATIONS FROM THE DCH

No deviations from LAWA's Design & Construction Handbook are proposed by cGMP1.

3.0 LIST OF SPECIFIC EXCLUSIONS

1. Rock excavation; none anticipated.
2. Costs for any work associated with the below, except 3rd Party Coordination:
 - SoCal Gas relocations
 - Shell Oil relocations
 - 3rd party communication company OH or UG cabling, and pole installation or removal (AT&T, Spectrum, Crown Castle)
 - Relocation of any 5G antennae (by Bureau of Street Lighting)
 - OH or UG cabling/conductor and pole installation and removals (DWP)
3. Painting of any kind except for galvanized metal repair and as required by specifications.
4. Anti-graffiti coating has not been included for exposed faces of retaining walls and abutments. Coatings are deferred to future cGMPs and not considered painting.
5. Crushing or recycling of demolished products (future cGMPs).
6. Removal or improvement of any uncertified fills for the Ramp J embankment.; approximated cost is contemplated in Design-Build Contingency
7. Testing for ADL. May be part of Allowances at LAWA direction.
8. COZEOP officers. COZEOP officers are recommended for worker safety and discussions should be had with Caltrans on the implementation of COZEOP officers during lane restrictions.
9. Restorations of Lots C, E, or any area used as LAWA provide laydown/staging area. To be included in future cGMPs.
10. Exhibit 6.1 provides the escalation structure used to develop cGMP1. Exhibit 6.1 does not contemplate the recently proposed international tariffs; therefore they are not included in the escalation calculation. SFJV excludes tariffs and price impacts associated with tariffs.

4.0 OTHER CLARIFICATIONS & ASSUMPTIONS

4.1 General

1. LAWA agrees not to add, in whole or in part, any scopes of work contemplated for cGMP1, future cGMPs or GMPs, using a unilateral change order process as identified in General Conditions Section GC-60.
2. SFJV has not included any items from the LAWA risk register in Design-Build Contingency.
3. LAWA allowances are included in cGMP1 price. Allowance compensation to be defined as below:
 - All Allowances items, except Partnering and Permits, will be paid with the SFJV Mark-Up of 4.60% and Gross Receipts Tax.
 - The cost of Bonds and Insurance are included in the Direct Cost Lump Sum.
4. Resident Engineer and Construction Support Staff required by Caltrans Cooperative Agreements for Caltrans Encroachment Permit work will be provided by LAWA.
5. Assumptions regarding available work hours where lane closures will be required are provided in Exhibit 6.2.
6. Caltrans will accept the use of Standard Specifications 2023 Edition in lieu of the 2024 Edition.
7. SFJV will not be defined as the generator of any contaminated/hazardous waste materials, unless SFJV generates said waste.

4.2 Schedule

1. Notice To Proceed is assumed to be 7/15/2025. If the date of NTP is earlier than 7/15/2025, LAWA and SFJV to determine if the duration of General Conditions and General Requirements costs is to be increased from sixteen (16) months, or the end period of 12/31/2026 revised.
2. LAWA's provided dates for delivery of Right-of-Way/Right-of-Entry for private and LAWA-operated or LAWA-leased parcels are included as constraints and inform the current construction sequence.
3. cGMP1 is based on the "what-if scenario C" version of monthly schedule Update 20. The schedule articulates activities that can be performed during moratoria.

4. Schedule assumes wall formwork can be completely removed 24 hours after concrete placement and assumes such approach is not in violation of the specifications.
5. Weather day clarifications:
 - o Project schedule does not include weather days.
 - o Throughout the project lifecycle SFJV will be granted non-compensable weather days that will be incorporated into monthly schedule updates, only if it affects the critical activity.
 - o Non-compensable weather days will extend the dates for both interim milestones and project completion dates, only if it affects the critical activity.
6. Schedule assumptions include:
 - o 55 Hour weekend closures on Sepulveda for falsework erection/removal.
 - o 55 Hour weekend closures on Sepulveda for bridge demolition.
 - o 7 Hour weeknight closures (Monday-Friday) on Century Blvd. for bridge falsework erection/removal.
 - o NB Sepulveda can be restricted to 3 lanes while falsework is still in place for Bridges A/D construction.
 - o cGMP1 City Council duration limited to 90 CDs from BOAC date of 4/17/2025.
 - o AT&T maximum splicing duration of 240 CDs from completion of mandreling of conduits.
 - o Parties agree to jointly work thru permitting issues related to improvement of Ramp J uncertified fills as schedule does not include mitigation, details underway with BOE.
 - o Elimination or modification of FIFA moratorium restrictions.
 - o Bridge D2 falsework over Century Blvd. can be in place during the 2028 Olympic/Paralympic moratoria.

4.3 Earthwork

1. Short-term stockpiling of spoils and demolished products to be crushed for re-use in later cGMPs are assumed to occur at Lot E (multiple bid packages).
2. 25,000 CY of existing crushed material at Continental City is available for use and meets specifications for embankment and structure backfill. This material has been allocated to certain elements of the following subcontract bid packages thru subcontract bid package scopes:
 - o CBSP01 Retaining Walls (Wall J-2 structure backfill and Ramp J embankment)
 - o CBSP04 Reinforced Concrete Box Culvert
3. For cost estimating purposes, existing on-site soils were assumed to be not suitable for structure backfill (multiple bid packages).

4. Existing soils in cut areas are suitable as fill under temporary pavements (CBSP06).

4.4 Structures

1. SFJV has assumed architectural texture on exposed abutments and wing walls will be required although not indicated in the design documents. Formliner is assumed to be a standard pattern with limited use (NSP).
2. Architectural texture on exposed retaining walls (CBSP01) is assumed to be fractured fin formliner with:
 - ¾" depth
 - 1 ½" center-to-center pattern repeat
 - ½" peak
 - ½" valley
3. Ground replacement under utility protection concrete at Walls A-1 and A-2B shall extend to a depth of 10' below original ground surface. Utilities identified to remain, and protect-in-place, will require supporting to perform the ground replacement (CBSP01).
4. Type 1-S (MOD) details for Wall A-2A to be used for Wall A-2B (CBSP01).
5. Pricing includes Schematic Design (30%) documents for Bridge D2 and K1 CIDH, D2 Abutment 1, and columns as 60% design documents are under re-design for cost reduction purposes. CIDH for Bridges D2 and K1 are assumed to be 90 feet in length. Abutment CIDH are assumed to be 60 feet in length (multiple bid packages). Pricing to be trued-up at IFC from D-B Contingency or SBF.
6. Pricing includes Schematic Design (30%) for Walls D5 and D6 (CBSP01). Pricing to be trued-up at IFC from D-B Contingency or SBF. The following assumptions are made:
 - 24" CIDH pile length = 60 linear feet per pile, pile details per other DU2A walls
 - Rebar to match design height tables shown in DU2A plan set
7. Subcontract bid package CBW01 (Large Diameter CIDH Piles) has assumed that no test tubes are required to be installed with any CIDH, and no pile integrity testing is required. This bid package specifies that piles must be excavated to tip elevation with temporary casing, mitigating the potential for contaminating the pile concrete with caving soils. Pricing to be trued-up at IFC from D-B Contingency or SBF.

8. Subcontract bid package CBW02 (Small Diameter CIDH Piles) has assumed that no test tubes are required to be installed with any CIDH, and no pile integrity testing is required. Wet conditions are not anticipated with groundwater at approximately 90 feet below ground surface.
9. Subcontract bid package CBSP01 (Retaining Walls) has assumed that no test tubes are required to be installed with any CIDH, and no pile integrity testing is required. Wet conditions are not anticipated with groundwater at approximately 90 feet below ground surface.

4.5 Demolition

1. Salvage and deliver the following items to a LAWA facility within 5 miles of LAX is included in CBSP03 but not identified in design documents:
 - 1 EA pylon X 6' diameter
 - 1 EA pylon x 12' diameter
 - 32' LAX letters (all 3 letters)
 - Unloading of the above
2. Removal of existing building foundations (CBSP 03) shown on AC01-CD1-055 has been assumed to include:
 - Demolition and removal of 200 cubic yards of reinforced concrete at a depth of 15' below ground surface to top of foundation

4.6 General Conditions

1. SFJV staffing levels are included for the period from 9/1/2025 through 12/31/2026. The staffing plan includes staff managing the entire project scope, as currently known, during this time period, and not just the work included in cGMP1.

4.7 General Requirements

1. General Requirements are included for the period from 9/1/2025 through 12/31/2026. The following items have been priced to reflect the full project scope over this duration and not just the work included in cGMP1:
 - Traffic control
 - Survey
 - Environmental Management (excluding crushing/recycling of demolished products)
 - Scheduling staff
 - SWPPP BMP Install & Maintenance

- 3rd Party Coordination staff
 - Building Information Model (BIM) staff
 - Safety staff
 - Temporary Works Engineering staff
2. Costs for temporary sediment and erosion control BMP types beyond standards provided in the SWPPP plans included in the PMP are not included.
 3. Reference attached ATMP ROADWAY IMPROVEMENTS PROJECT cGMP 1 GENERAL REQUIREMENTS BASIS OF NEGOTIATIONS for basis of additional General Requirements costs and assumptions.

4.7.1 Insurance

1. SFJV has been elected by LAWA to furnish a Contractor Controlled Insurance Program (CCIP) providing for General Liability, Workers Compensation and Excess/Umbrella coverage for work performed on behalf of the Project. The CCIP shall only cover and apply to on-site exposures for participants enrolled in the CCIP.
2. A Builders Risk policy with a loss limit of \$500M has been included. SFJV and LAWA to continue discussions of replacement value and sublimits to refine pricing from the insurance markets.
3. Refer to Exhibit 6.3 for a breakdown of coverages, limits, deductibles, and costs. Quotations have been submitted to LAWA via email on 1/22/2025.
4. Refer to Exhibit 6.3 - The insurance premium costs are reimbursed as an allowance and Loss Content costs are included in cGMP Lump sum cost.

4.7.2 Quality

1. Quality Assurance for work performed under Caltrans Encroachment Permit will be by LAWA.
2. PR-13 and PR-14 Pre-Construction (Quality Assurance and Quality Control): The Pre-Construction Quality Assurance and Quality Control requirements no longer apply to the Phase 1 scope of work.

4.7.3 Maintenance of Traffic

1. K-rail style temporary concrete barrier will be acceptable for use.
2. Chain link fence with screen will be mounted on temporary concrete barrier.

4.7.4 Temporary Facilities

1. Integrated Project Management Office costs at the existing City Bus Lot at 96th and Jetway Blvd. are to be reimbursed as an allowance.
2. The laydown area rental costs for the project are reimbursed as an allowance.
3. Refer to CGMP Tab 4 – Costs related to BID ITEM NO. 1,003,400 (Foreman Trailer), BID ITEM NO. 1,003,410 (Graffiti Removal), and BID ITEM NO 1,003,450 (Office & Yard) are included in cGMP Lump sum cost.
4. Laydown areas are assumed as follows:

Laydown Location	Duration		Area (SF)	Lease Type
	Start	End		
T9 Lot	Dec -25	Dec-29	354,000	No Cost
Park One	Sep-25	Dec-27	525,000	No Cost
Lot C – South A & Cell Phone Lot	Sep 25	Dec-29	175,000	No Cost
Lot C – South B	Dec 25	Dec-29	273,000	No Cost
CTA Cloverleafs	Sep 25	Dec-29	87,000	No Cost
Taxi Hold Lot	Oct-25	Dec-29	108,000	No Cost
City Bus Center	Sep-25	Dec-29	94,000	No Cost
Lot E - Dirt	Sep-25	Dec-29	165,000	No Cost
Lot E - Paved	Sep-25	Dec-29	263,900	Lease Cost

cGMP1

ATMP Roadway Improvements Project

ESCALATIONS

Date

12/23/24

Revision

0

YEAR OF EXPENDITURE	DURATION (MONTHS)	BURN
Jul-23 to Jun-24	0	0.00%
Jul-24 to Jun-25	0	0.00%
Jul-25 to Jun-26	10	21.28%
Jul-26 to Jun-27	12	25.53%
Jul-27 to Jun-28	12	25.53%
Jul-28 to Jun-29	12	25.53%
Jul-29 to Dec-29	1	2.13%
TOTAL	47	

DIRECT COST COMPONENT	ANNUAL ESCALATION RATE
Labor + Burden	4.50%
Permanent Materials	3.00%
Consumable Materials	3.00%
Equipment	3.00%
Subcontractors	4.50%
Outside Equipment	3.00%
LAWA Yard Rental	0.00%
TOTAL	

AGGREGATE

17.41%
11.35%
11.35%
11.35%
17.41%
11.35%
0.00%

CRAFT LABOR

YEAR OF EXPENDITURE	DURATION (MONTHS)	BURN
Jul-23 to Jun-24	0	0.00%
Jul-24 to Jun-25	0	0.00%
Jul-25 to Jun-26	10	21.28%
Jul-26 to Jun-27	12	25.53%
Jul-27 to Jun-28	12	25.53%
Jul-28 to Jun-29	12	25.53%
Jul-29 to Dec-29	1	2.13%
TOTAL	47	

Escalation

Aggregate

0.00% 0.00%
4.50% 0.00%
9.20% 1.96%
14.12% 3.60%
19.25% 4.92%
24.62% 6.29%
30.23% 0.64%
17.41%

MATERIALS

YEAR OF EXPENDITURE	DURATION (MONTHS)	BURN
Jul-24 to Jun-25	0	0.00%
Jul-25 to Jun-26	10	21.28%
Jul-26 to Jun-27	12	25.53%
Jul-27 to Jun-28	12	25.53%
Jul-28 to Jun-29	12	25.53%
Jul-29 to Dec-29	1	2.13%
TOTAL	47	

Escalation

Aggregate

3.00% 0.00%
6.09% 1.30%
9.27% 2.37%
12.55% 3.20%
15.93% 4.07%
19.41% 0.41%
11.35%

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ATMP Roadways - Night Shift Work

DATE: 4/22/2024

Row No.	Phase	Area/Location	Work Activity Type	Self Perform/SFJV Sub Support	Reason for Night-Shift	Anticipated Work Window
1	1	World Way North, SkyWay, Vicksburg, 96 Street	SkyWay CO Detour Construction	Yes	Off peak lane closures needed for construction and traffic switches	4 hours, 0000 midnight to 0400
2	1	Roadways A & D within sharded Concourse 0 project limits	CIDH Drill pad prep, CIDH Pile installation, CIDH Quality Inspection, Spoil Removal	Yes	Coordination with CO, HP will work days, SFJV will work nights	12 hour window for sharing site, but will work 8 hour production shift
3	2	Roadways A & D within sharded Concourse 0 project limits	Roadway A& D Retaining Walls, Abutments, columns, Approach Roadways	Yes	Coordination with CO, HP will work days, SFJV will work nights	12 hour window for sharing site, but will work 8 hour production shift
4	2	Sepulveda Blvd, NB & SB	Reconfigure lanes, set K-rail for Bridge work in median	Yes	Off-peak lane closures needed for construction and traffic switches	5 hours, 0000 midnight to 0500
5	2	Sepulveda Blvd. Median work zone	CIDH Drill pad prep, CIDH Pile installation, CIDH Quality Inspection, Spoil Removal	Yes	Off-peak lane closures needed for construction and traffic switches	5 hours, 0000 midnight to 0500
6	2	Sepulveda Blvd. Median work zone	Bridge A & D columns	Yes	Off-peak lane closures needed for construction and traffic switches	5 hours, 0000 midnight to 0500
7	2	Sepulveda Blvd. Median work zone	Bridge A & D Falsework	Yes	Off-peak lane closures needed for construction and traffic switches	5 hours, 0000 midnight to 0500
8	2	98th Street	Bridge A Falsework Traffic Opening Stringers	Yes	Off-peak lane closures needed for construction	8 hours, 2200 to 0600
9	2	Century Blvd	Construct re-alignemnt of Segment J	Yes	Off-peak lane closures needed for construction and traffic switches	4 hours, 0000 midnight to 0400
10	2	Century Blvd	Underground Utilities re-alignment	Yes	Off-peak lane closures needed for construction	4 hours, 0000 midnight to 0400
11	2	Century Blvd	Bridge A CIDH pad prep, CIDH Pile installation, CIDH Quality Inspection, Spoil Removal	Yes	Off-peak lane closures needed for construction	4 hours, 0000 midnight to 0400
12	2	Century Blvd	Bridge A Columns, Abutments, Falsework, Superstructure	Yes	Off-peak lane closures needed for construction	4 hours, 0000 midnight to 0400
13	2	Sepulveda Blvd	Bridge I, demo existing Bridge, Superstructure Construction	Yes	Off-peak lane closures needed for construction	5 hours, 0000 midnight to 0500
Added	3	Roadway A and existing north worldway ramp	Tie in existing Sepulveda Blvd/N Worldway Ramp to new A alignment	Yes	Off-peak lane closures needed for construction and traffic switches	4 hours, 0000 midnight to 0400
14	3	Roadway I and existing Fly-over hook ramp from SB Sepulveda	Temporary Tie-in existing connector to new I Alignment	Yes	Off-peak lane closures needed for construction and traffic switches	4 hours, 0000 midnight to 0400
Added	3	Sepulveda Blvd, NB	Segment C at grade work	Yes	Off-peak lane closures needed for construction	5 hours, 0000 midnight to 0500

15	4	Sepulveda Blvd, SB	Tie-in roadway section to new "A" alignment, Switch traffic	Yes	Off-peak lane closures needed for construction and traffic switches	5 hours, 0000 midnight to 0500
16	4	Sepulveda Blvd, NB	Temp Stripe & K-rail from 96th Street to new 94th Street driveway, construct Widening	Yes	Off-peak lane closures needed for construction and traffic switches	5 hours, 0000 midnight to 0500
17	4	JetWay Blvd SB	Access for construction of Bridge D, adjacent to and overhang at Jetway	Yes	Off-peak lane closures needed for construction	5 hours, 0000 midnight to 0500
Added	4	98th Street	Bridge D Falsework Traffic Opening Stringers	Yes	Off-peak lane closures needed for construction	8 hours, 2200 to 0600
18	4	Century Blvd	Demolish existing fly-over connector hook-ramp	Yes	Off-peak lane closures needed for demolition	4 hours, 0000 midnight to 0400
Added	4	Century Blvd, WB	Tie in the new "I" to WB Century west of Sepulveda	Yes	Off-peak lane closures needed for construction and traffic switches	4 hours, 0000 midnight to 0400
19	4	Century Blvd	Re-configure Century to temporary alignment, Construct portion of Bridge D	Yes	Off-peak lane closures needed for construction and traffic switches	4 hours, 0000 midnight to 0400
Added	5	Sepulveda Blvd	Demolish existing Skyway Bridge	Yes	Off-peak lane closures needed for construction	5 hours, 0000 midnight to 0500
20	5	Century Blvd	Bridge K construction at traffic opening	Yes	Off-peak lane closures needed for construction	4 hours, 0000 midnight to 0400
21	5	Sepulveda Blvd	Demolish existing bridge for construction of Bridge K	Yes	Off-peak lane closures needed for construction	5 hours, 0000 midnight to 0500
22	5	Sepulveda Blvd	Bridge K construction	Yes	Off-peak lane closures needed for construction	5 hours, 0000 midnight to 0500
23	5	Sepulveda Blvd	demolish existing Bridge for construction of Bridge P	Yes	Off-peak lane closures needed for construction	5 hours, 0000 midnight to 0500
24	5	Sepulveda Blvd	Bridge P construction	Yes	Off-peak lane closures needed for construction	5 hours, 0000 midnight to 0500
Added	5	Century Blvd, EB	Bridge P abutment 4 construction	Yes	Off-peak lane closures needed for construction	4 hours, 0000 midnight to 0400
25	5	World Way/Center Way	Roadway K&P tie-in to final alignment, Lane-by-lane or 55 hour extended closure	Yes	Off-peak lane closures needed for construction and traffic switches	4 hours, 0000 midnight to 0400
26	5	Roadway L	Re-stripe, set K-rail to one-lane configuration for widening	Yes	Off-peak lane closures needed for construction and traffic switches	4 hours, 0000 midnight to 0400
27	5	Sepulveda NB/SB	Demolish existing World Way Overcrossing at Sepulveda	Yes	Off-peak lane closures needed for construction	5 hours, 0000 midnight to 0500
28	5	Sepulveda SB	Construct Tie-in, final striping for Roadway D to SB Sepulveda Blvd	Yes	Off-peak lane closures needed for construction and traffic switches	5 hours, 0000 midnight to 0500
29	5	Sepulveda NB/SB	Erect Pedestrian Bridge Superstructure and pour deck	Yes	Off-peak lane closures needed for construction	5 hours, 0000 midnight to 0500
30	6	Sepulveda NB/SB	Construct Bridge M over Sepulveda	Yes	Off-peak lane closures needed for construction	5 hours, 0000 midnight to 0500
Added	6	Segment P	Wall P3 construction	Yes	Off-peak lane closures needed for construction	4 hours, 0000 midnight to 0400 ?
31	6	Sepulveda NB	Construct Tie-in, final striping for Roadway NE from NB Sepulveda Blvd	Yes	Off-peak lane closures needed for construction	5 hours, 0000 midnight to 0500

Exhibit 6.3

Project:	LAWA ATMP Phase II cCGMP1
Bidding Entity:	Skanska Flatiron Joint Venture
Term (Months):	
Project Delivery Method:	Progressive Design Build

Exposures - Phase 2	
CV	\$445,000,000
Payroll - Self Performed	\$48,000,000
Estimated Autos	100

Joint Venture Led CCIP

Coverage - How/Issued By Contract	Limit	Deductible	Rate Basis	Term	Estimated Premium	Surcharges/Assessments	Surplus Lines Tax	Fixed Premium	Loss Contingent	Total Estimated Cost @ Loss Pick	Collateral	Commission
Workers Compensation / Employers Liability Project Specific - JV Only (Policies Issued Annually)	Statutory	\$ 1,000,000	\$ 48,000,000	\$ 1.7612	Term Rate	\$ 845,365	\$ 434,997		\$ 1,280,362	\$ 1,280,362		
Commercial General Liability Project Specific -	\$5,000,000 Occ / \$10,000,000 Agg	\$ 1,000,000	\$ 445,000,000	\$ 4.4615	Term Rate	\$ 1,985,385	\$ 72,277	N/A	\$ 2,057,662	\$ 2,057,662		
Auto Liability - Project Specific (JV Only) Policies Issued Annually	\$2,000,000 CSL	\$ 500,000	100%	\$ 3.667	Term Rate	\$ 855,633	\$ 85	N/A	\$ 855,718	\$ 855,718		Auto x 17 months
Excess Liability Lead \$5m	\$5,000,000	N/A	\$ 445,000,000	\$ 0.2565	Term Rate	\$ 1,141,596		N/A	\$ 1,141,596.15	\$ 1,141,596		
Excess Liability (Project Specific) - 195M x 5M	\$195,000,000	N/A	\$ 445,000,000	\$ 1.2808	Term Rate	\$ 5,699,423		\$ 188,232	\$ 5,887,655.08	\$ 5,887,655		
Professional Liability CPPI Wrap	\$15,000,000 Occ / \$15,000,000 Agg	\$ 1,000,000	\$ 445,000,000	\$ 0.2349	Term Rate	\$ 1,045,398	\$ -	\$ 40,341	\$ 1,085,737	\$ 1,085,737		7.5%
Professional Liability - Excess Wrap	\$10,000,000 Occ / \$10,000,000 Agg	N/A	\$ 445,000,000	\$ 0.1065	Term Rate	\$ 474,086		\$ 18,295	\$ 492,391	\$ 492,391		7.5%
Contractors Pollution Liability (JV Only)	\$10,000,000 Occ / \$10,000,000 Agg	\$ 100,000	\$ 445,000,000	\$ 0.0249	Term Rate	\$ 111,022	\$ -	\$ 4,284	\$ 115,306	\$ 115,306		7.5%
Builders Risk	\$500,000,000 Loss Limit	\$ 250,000	\$ 1,300,000,000	\$ 0.7197	Term Rate	\$ 9,355,775		\$ 148,757	\$ 9,504,532	\$ 9,504,532		10%
Contractor's Equipment Estimate	\$8,000,000	\$ 25,000	\$ 8,000,000	\$ 0.4500	Annual Rate	\$ 84,000		\$ 84,000	\$ 84,000	\$ 84,000		Equip x 17 mos
Broker Fee			\$ 445,000,000	\$ 0.1550	Term Rate	\$ 689,750		\$ 689,750	\$ 689,750	\$ 689,750		
Equipment Floater	Value		\$ 0.19800	Various	\$ -	N/A	N/A		\$ -	\$ -		
Equipment Floater - Long Term Rentals	Value		\$ 1.06300	Various	\$ -	N/A	N/A		\$ -	\$ -		
Equipment Floater - Short Term Rentals	Receipts		\$ 1.06300	Various	\$ -	N/A	N/A					
Personal Property Floater	Value		\$ 0.00144		\$ -	N/A	N/A					
TOTAL									\$ 21,194,709	\$ 21,194,711	\$ 36,188,931	

Loss Aggregate (Comp & GL) = \$36,500,000 Max is for the full CCIP, Shortened for cCGMP 1

Equipment Premium derived from equipment value x annual rate x term months/12

ATMP ROADWAY IMPROVEMENTS PROJECT cGMP 1 GENERAL REQUIREMENTS BASIS OF NEGOTIATIONS

The following documents serve as the basis of negotiations between LAWA and Skanska-Flatiron, A Joint Venture (SFJV) for the General Requirements scope contained within cGMP1. The General Requirements scope definitions are further clarified in the following Project Requirement (PR) worksheets.

The overall term of cGMP1 and duration of General Requirements support services for cGMP1 is from 9/1/2025 through 12/31/2026, a duration of 16 calendar-months.

This basis of negotiations for General Requirements for cGMP1 will be further evaluated for added General Requirements scope and pricing in future cGMPs/GMPs.

If LAWA and SFJV fail to reach agreement on General Requirements support services for subsequent/future cGMPs, then SFJV may choose not to proceed with remaining stages of the Contract for the associated scope of work. In such case, the off-ramp provision of PR-01 (3),(E), (2), (I) will be implemented.

Revisions to this basis of negotiations for General Requirements will be documented below for version control.

Rev. 0	Feb 4, 2025
Rev. 1	Feb 14, 2025
Rev. 2	Mar 21, 2025
Rev. 3	Mar 25, 2025

PROJECT MANAGEMENT AND COORDINATION
<p><u>Reference: PR-02</u></p>
<p><u>Basis of Negotiations:</u></p> <p>SFJV is required to deliver to LAWA any and all design materials. These materials include, but are not limited to: calculations, preliminary drawings, construction drawings, shop drawings, samples, electronic media data, sketches, illustrations, specifications, descriptions, models, mock-ups, and other information SFJV developed, prepared, furnished, or delivered in the prosecution of the design work.</p> <p>Additionally, the construction documents shall include all information required by the building trades to complete the construction of the project, other than such details customarily developed by others during construction.</p> <p>Project management and coordination includes cost for SFJV design staff that will provide shoring, falsework, column guying, and any additional temporary works designs required for construction. PR-02 includes the following staff costs to temporary works design:</p> <ul style="list-style-type: none"> • One (1) Temporary Engineering Design Manager @ 16 months • Two (2) Temporary Engineering Designers @ 27 months total • Two (2) Temporary Engineering Design Checkers @ 27 months <p>Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.</p> <p>Pursuant to previous cost reduction exercises, LAWA and SFJV have agreed to modify PR-18 to indicate that cultural monitoring resources will be provided through an Allowance. No at-risk costs for tribal, archaeological or paleontological monitoring are included in cGMP1.</p> <p>All other staff costs to comply with PR-02 are in General Conditions costs or other cost elements.</p>
<p><u>Payment Provisions:</u></p> <p>The agreed-to amount shall be a lump sum price to be reimbursed in accordance with the agreed-to Schedule of Values.</p>
<p><u>Discussion Dates:</u> Read 1 – January 27, 2025 March 24, 2025</p>

TRAFFIC MANAGEMENT AND COORDINATION

Reference: PR-03

Basis of Negotiations:

SFJV shall conduct all operations in a manner that will minimize impacts and interferences with normal operation of the Airport. SFJV's operations shall cause no unnecessary inconvenience. The access rights of the public shall be considered at all times.

Safe and adequate pedestrian and vehicular access shall be provided and maintained to: fire hydrants; commercial and industrial establishments; churches, schools and parking lots; service stations and motels; hospitals; police and fire stations; and establishments of similar nature.

SFJV shall install and maintain all temporary signage and messaging at all construction barricade locations, access gates, work area access points, etc. as long as the barricades are in place to help direct traffic around work areas and to alternate paths of travel.

Dynamic Lane Closures:

The primary element included in PR-03 is maintenance of traffic and flagging. SFJV's dedicated subcontractor, Fryman Management Inc (FMI), provided pricing for both elements.

Three (3) nighttime traffic control crews and two and one-half (2.5) crews are included. A traffic control crew is defined as two traffic control craft and a traffic control truck. Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.

Attenuator Trucks:

Attenuator trucks with drivers are included with dynamic lane closures to protect workers from the public.

Traffic Control Plans:

Costs for traffic control plan designs (88 locations / 6.25 sheets each) and engineering staff required to support their operations are included. Fifty-nine (59) WTCPs are for dynamic lane closures and twenty-nine (29) WTCPs to implement static work zones based on MOT design. WTCPs prepared by Fryman Management Inc.; reference the attached dynamic lane closure exhibit for basis of number of locations. Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.

Flaggers:

The estimated average number of flaggers provided by FMI is eight (8). They have excluded flagging required for static / long term closures. SFJV has included two (2) additional flaggers for this condition. Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.

Static Work Zones:

PR-03 includes costs for work zone establishment including but not limited to temporary barrier rail (K-rail), temporary striping, crash cushion modules, CMSS, construction signage, and other devices as indicated in staging plans provided in AC-01 (Stages 1A / 1B) only. K-Rail is left in place, as shown in Stage 1B. The K-rail purchase included in cGMP1 represents the maximum use of K-rail shown in AC-01 only (5,870 LF).

Work zone establishment requires temporary signaling and lighting modifications. Costs for this work are included in PR-03 for the temporary work shown in AC-01 only.

Security Guards:

Costs for security guards are included in PR-06. Pursuant to previous cost reduction exercises, LAWA and SFJV have agreed to modify PR-03 to eliminate the requirement to have a minimum of one (1) dedicated security gate guard at any access gate used whenever work is being performed. The revised language would allow unattended, open gates in active work areas in non-AOA areas.

Traffic Management Team:

Costs are included for traffic management team from Fryman Management to manage the anticipated full scope:

- One (1) Sr. MOT Manager @ 16 months
- One Sr. PM @ 16 months
- Two (2) Project Engs. @ 16 months each

Payment Provisions:

The agreed-to amount shall be a lump sum price to be reimbursed in accordance with the agreed-to Schedule of Values.

Discussion Dates:

Read 1 – January 27, 2025
March 24, 2025

SCHEDULING OF THE WORK	
<u>Reference: PR-04</u>	
<u>Basis of Negotiations:</u> <p>SFJV to provide staffing to comply with PR-4, including but not limited to:</p> <ul style="list-style-type: none"> • Monthly CPM schedule updating • Progress reporting • Resource planning • Subcontractor coordination • 6-week look ahead schedule preparation submitted weekly <p>Costs included in General Requirements:</p> <ul style="list-style-type: none"> • One (1) Schedule Compliance Manager @ 16 months + vehicle • One (1) full-time Scheduler @ 16 months + vehicle <p>Hardware and software costs are included in SFJV multiplier as indicated in Exhibit H.</p> <p>Costs are reflective of full anticipated scope from 9/1/2025 through 12/31/2026.</p>	
<u>Payment Provisions:</u> <p>The agreed-to amount shall be a lump sum price to be reimbursed in accordance with the agreed-to Schedule of Values.</p>	
<u>Discussion Dates:</u> <p>Read 1 – January 27, 2025 March 24, 2025</p>	

ALLOWANCES	
<u>Reference:</u> PR-05	
<u>Basis of Negotiations:</u>	
Refer to PR-05	
<u>Payment Provisions:</u>	
Refer to PR-05	
<u>Discussion Dates:</u>	
March 24, 2025	

CONSTRUCTION SITE OFFICES/FIELD FACILITIES AND LAYDOWN AREA
Reference: PR-06
<p><u>Basis of Negotiations:</u></p> <p>SFJV shall assume sole and complete responsibility for the project site in accordance with the contract (GC-40). This includes full responsibility for safety, security, cleanliness, FOD-control, dust-control, Storm Water Pollution Prevention, maintenance, etc. at all construction sites, offices, storage and laydown areas, airside haul routes, employee parking areas, etc.</p> <p>SFJV shall provide graffiti and vandalism control throughout all stages of the project. SFJV shall keep all equipment, offices, storage facilities, and other facilities at the site free of graffiti and vandalism.</p> <p>SFJV shall provide a construction field office in the DESIGN-BUILDER's staging and laydown area for LAWA's sole use. Any other construction site field offices needed by the DESIGN-BUILDER for his/her use shall be supplied by the DESIGN-BUILDER, however, they shall be located within the staging and laydown area site.</p> <p>Included in PR-06 are the following elements:</p> <p>Laydown Area Rentals: To be reimbursed as an Allowance "I". No yard restoration is included in cGMP1.</p> <p>PMO Office: The following costs to be reimbursed by Allowance "H": SFJV has included costs in PR-06 to establish a fifty-five thousand (\$55,000) SF integrated modular office building both SFJV and LAWA/BOE/PMCM staff. Cost includes mobilization of offices and utility hook-ups, decking between buildings, monthly rental, utilities, supplies, janitorial, copiers, coffee and water. Price also includes cubicle purchase/installation and furniture for ninety-five (95) LAWA and PM/CM staff and one-hundred and twenty-five (125) SFJV staff. Forty (40) electrical vehicle charging stations have been included for the PMO.</p> <p>Foremen Trailers: Foremen trailers are also included. Rent and utility consumption costs for foremen trailers is included in cGMP 1 from September 1, 2025, through December 31, 2026.</p> <p>No demobilization of trailers is included in cGMP1.</p> <p>Graffiti Removal: Graffiti removal and fence maintenance are included in PR-06 for cGMP1 from September 1, 2025, through December 31, 2026. Costs include one (1) crew performing maintenance on a half-time basis (168 WD), with equipment.</p> <p>Office/Yard Maintenance: Yard preparation includes nine (9) laydown areas. A yard crew is staffed at five (5) yards for the duration of cGMP1 (September 1, 2025, through December 31, 2026). A material handler will be provided for the bar</p>

reinforcing steel subcontractor at one (1) yard for their use in construction of CIDH cages. No operator is included for this equipment.

Security Guards:

Pursuant to previous cost reduction exercises, LAWA and SFJV have agreed to modify PR-03 to eliminate the requirement to have a minimum of one (1) dedicated security gate guard at any access gate used whenever work is being performed. The revised language would allow unattended, open gates in active work areas in non-AOA areas. Three (3) security guards with vehicles are included on the site full-time, 24 hours per day, 7 days per week. Costs for security guards are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.

PR-06 Section 5.C.2.2 is amended, regarding completing flow and pressure tests at all existing fire hydrants that serve the Project Offices and Laydown areas prior to the start of construction.

Payment Provisions:

The agreed-to amounts for, Foremen trailers, Graffiti Removal, and Office/Yard Maintenance shall be lump sum prices to be reimbursed in accordance with the agreed-to Schedule of Values.

Laydown Area rental and PMO Office costs to be reimbursed as an Allowance.

Discussion Dates:

Read 1 – January 27, 2025

March 24, 2025

UTILITIES
<p><u>Reference:</u> PR-07</p>
<p><u>Basis of Negotiations:</u></p> <p>PR-07 included costs to pothole large diameter CIDH as indicated in subcontract bid package BP# DA5609-0011-CBSP02.</p>
<p><u>Payment Provisions:</u></p> <p>The bid amount authorized by C-letter process shall be a lump sum price to be reimbursed by an agreed-to schedule of values for progress payments for the work.</p>
<p><u>Discussion Dates:</u></p> <p>March 24, 2025</p>

REQUESTS FOR INFORMATION	
<u>Reference:</u> PR-08	
<u>Basis of Negotiations:</u> No specific costs or deliverables are included in cGMP1. Preparation, distribution, and tracking of submittals to be performed by SFJV General Conditions staff. Reference PR-11 for SFJV Design Manager and DESIGNER services.	
<u>Payment Provisions:</u> None. Costs included in other elements.	
<u>Discussion Dates:</u> March 24, 2025	

SUBMITTAL PROCEDURES	
Reference: PR-09	
<u>Basis of Negotiations:</u> No specific costs or deliverables are included in cGMP1. Preparation, distribution, and tracking of submittals to be performed by SFJV General Conditions staff. Reference PR-11 for SFJV Design Manager and DESIGNER services.	
<u>Payment Provisions:</u> None. Costs included in other elements.	
<u>Discussion Dates:</u> March 24, 2025	

PRODUCTS, MATERIAL, AND EQUIPMENT SUBSTITUTIONS
<p><u>Reference:</u> PR-10</p>
<p><u>Basis of Negotiations:</u></p> <p>No specific costs or deliverables are included in cGMP1. Preparation, distribution, and tracking of submittals to be performed by SFJV General Conditions staff. Reference PR-11 for SFJV Design Manager and DESIGNER services.</p>
<p><u>Payment Provisions:</u></p> <p>None. Costs included in other elements.</p>
<p><u>Discussion Dates:</u></p> <p>March 24, 2025</p>

DESIGN MANAGEMENT
<p>References: PR-11 Design Management PR-08 Request For Information PR-09 Submittal Procedures</p>
<p><u>Basis of Negotiations:</u></p> <p>SFJV (DESIGN-BUILDER) to provide one (1) full-time manager to oversee Design Services During Construction (DSDC) for the agreed-to duration of cGMP1 general conditions time-spanned services, 16 months. Cost included in General Conditions.</p> <p>HNTB (DESIGNER) to provide DSDC to SFJV. Services by DESIGNER as detailed below.</p> <p>DSDC shall begin after acceptance of IFC-Ready (or equivalent) documents by LAWA and/or applicable AHJs, unless services are required because of a DESIGNER caused error or omission in the Basic Design Services previously performed under task orders.</p> <p>Costs for DSDCs for Non-Conformance Reports (NCRs) and Field Design Changes (FDCs) are included in Design-Build Contingency.</p> <p>DSDC shall include the following services:</p> <p>Project Management:</p> <ul style="list-style-type: none"> • Monitor DSDC activities. • Review and track project progress, forecasts, expenditures and reporting. • Provide monthly status reports and internal project reviews. • Prepare project invoices. • On-Site Coordination Meetings. • Attend weekly coordination meetings to review status of RFIs, NCRs and shop drawings. • DESIGNER will maintain a document control procedure for its documents. • DESIGNER will maintain DSDC project files using ProjectWise and SharePoint. <p>Field Design Support:</p> <ul style="list-style-type: none"> • DESIGNER shall appoint a qualified, responsible member of the design team to be the contact person for all field-design support services. • DESIGNER shall review and take appropriate action with respect to submittals. Such action will be taken with reasonable promptness to comply with the applicable time requirements. • DESIGNER shall review drawings for temporary work. • DESIGNER shall assist in evaluations of changes in field conditions or unanticipated differing field conditions. • Subsequent to the issuance of Released For Construction (or equivalent) documents and when requested by Client, DESIGNER shall make revisions to the plans and specifications as necessitated by changed field conditions, or as a result of a request by Design-Builder for changes in construction details. Changes made shall meet the requirements of the AHJ and appropriate approvals will be

obtained by DESIGNER/Design-Builder. DESIGNER shall submit changes to Client and AHJ for review. DESIGNER shall resolve all comments before issuing revision.

- DESIGNER shall evaluate and assist in the resolution of work that does not conform to the design documents. Such assistance may include, but is not limited to, rendering a professional opinion regarding the advisability or acceptability of incorporating the nonconforming work in the Project and revising the plans and specifications as required to remedy any nonconforming work.
- DESIGNER shall provide necessary clarifications and interpretations of the design documents, as appropriate to the orderly completion of the respective portions of the construction. Such clarifications and interpretations will be consistent with the intent of, and reasonably inferable from, the design documents.
- DESIGNER shall attend meetings or make observations at the Project site during construction as needed.
- DESIGNER to respond to Requests for Information (RFIs) per the procedures of the Project and visit the Project site as necessary to access conditions.

Shop Drawings, Samples, and Working Drawings:

- DESIGNER shall review and take other appropriate action with respect to, shop drawings and samples which require, but only for general conformance with the information given in the design documents and compatibility with the design concept of the completed Project.

As-Builts:

- Preparation of as-built drawings.

Other DSDC:

- Other DSDC services by DESIGNER include Geotechnical Construction Services such as drilled shaft inspection as mutually agreed between the parties.

Means and Methods:

- DSDC shall not extend to construction means, methods, techniques, sequences, construction quality control, or procedures of construction, nor to Project site safety and security precautions and programs incident thereto.

Reference attached DESIGNER staffing plan for costs included. Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.

Payment Provisions:

The agreed-to amounts shall be lump sum prices to be reimbursed in accordance with the agreed-to Schedule of Values.

Discussion Dates:

Read 1 – January 27, 2025

March 24, 2025

THIRD-PARTY COORDINATION
<p><u>Reference:</u> PR-12</p>
<p><u>Basis of Negotiations:</u></p> <p>SFJV to continue to provide third party coordination services and permitting support as described in PR-12.</p> <p>Costs include:</p> <ul style="list-style-type: none"> • One (1) full-time third-party coordination manager for the duration of the agreed to cGMP1 general conditions time-spanned services, 16 months (Jill Steiner, Steiner Consulting) • One (1) full-time third-party coordinator for the duration of the agreed to cGMP1 general conditions time-spanned services, 16 months (Rick Garrido, Kimberlina Whettam Associates) • One (1) full-time third-party/utility coordinator for the duration of the agreed to cGMP1 general conditions time-spanned services, 16 months (Robert Lazo or equivalent, Steiner Consulting) <p>Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026, and are included in General Requirements.</p>
<p><u>Payment Provisions:</u></p> <p>The agreed-to amounts shall be lump sum prices to be reimbursed in accordance with the agreed-to Schedule of Values.</p>
<p><u>Discussion Dates:</u></p> <p>Read 1 – January 27, 2025 March 24, 2025</p>

QUALITY ASSURANCE
<p><u>Reference: PR-13</u></p>
<p><u>Basis of Negotiations:</u></p> <p>SFJV to perform pursuant to the requirements of PR-13. It is agreed by both parties (LAWA and SFJV) that the Pre-Construction Quality Assurance and Quality Control requirements no longer apply to the Phase 1 scope of work.</p> <p>Costs are provided for in PR-14, except PR-13 welder license where SFJV is requesting an Allowance for the licensing costs.</p>
<p><u>Payment Provisions:</u></p> <p>None – see PR-14.</p>
<p><u>Discussion Dates:</u> Read 1 – January 27, 2025 March 24, 2025</p>

QUALITY CONTROL
<p>Reference: PR-14</p>
<p><u>Basis of Negotiations:</u></p> <p>PR-14 includes a Preconstruction Quality Control Program required by Design-Builder. SFJV has not included any specific personnel or deliverables for this requirement in any task order to date, or cGMP1, other than its Design Quality program. It is agreed by both parties (LAWA and SFJV) that the Pre-Construction Quality Assurance and Quality Control requirements no longer apply to the Phase 1 scope of work. SFJV has already submitted its QA/QC Plan under the initial PR-13/PR-14 requirements. This plan will need to be revised to eliminate Quality Assurance scope.</p> <p>Pursuant to previous cost reduction exercises, LAWA and SFJV have agreed to modify PR-13/14 to eliminate the requirement for a QC Manager to be on-site during the performance of any work.</p> <p>Costs are included for a dedicated QC Manager during standard weekday work hours only and no specific services for preconstruction. No other deviations are included.</p> <p>Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.</p> <p>SFJV Quality Management Staffing – included in General Conditions:</p> <ul style="list-style-type: none"> • One (1) Quality Manager @ 18 months • One (1) Construction Quality Manager @ 18 months • One (1) Civil Quality Manager @ 18 months • One (1) Reinforced Concrete Quality Manager @ 18 months • One (1) Senior Quality Engineer @ 16 months • One (1) Assistant Quality Engineer @ 11 months • Three (3) Quality Administrative/Document Control @ 11 months each • Staff vehicles <p>Subconsultant Inspection and Independent Testing Services – included in General Requirements:</p> <ul style="list-style-type: none"> • Day & Night Lead Inspectors @ 30 months total • One (1) Quality Engineer @ 11.75 months • Day & Night Civil/Structures/Utility Inspectors @ 60 months total • Day & Night Field Technicians @ 74 months total • Lab Technician @ 14.5 months total • Source Inspector @ 10.25 months • Electrical Inspection @ 13.5 months • One (1) on-site testing laboratory • Specialty tests • Staff vehicles <p>Reference attached inspection and testing staffing plan for costs included for the period of September 1, 2025 through December 31, 2026.</p>

Payment Provisions:

The agreed-to amounts shall be lump sum prices to be reimbursed in accordance with the agreed-to Schedule of Values.

Discussion Dates:

Read 1 – January 27, 2025

March 24, 2025

SAFETY
<p><u>Reference: PR-1S</u></p>
<p><u>Basis of Negotiations:</u></p> <p>SFJV to provide qualified safety personnel in accordance with PR-15 to manage self-perform and subcontractor field operations, develop and update construction works plans other relevant safety plans, monitor compliance with both LAWA's Construction Safety Program Requirements and SFJV Safety Plan, provide orientation for all new hires, and provide reporting.</p> <p>Costs included in General Requirements:</p> <ul style="list-style-type: none"> • One (1) full-time general safety manager @ 18 months • One (1) full-time safety manager to support general manager @ 11 months • Two (2) full nighttime safety supervisors @ 11 months each • Two (2) full daytime safety supervisors @ 11 months each • Two (2) full-time safety coordinators @ 11 months each • One (1) full-time safety administrator @ 16 months • Staff vehicles <p>Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.</p> <p>Other safety-related costs for craft including but not limited to drug testing, on-boarding, PPE, and safety meetings are included in General Conditions.</p>
<p><u>Payment Provisions:</u></p> <p>The agreed-to amounts shall be lump sum prices to be reimbursed in accordance with the agreed-to Schedule of Values.</p>
<p><u>Discussion Dates:</u> Read 1 – January 27, 2025 March 24, 2025</p>

SURVEYING
<p><u>Reference:</u> PR-16</p>
<p><u>Basis of Negotiations:</u></p> <p>SFJV to provide construction phase survey only in accordance with PR-16. SFJV shall provide accurate survey as necessary to adequately construct the Project in accordance with the Contract Documents. All work under this section shall be accomplished by or under the direct supervision of a Surveyor with a current California Professional Land Surveyor License.</p> <p>Costs included in General Requirements:</p> <ul style="list-style-type: none"> • One (1) part-time Survey Manager @ 6.5 months + vehicle • One (1) full-time survey crew @ 16 months + vehicle • One (1) part-time survey crew @ 8 months + vehicle <p>Additionally, one (1) full-time grade checker and vehicle is included in cGMP 1. This grade checker will support all construction crews by transferring and preserving the survey layout provided by survey crews to minimize re-staking fees.</p> <p>Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.</p>
<p><u>Payment Provisions:</u></p> <p>The agreed-to amounts shall be lump sum prices to be reimbursed in accordance with the agreed-to Schedule of Values.</p>
<p><u>Discussion Dates:</u></p> <p>Read 1 – January 27, 2025</p>

PORTABLE CONCRETE BATCH PLANT AND CRUSHER	
<u>Reference: PR-17</u>	
<u>Basis of Negotiations:</u> <p>No batch plant or crushing cost is included in cGMP1. However, to satisfy sustainability requirements in PR-20, it is SFJV's intent to crush and recycle all available demolition (concrete, HMA, PCC, aggregate base) generated from construction in future cGMPs.</p> <p>cGMP1 includes costs for knock-down and maintenance of demolition materials being staged at Lot E. Approximately 4,885 CY of demolished materials is hauled to Lot E from removals of sidewalk, parking lots, pavement removal and retaining wall demolition.</p>	
<u>Payment Provisions:</u> <p>The agreed-to amounts shall be lump sum prices to be reimbursed in accordance with the agreed-to Schedule of Values.</p>	
<u>Discussion Dates:</u> <p>Read 1 – January 27, 2025 March 24, 2025</p>	

ENVIRONMENTAL
Reference: PR-18
<p><u>Basis of Negotiations:</u></p> <p>SFJV shall conform to all applicable local, state, and Federal regulations and laws pertaining to water pollution control. SFJV shall conduct and schedule its operations, and follow and implement best management practices, in such a manner as to prevent water pollution, including that by introducing sediments into the receiving water, as defined by National Pollutant Discharge Elimination System (NPDES) permit requirements.</p> <p>Included in PR-18 are the following elements:</p> <p>Water Development:</p> <p>SFJV has included two (2) water tanks to support construction operations. Includes construction water purchase, including water meter rental. Construction water purchase is for:</p> <ul style="list-style-type: none"> • AC-01/AC-02 construction activities only and not entire project scope • General dust control for the anticipated full project scope for the period of September 1, 2025, through December 31, 2026. <p>Jobsite Management:</p> <p>Trash pickup and housekeeping crew is included. Cost includes one (1) crew performing maintenance on a half-time basis (294 WD). Additionally, spill prevention and controls and non-stormwater management is included two (2) days per week to inspect and manage liquids needing dual containment. Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.</p> <p>Temporary Erosion Control Measures:</p> <p>Installation of Best Management Practices (BMPs) are included for the Early Works scope and Main Works Packages. BMPs include hydraulic mulch, temporary construction entrances, check dams, drainage inlet protection, fiber roll and silt fence. Maintenance is included for the anticipated full project scope for the period of September 1, 2025, through December 31, 2026. No removals are included.</p> <p>Temporary Concrete Washout:</p> <p>Temporary concrete washout facilities are included only for the concrete quantity represented by cGMP1.</p> <p>Street Sweeping:</p> <p>Pursuant to previous cost reduction exercises, LAWA and SFJV have agreed to modify PR-18 to eliminate the minimum number of sweepers to be provided to perform the stated requirements for dust control. Two (2) full-time street sweepers are included. Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.</p> <p>Dust Control:</p> <p>Two (2) full-time water trucks are included. Water purchase is included in Water Development. Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.</p>

Temporary Access Roads:

Construction of Temporary Access Road 11 is included in PR-18. This access road is located west of Sepulveda between Segments M and P. Cost includes required earthwork, base and HMA paving. No removal is included in cGMP 1.

Cultural Monitoring:

To be reimbursed by Allowance "N".

Payment Provisions:

The agreed-to amount, excluding Cultural/Archeological Monitoring, shall be a lump sum price to be reimbursed in accordance with the agreed-to Schedule of Values.

Cultural/Archeological Monitoring costs shall be reimbursed as an Allowance.

Discussion Dates:

Read 1 – January 27, 2025

March 24, 2025

REMOVAL AND DISPOSAL OF CONTAMINATED MATERIALS	
<u>Reference:</u> PR-19	
<u>Basis of Negotiations:</u> SFJV has included a Hazardous Materials Management Plan only in cGMP1. It is assumed that any hazardous or contaminated material encountered will be covered under LAWA Allowances. No cost included in cGMP 1.	
<u>Payment Provisions:</u> The agreed-to amounts shall be lump sum prices to be reimbursed in accordance with the agreed-to Schedule of Values.	
<u>Discussion Dates:</u> Read 1 – January 27, 2025 March 24, 2025	

SUSTAINABILITY REQUIREMENTS	
<u>Reference: PR-20</u>	
<u>Basis of Negotiations:</u>	
<p>No specific costs included in PR-20. Costs for compliance with PR-20 are included in other cost elements. Reference PR-27 for costs for general cleaning during construction.</p> <p>Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.</p>	
<u>Payment Provisions:</u>	
<p>None. No costs included.</p>	
<u>Discussion Dates:</u>	
<p>March 24, 2025</p>	

BUILDING INFORMATION MODEL (BIM) AND VIRTUAL DESIGN AND CONSTRUCTION (VDC) COORDINATION
<p><u>Reference: PR-21</u></p>
<p><u>Basis of Negotiations:</u></p> <p>SFJV to provide staffing to comply with modified PR-21. Pursuant to previous cost reduction exercises, LAWA and SFJV have agreed to modify PR-21 to:</p> <ul style="list-style-type: none"> • Eliminate As-Built Model and Reconciled Record Model (RRM) deliverables. • No 4D or 5D model updates during the construction phase. <p>Costs included in General Requirements:</p> <ul style="list-style-type: none"> • One (1) full-time BIM Manager @ 11 months + vehicle • One (1) full-time BIM Engineer @ 11 months + vehicle <p>Hardware and software costs included in SFJV multiplier as indicated in Exhibit H.</p> <p>Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.</p>
<p><u>Payment Provisions:</u></p> <p>The agreed-to amounts shall be lump sum prices to be reimbursed in accordance with the agreed-to Schedule of Values.</p>
<p><u>Discussion Dates:</u> Read 1 – January 27, 2025 March 24, 2025</p>

GUARANTEED MAXIMUM PRICE (GMP) PROPOSALS	
Reference: PR-22	
<u>Basis of Negotiations:</u> No specific costs or deliverables are included in cGMP1. Deliverables are included in design and preconstruction task orders.	
<u>Payment Provisions:</u> None. No costs included.	
<u>Discussion Dates:</u> March 24, 2025	

PHOTOGRAPHS AND VIDEO DOCUMENTATION
<p><u>Reference: PR-24</u></p>
<p><u>Basis of Negotiations:</u></p> <p>Preconstruction Photographs: Before starting construction, take photographs of project site and surrounding properties, including existing items to remain, items to be salvaged, and items to be demolished. The entire site shall be documented, including adjacent areas to the construction. Include haul routes, laydown areas, and other areas that could be affected by the work.</p> <p>Periodic Construction Photographs: Provide twenty (20) to forty (40) photographs monthly, coinciding with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken. Photographs should only document areas that have been subject to construction change since the last application for payment.</p> <p>Preconstruction Video: Before starting construction, record video of project site and surrounding properties from different vantage points, as directed by LAWA's representative.</p> <p>Recording: During key on-site activities, take video of areas of site under construction that documents the interrelationships between the site and adjacent facilities. Video must cover areas affected by construction.</p> <p>Install and connect minimum six (6) digital video cameras at specific locations and vantage points designated by LAWA. Webcams shall be operational prior to mobilization and shall operate continuously through project completion. Use webcam images to produce a time-lapse video of the entire construction project taken from a constant vantage point.</p> <p>Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.</p> <p>Pursuant to previous cost reduction exercises, LAWA and SFJV have agreed to modify PR-24 to eliminate the requirement for the Design-Builder to provide aerial photography.</p>
<p><u>Payment Provisions:</u></p> <p>The agreed-to amounts shall be lump sum prices to be reimbursed in accordance with the agreed-to Schedule of Values.</p>
<p><u>Discussion Dates:</u> Read 1 – January 27, 2025 March 24, 2025</p>

PROJECT RECORD DOCUMENTS	
<u>Reference:</u>	PR-25
<u>Basis of Negotiations:</u>	SFJV shall meet the requirements of PR-25.
<u>Payment Provisions:</u>	The agreed-to amounts shall be lump sum prices to be reimbursed in accordance with the agreed-to Schedule of Values.
<u>Discussion Dates:</u>	March 24, 2025

COMMISSIONING AND TRAINING	
Reference: PR-26	
<p><u>Basis of Negotiations:</u></p> <p>No costs for any specific deliverables, or startup and testing costs, are included in PR-26 for work in CGMP1.</p> <p>SFIV has included a Commissioning Manager in the General Conditions costs for work to be performed in future cGMPs.</p>	
<p><u>Payment Provisions:</u></p> <p>Payment for Commissioning Manager to be included in other General Conditions staffing Schedule of Values items.</p>	
<p><u>Discussion Dates:</u> March 24, 2025</p>	

PROJECT CLOSEOUT
<p><u>Reference:</u> PR-27</p>
<p><u>Basis of Negotiations:</u></p> <p>SFJV to provide general cleaning during construction as indicated in PR-27 Section 3.C.4.c.1).</p> <p>A two (2) person labor crew, including vehicle, is included in PR-27 for cGMP1. Costs are reflective of the anticipated full project scope for the period of September 1, 2025, through December 31, 2026.</p>
<p><u>Payment Provisions:</u></p> <p>The agreed-to amounts shall be lump sum prices to be reimbursed in accordance with the agreed-to Schedule of Values.</p>
<p><u>Discussion Dates:</u></p> <p>Read 1 – January 27, 2025 March 24, 2025</p>



ATMP ROADWAYS IMPROVEMENTS PROJECT cGMP1

Tab 7 Procurement & Packaging Plan

March 25, 2025

Prepared by:
Skanska-Flatiron A Joint Venture

SKANSKA | FLATIRON

1.0 LIST & DESCRIPTION OF BID PACKAGES

The strategy for early works scopes to be included in cGMP1 was developed with LAWA in June 2024 and memorialized in Field Directive 009 dated June 24, 2024. Scopes were refined through November 2024, based on design progression, and permitting strategies and feedback. Scopes were procured prior to finalizing cGMP1 to minimize procurement risks. Scopes were broken into fourteen (14) subcontract bid packages and procured using three (3) procurement types:

- Negotiated Self-Perform (NSP)
- Competitively Bid Self-Perform (CBSP)
- Competitively Bid Work (CBW)

Subcontract bid packages were prepared and submitted for review by LAWA. CBSP and CBW packages were developed with lowest responsive and responsible bidder criteria.

BID PACKAGE ID	SFJV CODE	BID PACKAGE DESCRIPTION
A. NEGOTIATED SELF-PERFORM WORK (NSP)		
N/A	NSP1	ABUTMENTS & COLUMNS
N/A	NSP2	BRIDGE FALSEWORK (PROCUREMENT ONLY)
N/A	NSP3	SUBCONTRACTOR SUPPORT
B. COMPETITIVELY BID SELF-PERFORM WORK (CBSP)		
BP #DA5609-0011	CBSP02	POTHOLING OF LARGE DIAMETER CIDH
BP #DA5609-0012	CBSP03	CIVIL/STRUCTURAL DEMOLITION
BP #DA5609-0013	CBSP04	REINFORCED CONCRETE BOX CULVERT
BP #DA5609-0014	CBSP01	RETAINING WALLS
BP #DA5609-0015	CBSP05	STORM DRAIN & MINOR STRUCTURES
BP #DA5609-0016	CBSP06	EARTHWORK & SITE CIVIL
C. COMPETITIVELY BID WORK (CBW)		
BP #DA5609-0003	CBW01	LARGE DIAMETER CIDH PILES
BP #DA5609-0004	CBW02	SMALL DIAMETER CIDH PILES AT BRIDGE ABUTMENTS
BP #DA5609-0005	CBW04	BAR REINFORCING STEEL
BP #DA5609-0006	CBW05	TREE REMOVAL
BP #DA5609-0007	CBW06	ELECTRICAL & COMMUNICATION DUCTBANKS
BP #DA5609-0008	CBW07	WATERLINES
BP #DA5609-0009	CBW08	ASPHALT PAVING
BP #DA5609-0010	CBW10	TREE REMOVAL

BuildingConnected was the online platform selected to host, manage, and receive bids. SFJV developed all subcontract bid package documents. SFJV administered the bid process for CBW packages, and LAWA managed the CBSP bids.

SFJV also procured material, vendors, and support services for NSP and General Requirements as indicated below. SFJV provided LAWA with quotes and its selections on February 11, 2025.

NSP/GR	MATERIAL/VENDOR/SERVICE
NSP	Bridge Bearings
NSP	Isolation Casings
NSP	Ready-Mix Concrete
NSP	Formliner
NSP	Timber Forms
NSP	Column Forms
GR	Temporary Erosion Control Materials
NSP	Falsework Material
GR	Traffic Control Material
GR	Temporary Street Lighting & Traffic Signals
GR	Pre-construction & Progress Surveys/Photos/Videos
GR	Temporary Fencing
GR	Security Guards
GR	Webcam Services
GR	Construction Survey
GR	Street Sweeping
NSP	Trucking
GR	Water Truck Services
NSP	Concrete Pumping

2.0 BIDDING AND AWARD SCHEDULE

Reference Exhibit 7.1 for the bidding schedule. Since all packages were bid prior to cGMP1 execution, final package award and subcontract execution will occur after LAWA and SFJV have executed a Contract Amendment for cGMP1.

3.0 DRAFT BID TABULATION SUMMARY

Reference Exhibit 7.2 for the bid tabulation summary intended to be used for procurement for the CBW bid packages administered by SFJV.

4.0 PROPOSED SELF-PERFORM WORK

SFJV intends to self-perform the following packages using the NSP process. Refer to Tab 3 for more detailed information regarding the scopes:

- Bridge Columns

Design	Bridge	Description
DU02A 60%	A	Bridge A Bent 2
		Bridge A Bent 3
		Bridge A Bent 4
		Bridge A Bent 5
		Bridge A Bent 6
		Bridge A Bent 7
		Bridge A Bent 8

		Bridge A Bent 9
		Bridge A Bent 10 (Straddle Bent)
		Bridge A Bent 11
DU02A 60% (cont.)	A (cont.)	Bridge A Bent 12
		Bridge A Bent 13
		Bridge A Bent 14
		Bridge A Bent 15
		Bridge A Bent 16
		Bridge A Bent 17
		Bridge A Bent 18
		Bridge A Bent 19
		Bridge A Bent 20
		Bridge A Bent 21
		Bridge A Bent 22
		Bridge A Bent 23
		Bridge A Bent 24
		Bridge A Bent 25
DU02A 60%	D1	Bridge D1 Bent 2
		Bridge D1 Bent 3
		Bridge D1 Bent 4
		Bridge D1 Bent 5
		Bridge D1 Bent 6
SD 30%	D2	Bridge D2 Bent 2
		Bridge D2 Bent 3
		Bridge D2 Bent 4
		Bridge D2 Bent 5
		Bridge D2 Bent 6
		Bridge D2 Bent 7
		Bridge D2 Bent 8
		Bridge D2 Bent 9
		Bridge D2 Bent 10
		Bridge D2 Bent 11
SD 30%	K1	Bridge K1 Bent 12
		Bridge K1 Bent 13
		Bridge K1 Bent 14
DU01 60%	G	Bridge G Bent 2
		Bridge G Bent 3
		Bridge G Bent 4
DU04 60%	I	Bridge I Bent 2
		Bridge I Bent 3
DU04 60%	K	Bridge K Bent 2
		Bridge K Bent 3
DU04 60%	L	Bridge L Bent 6
		Bridge L Bent 7
		Bridge L Bent 8
		Bridge L Bent 9
		Bridge L Bent 72 WA
		Bridge L Bent 72 W

		Bridge L Bent 73 W
		Bridge L Bent 74 W
		Bridge L Bent 75 W
DU04 60%	M	Bridge M Bent 1
		Bridge M Bent 2
DU04 60%	P	Bridge P Bent 2
		Bridge P Bent 3
PB01 60%	Sepulveda Pedestrian Bridge	Sepulveda POC Bent AE
		Sepulveda POC Bent BE
		Sepulveda POC Bent CE
		Sepulveda POC Bent AW
		Sepulveda POC Bent BW
		Sepulveda POC Bent CW
PB01 60%	96 th St Pedestrian Bridge	96 POC Bent 1
		96 POC Bent 2
		96 POC Bent 3
		96 POC Bent 4
		96 POC Bent 5
		96 POC Bent 6
		96 POC Bent 7
		96 POC Bent 8
		96 POC Bent 9

- Bridge Abutments

Abutment ID Identification	Design Unit	
Bridge A Abutment 1	DU02A	60%
Bridge A Abutment 9F	DU02A	60%
Bridge A Abutment 10C	DU02A	60%
Bridge D1 Abutment 7	DU02A	60%
Bridge D2 Abutment 1	SD	30%
Bridge G Abutment 1	DU01	60%

- Subcontractor Support

- Grading of work pad for large diameter CIDH pile subcontractor
- Removal of asphalt/concrete pavements and hardscapes for large diameter and abutment CIDH pile subcontractors
- Furnish and place large diameter CIDH pile concrete from construction joint to cut-off
- Removal of large diameter CIDH pile slip-in casings to below grade by torch cutting; slip-in casings left behind by large diameter CIDH pile subcontractor

- Export of CIDH spoils from large diameter and abutment CIDH pile subcontractors
- Preparation of abutment CIDH piles after installation thru overburden
- Backfilling of abutment CIDH piles after drilling thru overburden
- Unloading and hoisting for rebar subcontractor
- Scaffolding for rebar subcontractor access at abutments

[illegible]

Skanska Flatiron A Joint Venture
BID OPENING

Exhibit 7.2

ATMP Roadways BP #DA5609

Engineers Estimate:
Addenda Total:
Bid Opening Date, Time
Location:

LAWA Contract # DA 5609
DBE Goal

7301 World Way West - 2nd floor

BID SUBMITTAL		Bidder No. 1	Bidder No. 2	Bidder No. 3	Bidder No. 4	Bidder No. 5	Bidder No. 6	Bidder No. 7	Bidder No. 8	Bidder No. 9
Bidder Name (in Order Opened):										
No. Addenda Acknowledged										
License No.										
Fed Tax ID No.										
DUNS NO.										
DIR No.										
EMR 3 Year Average Rate										
EMR 3 Year Data										
Signed										
Lump Sum Price										
1 Bid Guaranty - Bid Bond or Check 10% of Bid		pages								
2 DBE Commitment Form		1 page								
DBE Commitment %										
3 Non-Collusion Affidavit		1 page								
4 Prohibited Contributors (Bidders) CEC Form 55		3 pages								
5 Bidders Certification LA CEC Form 50		1 page								
6 Subcontractor Responsibility Program Questionnaire		pages								
LAWA Contractor Responsibility Program Pledge of Compliance		1 page								
7 Equal Benefits Ordinance Compliance Affidavit		2 pages								
8 Iran Contracting Act of 2010 Compliance Affidavit		1 page								
9 FR-4 Buy American Preference		3 pages								
10 FR-11 Suspension, Debarment Certification		page								
11 FR-12 Certification Assurance DBE Participation		page								
12 FR-14 Bidder's Statement of Previous Contracts		page								
13 FR-16 Trade Restrictions Clause		2 pages								
14 FR-19 Prohibition of Segregated Facilities		1 page								
15 FR-23 Tax Delinquency & Felony Conviction		1 page								
16 PLA Letter of Assent		1 page								
17 Consent Form (Subcontract)		1 page								

No determination of responsive or responsible bidder will be made at this bid opening. These determinations will be made after a thorough review of the bid package and all calculations have been verified.

BID OPENING ATTENDANCE Skanska Flatiron A JV

LAWA

HDR

Date:

Sermaine Naumann-Chau, Procurement

Jeremy Wiest

Azzam Saad



ATMP ROADWAYS IMPROVEMENTS PROJECT cGMP1

Tab 8 Inclusivity Plan

March 25, 2025

Prepared by:
Skanska-Flatiron A Joint Venture

SKANSKA | FLATIRON

INSTRUCTIONS FOR SUBCONTRACTOR PARTICIPATION PLAN

ATTENTION:

You MUST list ALL anticipated subcontractors, regardless of their dollar amount or percent proposed, and regardless of whether they are certified or not.

You MUST fill out ALL applicable fields completely for the Bidder/Proposer and all subcontractors. Failure to provide complete and legible information on this form may result in your firm not receiving full certification credit. You may add pages as needed.

Project Title – The name of the project at the time of bid or proposal.

Bid/Proposal Amount – Total amount bidder/proposer proposed for the project.

Company Information – The complete name, address, phone number (including area code), Federal Tax Identification Number, email and contact person for the bidder/proposer and each subcontractor, vendor or supplier.

- **Ethnicity** – African American, Hispanic American, Native American, Asian-Pacific Islander, Subcontinent Asian Indian, Asian American, Aleut, Eskimo, Caucasian

- **Gender** – Male, Female

- **Certification Type*** –

ACDBE (Airport Concession Disadvantaged Business Enterprise)

DBE (Disadvantaged Business Enterprise)

DVBE (Disabled Veteran Business Enterprise)

LBE (Local Business Enterprise)

LSBE (Local Small Business Enterprise)**

MBE (Minority Business Enterprise)

SBE (Small Business Enterprise)

WBE (Woman Business Enterprise)

*Any firm that is not certified as an ACDBE, DBE, DVBE, LBE, LSBE, MBE, SBE or WBE is considered an OBE (Other Business Enterprise).

**LSBE designation is only for firms that are certified as both SBE and LBE.

- **Certifying Agency** – Agency that issued the certification

City of Los Angeles (Department of Public Works)

CALIF DGS (State of California Department of General Services)

CALTRANS (California Department of Transportation)

METRO (L.A. County Metropolitan Transportation Authority)

SBA (Federal Small Business Administration)

DVA (Department of Veterans Affairs)

USWCC (US Women's Chamber of Commerce)

WBEC-WEST (Women's Business Enterprise Council – WEST)

NWBOC (National Women Business Owners Corporation)

Description of Project Services – A brief description of the work the bidder/proposer or subcontractor will perform.

NAICS – North American Industry Classification System codes listed at <http://www.census.gov/epcd/www/naics.html>

In order to receive credit for ACDBE/DBE/DVBE/LBE/LSBE/MBE/WBE/SBE participation, the companies must be certified in the NAICS code for the specific work they will perform on the contract.

Amount Proposed – Indicate the anticipated amount to be paid to the subcontractor over the term of the contract.

Proposed Percentage – Calculate the subcontractor's share of the contract by dividing the Subcontractors Proposed Amount by the Bid/Proposal Amount.

Please note: For projects with ACDBE or DBE goals, the Code of Federal Regulations, Title 49, Part 26.55(e) allows only 60% of the Amount Proposed to be used in the calculation for a subcontractor who is a regular dealer/supplier.

Signature/Date – This form must be signed by a responsible person capable of committing the firm contractually.

Participation Level Proposed by Bidder/Proposer –

Indicate the level of ACDBE/DBE/DVBE/LBE/LSBE/MBE/WBE/SBE participation proposed by Bidder/Proposer.

Goal(s) Stated in the Request for Bid/Proposal –

The ACDBE/DBE/DVBE/LBE/LSBE/MBE/WBE/SBE goal(s) established by Procurement Services Division for the Request for Bid/Proposal.

For information regarding the certification process, please call the Department of Public Works, Centralized Certification Section at (213) 847-2684.

SUBCONTRACTOR PARTICIPATION PLAN

ATTENTION:

You MUST list ALL anticipated subcontractors, regardless of their dollar amount or percent proposed, and regardless of whether they are certified or not.

You MUST fill out ALL applicable fields complete for the Prime and all subcontractors. Failure to provide complete and legible information on this form may result in your firm not receiving full certification credit.

Project Title: Airfield & Terminal Modernization Program Landside Improvements Project

Today's Date: March 24, 2025

BIDDER/PROPOSER COMPANY INFORMATION				BID / RPROPOSAL AMOUNT				DESCRIPTION OF PROJECT SERVICES	
NAME:	Skanska-Flatiron, A Joint Ven	ETHNICITY:	NA	\$362,150,987				Prime Contractor (PDB)	
ADDRESS:	1995 Agua Mansa Road	GENDER:	NA						
CITY/STATE/ZIP:	Riverside, CA 92509	FEDERAL TAX ID:							
CONTACT NAME:	James Bailey	EMAIL:	james.bailey@skanska.com						
TELEPHONE NO:	602-463-1740								
CERTIFICATION TYPE: <input type="checkbox"/> ACDBE <input type="checkbox"/> DBE <input type="checkbox"/> DVBE <input type="checkbox"/> MBE <input type="checkbox"/> LBE <input type="checkbox"/> LSBE <input type="checkbox"/> SBE <input type="checkbox"/> WBE									
CERTIFYING AGENCY: <input type="checkbox"/> CITY OF LA <input type="checkbox"/> CALIF DGS <input type="checkbox"/> CALTRANS <input type="checkbox"/> METRO <input type="checkbox"/> SBA								NAICS: 237310	
<input type="checkbox"/> DVA <input type="checkbox"/> USWCC <input type="checkbox"/> NWBOC <input type="checkbox"/> WBEX-WEST <input type="checkbox"/> OTHER									
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES	
NAME:	HNTB	ETHNICITY:	NA	\$ 8,606,417.00	15.00%	\$ 1,290,963.00	0.36%	Lead Design Firm - DSDC	
ADDRESS:	6033 West Century Blvd, Ste	GENDER:	NA						
CITY/STATE/ZIP:	Los Angeles, CA 90045	FEDERAL TAX ID:							
CONTACT NAME:	Richard Hart	EMAIL:	rhart@hntb.com						
TELEPHONE NO:	714-504-2293								
CERTIFICATION TYPE: <input type="checkbox"/> ACDBE <input type="checkbox"/> DBE <input type="checkbox"/> DVBE <input type="checkbox"/> MBE <input type="checkbox"/> LBE <input type="checkbox"/> LSBE <input type="checkbox"/> SBE <input type="checkbox"/> WBE									
CERTIFYING AGENCY: <input type="checkbox"/> CITY OF LA <input type="checkbox"/> CALIF DGS <input type="checkbox"/> CALTRANS <input type="checkbox"/> METRO <input type="checkbox"/> SBA								NAICS: 541330	
<input type="checkbox"/> DVA <input type="checkbox"/> USWCC <input type="checkbox"/> NWBOC <input type="checkbox"/> WBEX-WEST <input type="checkbox"/> OTHER									
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES	
NAME:	Steiner Consulting	ETHNICITY:	Caucasian	\$ 1,119,234	100.00%	\$ 1,119,234	0.31%	AHJ & Third Party Coordination	
ADDRESS:	80 Ilex Drive	GENDER:	Female						
CITY/STATE/ZIP:	Thousand Oaks, CA 91320	FEDERAL TAX ID:							
CONTACT NAME:	Jill Steiner	EMAIL:	jill@steinerconsultinginc.com						
TELEPHONE NO:	818-620-1345								
CERTIFICATION TYPE: <input type="checkbox"/> ACDBE <input checked="" type="checkbox"/> X DBE <input type="checkbox"/> DVBE <input type="checkbox"/> MBE <input type="checkbox"/> LBE <input type="checkbox"/> LSBE <input type="checkbox"/> SBE <input type="checkbox"/> WBE									
CERTIFYING AGENCY: <input type="checkbox"/> CITY OF LA <input type="checkbox"/> CALIF DGS <input type="checkbox"/> CALTRANS <input checked="" type="checkbox"/> X METRO <input type="checkbox"/> SBA								NAICS: 541330	
<input type="checkbox"/> DVA <input type="checkbox"/> USWCC <input type="checkbox"/> NWBOC <input type="checkbox"/> WBEX-WEST <input type="checkbox"/> OTHER									

SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Fryman Management, Inc.	ETHNICITY:	Caucasian	\$ 13,402,744	10.16%	\$ 1,361,860	0.38%	MOT
ADDRESS:	18 Goodyear #105	GENDER:	Male					
CITY/STATE/ZIP:	Irvine, CA 92618	FEDERAL TAX ID:						
CONTACT NAME:	Ross Fryman	EMAIL:	ross@frymanmgmt.com					
TELEPHONE NO:	949-480-7525							
CERTIFICATION TYPE: ACDBE DBE X DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS CALTRANS METRO SBA								NAICS: 541330
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Modern Times	ETHNICITY:	Hispanic American	\$ 532,784	100.00%	\$ 532,784	0.15%	DBE Solicitation & Reporting Support
ADDRESS:	1892 E Altadena Drive	GENDER:	Male					
CITY/STATE/ZIP:	Altadena, CA 91001	FEDERAL TAX ID:						
CONTACT NAME:	Joseph Hernandez	EMAIL:	joe@moertimesinc.com					
TELEPHONE NO:	213-810-6111							
CERTIFICATION TYPE: ACDBE X DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS X CALTRANS METRO SBA								NAICS: 541611
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Kroner Environmental Assess	ETHNICITY:	Caucasian	\$ 121,712	100.00%	\$ 121,712	0.03%	Environmental Management
ADDRESS:	10801 National Blvd Ste 415	GENDER:	Female					
CITY/STATE/ZIP:	Los Angeles, CA 90064	FEDERAL TAX ID:						
CONTACT NAME:	Tamara Kroner	EMAIL:	tkroner@kronerenvironmental.com					
TELEPHONE NO:	310-474-1500							
CERTIFICATION TYPE: ACDBE X DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS X CALTRANS X METRO SBA								NAICS: 541620
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Kimberlina Whettam & Assoc	ETHNICITY:	Caucasian	\$ 810,685	100.00%	\$ 810,685	0.22%	Permitting Support
ADDRESS:	241 S. Figueroa Street Ste 37	GENDER:	Female					
CITY/STATE/ZIP:	Los Angeles, CA 90012	FEDERAL TAX ID:						
CONTACT NAME:	Kimberlina Whettam	EMAIL:	kimberlina@kwbettam.com					
TELEPHONE NO:	818-427-2154							
CERTIFICATION TYPE: ACDBE X DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: X CITY OF LA CALIF DGS CALTRANS METRO SBA								NAICS: 5416181
DVA USWCC NWBOC WBEX-WEST OTHER								

SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES								
NAME:	Hirschmugl, Heine & Associates	ETHNICITY:	Caucasian	\$ 704,363	100.00%	\$ 704,363	0.19%	Scheduling Support								
ADDRESS:	554 sierra Springs Drive	GENDER:	Female													
CITY/STATE/ZIP:	Crowley Lake, CA 93546	FEDERAL TAX ID:														
CONTACT NAME:	Amy Heine	EMAIL:	aheine@hhaconsulting.com													
TELEPHONE NO:	410-533-1833															
CERTIFICATION TYPE:								ACDBE	X	DBE	DVBE	MBE	LBE	LSBE	SBE	WBE
CERTIFYING AGENCY:								CITY OF LA	CALIF DGS	X	CALTRANS	METRO	SBA			
DVA				USWCC	NWBOC	WBEX-WEST	OTHER									
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES								
NAME:	EW Moon	ETHNICITY:	Black American	\$ 259,502.00	100.00%	\$ 259,502.00	0.07%	Document Control								
ADDRESS:	5601 West Stauson Ave, 248	GENDER:	Male													
CITY/STATE/ZIP:	Culver City, CA 92030	FEDERAL TAX ID:														
CONTACT NAME:	Elvin Moon	EMAIL:	ewmoon@ewmooninc.net													
TELEPHONE NO:	310-815-9901															
CERTIFICATION TYPE:								ACDBE	X	DBE	DVBE	MBE	LBE	LSBE	SBE	WBE
CERTIFYING AGENCY:								CITY OF LA	CALIF DGS	CALTRANS	X	METRO	SBA			
DVA				USWCC	NWBOC	WBEX-WEST	OTHER									
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES								
NAME:	The Quality Firm	ETHNICITY:	Black American	\$ 10,205,126.00	100.00%	\$ 10,205,126.00	2.82%	Quality Control								
ADDRESS:	1075 E Nevada	GENDER:	Male													
CITY/STATE/ZIP:	Signal Hill, CA 90755	FEDERAL TAX ID:														
CONTACT NAME:	Yonas Keffelew	EMAIL:	yonas@thequalityfirm.com													
TELEPHONE NO:	562-386-7131															
CERTIFICATION TYPE:								ACDBE	X	DBE	DVBE	MBE	LBE	LSBE	SBE	WBE
CERTIFYING AGENCY:								CITY OF LA	CALIF DGS	CALTRANS	X	METRO	SBA			
DVA				USWCC	NWBOC	WBEX-WEST	OTHER									
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES								
NAME:	CL Surveying And Mapping, Inc	ETHNICITY:	Asian - Pacific American	\$ 2,125,000.00	100.00%	\$ 2,125,000.00	0.59%	Construction Survey								
ADDRESS:	1269 West Pomona Road, Ste	GENDER:	Male													
CITY/STATE/ZIP:	Corona, CA 92882	FEDERAL TAX ID:														
CONTACT NAME:	Lam Le	EMAIL:	dan@sl-survey.com													
TELEPHONE NO:	909-484-4200															
CERTIFICATION TYPE:								ACDBE	X	DBE	DVBE	MBE	LBE	LSBE	SBE	WBE
CERTIFYING AGENCY:								X	CITY OF LA	CALIF DGS	CALTRANS	METRO	SBA			
DVA				USWCC	NWBOC	WBEX-WEST	OTHER									

SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Frontline Traffic Control	ETHNICITY:	Hispanic American	\$ 576,000.00	100.00%	\$ 576,000.00	0.16%	Flagging
ADDRESS:	32535 Lakeview Terrace	GENDER:	Male					
CITY/STATE/ZIP:	Lake Elsinore, CA 92530	FEDERAL TAX ID:						
CONTACT NAME:	Carlos Salazar	EMAIL:	carlos@fronlinetrafficcontrol.com					
TELEPHONE NO:	850-300-1496							
CERTIFICATION TYPE: ACDBE X DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS CALTRANS X METRO SBA								NAICS: 561990
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Maneri Traffic Control Inc., DBE	ETHNICITY:	Hispanic American	\$ 13,825.00	100.00%	\$ 13,825.00	0.0038%	CAS
ADDRESS:	4949 2nd Street	GENDER:	Female					
CITY/STATE/ZIP:	Fallbrook, CA 92028	FEDERAL TAX ID:						
CONTACT NAME:	Maria Maneri	EMAIL:	mmaneri@manerittrafficcontrol.com					
TELEPHONE NO:	951-695-5104							
CERTIFICATION TYPE: ACDBE X DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS X CALTRANS METRO SBA								NAICS: 237310
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Perimeter Security Group LLC	ETHNICITY:	Caucasian	\$ 923,916.00	100.00%	\$ 923,916.00	0.26%	Temporary Fence
ADDRESS:	N. 7488 Government Way	GENDER:	Female					
CITY/STATE/ZIP:	Dallan Gardens, ID 83815	FEDERAL TAX ID:						
CONTACT NAME:	Brenda Blood	EMAIL:	brenda@perimetersecuritygroup.com					
TELEPHONE NO:	208-660-7296							
CERTIFICATION TYPE: ACDBE X DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS X CALTRANS METRO SBA								NAICS: 238990
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Hydro2Geotech	ETHNICITY:	Black American	\$ 285,976	100.00%	\$ 285,976	0.08%	Photo Documentation
ADDRESS:	1833 N 105th St Suite 101	GENDER:	Male					
CITY/STATE/ZIP:	Seattle, WA 98133	FEDERAL TAX ID:						
CONTACT NAME:	Mussie Tewelde	EMAIL:	mtewelde@hydro2geotech.com					
TELEPHONE NO:	206-373-1885							
CERTIFICATION TYPE: ACDBE X DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS X CALTRANS METRO SBA								NAICS: 541360
DVA USWCC NWBOC WBEX-WEST OTHER								

SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Ultimate Security Services	ETHNICITY:	Black American	\$ 1,405,475.00	100.00%	\$ 1,405,475.00	0.39%	Security Guard
ADDRESS:	5250 W. Century Blvd, Suite 4	GENDER:	Male					
CITY/STATE/ZIP:	Los Angeles, CA 90045	FEDERAL TAX ID:						
CONTACT NAME:	Bertin Gnagbe	EMAIL:	admin@ultimatesecurityservice.com					
TELEPHONE NO:	310-649-4400							
CERTIFICATION TYPE: ACDBE <input checked="" type="checkbox"/> DBE <input type="checkbox"/> DVBE <input type="checkbox"/> MBE <input type="checkbox"/> LBE <input type="checkbox"/> LSBE <input type="checkbox"/> SBE <input type="checkbox"/> WBE <input type="checkbox"/>								
CERTIFYING AGENCY: CITY OF LA <input type="checkbox"/> CALIF DGS <input checked="" type="checkbox"/> CALTRANS <input type="checkbox"/> METRO <input type="checkbox"/> SBA <input type="checkbox"/>								
DVA <input type="checkbox"/> USWCC <input type="checkbox"/> NWBOC <input type="checkbox"/> WBEX-WEST <input type="checkbox"/> OTHER <input type="checkbox"/>							NAICS: 561612	
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Final Cleaning Solutions	ETHNICITY:	Hispanic American	\$ 305,200.00	100.00%	\$ 305,200.00	0.08%	Janitorial
ADDRESS:	9024 Jeff St	GENDER:	Female					
CITY/STATE/ZIP:	Bellflower, CA 90706	FEDERAL TAX ID:						
CONTACT NAME:	Anacani Torres	EMAIL:	anacani@finalcleaningsolutionsinc.com					
TELEPHONE NO:	562-716-6169							
CERTIFICATION TYPE: ACDBE <input checked="" type="checkbox"/> DBE <input type="checkbox"/> DVBE <input type="checkbox"/> MBE <input type="checkbox"/> LBE <input type="checkbox"/> LSBE <input type="checkbox"/> SBE <input type="checkbox"/> WBE <input type="checkbox"/>								
CERTIFYING AGENCY: CITY OF LA <input type="checkbox"/> CALIF DGS <input type="checkbox"/> CALTRANS <input checked="" type="checkbox"/> METRO <input type="checkbox"/> SBA <input type="checkbox"/>								
DVA <input type="checkbox"/> USWCC <input type="checkbox"/> NWBOC <input type="checkbox"/> WBEX-WEST <input type="checkbox"/> OTHER <input type="checkbox"/>							NAICS: 561720	
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	South Coast Sweeping	ETHNICITY:	Caucasian	\$ 1,131,755.52	100.00%	\$ 1,131,755.52	0.31%	Sweeper
ADDRESS:	2332 Trails End	GENDER:	Female					
CITY/STATE/ZIP:	Fallbrook, CA 92028	FEDERAL TAX ID:						
CONTACT NAME:	Kim Sarmiento	EMAIL:	kssouthcoast@outlook.com					
TELEPHONE NO:	760-535-6800							
CERTIFICATION TYPE: ACDBE <input checked="" type="checkbox"/> DBE <input type="checkbox"/> DVBE <input type="checkbox"/> MBE <input type="checkbox"/> LBE <input type="checkbox"/> LSBE <input type="checkbox"/> SBE <input type="checkbox"/> WBE <input type="checkbox"/>								
CERTIFYING AGENCY: CITY OF LA <input type="checkbox"/> CALIF DGS <input type="checkbox"/> CALTRANS <input checked="" type="checkbox"/> METRO <input type="checkbox"/> SBA <input type="checkbox"/>								
DVA <input type="checkbox"/> USWCC <input type="checkbox"/> NWBOC <input type="checkbox"/> WBEX-WEST <input type="checkbox"/> OTHER <input type="checkbox"/>							NAICS: 238910, 488490	
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	BT Trucking	ETHNICITY:	Hispanic American	\$ 1,556,099.00	100.00%	\$ 1,556,099.00	0.43%	Water Truck
ADDRESS:	2020 17th Street, Ste 2016	GENDER:	Male					
CITY/STATE/ZIP:	Bakersfield, CA 93301	FEDERAL TAX ID:						
CONTACT NAME:	Eduardo Arambula	EMAIL:	julie@bttrucking.com					
TELEPHONE NO:	661460-8353							
CERTIFICATION TYPE: ACDBE <input checked="" type="checkbox"/> DBE <input type="checkbox"/> DVBE <input type="checkbox"/> MBE <input type="checkbox"/> LBE <input type="checkbox"/> LSBE <input type="checkbox"/> SBE <input type="checkbox"/> WBE <input type="checkbox"/>								
CERTIFYING AGENCY: CITY OF LA <input type="checkbox"/> CALIF DGS <input checked="" type="checkbox"/> CALTRANS <input type="checkbox"/> METRO <input type="checkbox"/> SBA <input type="checkbox"/>								
DVA <input type="checkbox"/> USWCC <input type="checkbox"/> NWBOC <input type="checkbox"/> WBEX-WEST <input type="checkbox"/> OTHER <input type="checkbox"/>							NAICS: 484110, 484220	

SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	BT Trucking	ETHNICITY:	Hispanic American	\$ 1,715,428.00	100.00%	\$ 1,715,428.00	0.47%	Trucking
ADDRESS:	2020 17th Street, Ste 2016	GENDER:	Male					
CITY/STATE/ZIP:	Bakersfield, CA 93301	FEDERAL TAX ID:						
CONTACT NAME:	Eduardo Arambula	EMAIL:	julie@bttrucking.com					
TELEPHONE NO:	661-460-8353							
CERTIFICATION TYPE: ACDBE X DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS X CALTRANS METRO SBA								NAICS: 484110, 484220
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Global Transloading	ETHNICITY:	Native American	\$ 496,800.00	100.00%	\$ 496,800.00	0.14%	Dumpsters
ADDRESS:	1842 East 29th Street	GENDER:	Female					
CITY/STATE/ZIP:	Signal Hill, CA 90755	FEDERAL TAX ID:						
CONTACT NAME:	Shannon Greigo	EMAIL:	shannongreigo@globaltransloading.com					
TELEPHONE NO:	562-495-9600							
CERTIFICATION TYPE: ACDBE X DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS X CALTRANS METRO SBA								NAICS: 562111, 562119
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Nucor	ETHNICITY:	NA	\$ 1,890,235.00	100.00%	\$ 1,890,235.00	0.52%	Trucking FW Beams (Lower Tier)
ADDRESS:	3360 6th Avenue South, Ste 2	GENDER:	NA					
CITY/STATE/ZIP:	Federal Way, WA 98003	FEDERAL TAX ID:						
CONTACT NAME:	Devin Richardson	EMAIL:	devin.richardson@nucorskylite.com					
TELEPHONE NO:								
CERTIFICATION TYPE: ACDBE DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS CALTRANS METRO SBA								NAICS:
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Los Morales	ETHNICITY:	Hispanic American	\$ 1,726,901.00	100.00%	\$ 1,726,901.00	0.48%	Export Trucking
ADDRESS:	11038 A Washington Blvd	GENDER:	Male					
CITY/STATE/ZIP:	Whittier, CA 90607	FEDERAL TAX ID:						
CONTACT NAME:	Edward Morales	EMAIL:	estimating@lmttruckngdoneight.com					
TELEPHONE NO:	562-368-1029							
CERTIFICATION TYPE: ACDBE X DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS CALTRANS X METRO SBA								NAICS: 484220
DVA USWCC NWBOC WBEX-WEST OTHER								

SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Rupert Construction Supply	ETHNICITY:	Hispanic American	\$ 73,471.00	40.00%	\$ 29,388.40	0.01%	Fomliner Supply
ADDRESS:	12405 Gold Flake CT.	GENDER:	Male					
CITY/STATE/ZIP:	Rancho Cordova, CA 95741	FEDERAL TAX ID:						
CONTACT NAME:	Nicholas Herrera	EMAIL:	nick@rupertsupply.com					
TELEPHONE NO:	925-229-5577							
CERTIFICATION TYPE: <input type="checkbox"/> ACDBE <input checked="" type="checkbox"/> DBE <input type="checkbox"/> DVBE <input type="checkbox"/> MBE <input type="checkbox"/> LBE <input type="checkbox"/> LSBE <input type="checkbox"/> SBE <input type="checkbox"/> WBE								
CERTIFYING AGENCY: <input type="checkbox"/> CITY OF LA <input type="checkbox"/> CALIF DGS <input checked="" type="checkbox"/> CALTRANS <input type="checkbox"/> METRO <input type="checkbox"/> SBA								NAICS: 423320, 423510, 423990, 444180
<input type="checkbox"/> DVA <input type="checkbox"/> USWCC <input type="checkbox"/> NWBOC <input type="checkbox"/> WBEX-WEST <input type="checkbox"/> OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Frontline Traffic Control	ETHNICITY:	Hispanic American	\$ 554,872.64	60.00%	\$ 332,923.58	0.09%	Traffic Control Materials
ADDRESS:	32535 Lakeview Terrace	GENDER:	Male					
CITY/STATE/ZIP:	Lake Elsinore, CA 92530	FEDERAL TAX ID:						
CONTACT NAME:	Carlos Salazar	EMAIL:	carlos@frontlinetrafficcontrol.com					
TELEPHONE NO:	850-300-1498							
CERTIFICATION TYPE: <input type="checkbox"/> ACDBE <input checked="" type="checkbox"/> DBE <input type="checkbox"/> DVBE <input type="checkbox"/> MBE <input type="checkbox"/> LBE <input type="checkbox"/> LSBE <input type="checkbox"/> SBE <input type="checkbox"/> WBE								
CERTIFYING AGENCY: <input type="checkbox"/> CITY OF LA <input type="checkbox"/> CALIF DGS <input type="checkbox"/> CALTRANS <input checked="" type="checkbox"/> METRO <input type="checkbox"/> SBA								NAICS: 561990
<input type="checkbox"/> DVA <input type="checkbox"/> USWCC <input type="checkbox"/> NWBOC <input type="checkbox"/> WBEX-WEST <input type="checkbox"/> OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	GRIFFITH COMPANY	ETHNICITY:	NA	\$ 38,611,800.00	11.40%	\$ 4,399,826.00	1.21%	Structural Concrete - Retaining Walls
ADDRESS:	3050 E. Birch Street	GENDER:	NA					
CITY/STATE/ZIP:	Brea, CA 92821	FEDERAL TAX ID:						
CONTACT NAME:	Lucas White	EMAIL:	lwhite@griffithcompany.net					
TELEPHONE NO:	562-665-8657							
CERTIFICATION TYPE: <input type="checkbox"/> ACDBE <input type="checkbox"/> DBE <input type="checkbox"/> DVBE <input type="checkbox"/> MBE <input type="checkbox"/> LBE <input type="checkbox"/> LSBE <input type="checkbox"/> SBE <input type="checkbox"/> WBE								
CERTIFYING AGENCY: <input type="checkbox"/> CITY OF LA <input type="checkbox"/> CALIF DGS <input type="checkbox"/> CALTRANS <input type="checkbox"/> METRO <input type="checkbox"/> SBA								NAICS: 237310
<input type="checkbox"/> DVA <input type="checkbox"/> USWCC <input type="checkbox"/> NWBOC <input type="checkbox"/> WBEX-WEST <input type="checkbox"/> OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Dig Alert Done Right	ETHNICITY:	Black American	\$ 131,540.00	100.00%	\$ 131,540.00	0.04%	Vacuum Truck
ADDRESS:	5831 Stoddard Road, Ste 800	GENDER:	Male					
CITY/STATE/ZIP:	Modesto, CA 95350	FEDERAL TAX ID:						
CONTACT NAME:	Everett Jackson	EMAIL:	ejackson@digalertdoneight.com					
TELEPHONE NO:	209-872-8560							
CERTIFICATION TYPE: <input type="checkbox"/> ACDBE <input checked="" type="checkbox"/> DBE <input type="checkbox"/> DVBE <input type="checkbox"/> MBE <input type="checkbox"/> LBE <input type="checkbox"/> LSBE <input type="checkbox"/> SBE <input type="checkbox"/> WBE								
CERTIFYING AGENCY: <input type="checkbox"/> CITY OF LA <input type="checkbox"/> CALIF DGS <input type="checkbox"/> CALTRANS <input checked="" type="checkbox"/> METRO <input type="checkbox"/> SBA								NAICS: 238910
<input type="checkbox"/> DVA <input type="checkbox"/> USWCC <input type="checkbox"/> NWBOC <input type="checkbox"/> WBEX-WEST <input type="checkbox"/> OTHER								

SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	R Dugan Construction	ETHNICITY:	Caucasian	\$ 190,691.00	100.00%	\$ 190,691.00	0.05%	Minor Structures
ADDRESS:	6157 Marlatt Street	GENDER:	Female					
CITY/STATE/ZIP:	Mira Loma, CA 91752	FEDERAL TAX ID:						
CONTACT NAME:	Wendy Dugan	EMAIL:	marlina@rduganconst.com					
TELEPHONE NO:	951-360-7531							
CERTIFICATION TYPE: A C D B E X D B E D V B E M B E L B E L S B E S B E W B E								
CERTIFYING AGENCY: CITY OF LA CALIF DGS X CALTRANS METRO SBA								NAICS: 237110, 238110
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Pre-Con Products	ETHNICITY:	Hispanic American	\$ 121,281.00	100.00%	\$ 121,281.00	0.03%	Pipe Supply
ADDRESS:	240 Los Angeles Ave	GENDER:	Male					
CITY/STATE/ZIP:	Simi Valley, CA 93065	FEDERAL TAX ID:						
CONTACT NAME:	David Zamoraandia	EMAIL:	kbrantingham@pre-conproducts.com					
TELEPHONE NO:	805-527-0841							
CERTIFICATION TYPE: A C D B E X D B E D V B E M B E L B E L S B E S B E W B E								
CERTIFYING AGENCY: CITY OF LA CALIF DGS X CALTRANS METRO SBA								NAICS: 327332
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Dena Burke Engineering Constructors	ETHNICITY:	Caucasian	\$ 38,675.00	100.00%	\$ 38,675.00	0.01%	Concrete Barrier
ADDRESS:	207 W State Street	GENDER:	Female					
CITY/STATE/ZIP:	Ontario, CA 91762	FEDERAL TAX ID:						
CONTACT NAME:	Dena Bryn Burke	EMAIL:	bryn@debconstructors.com					
TELEPHONE NO:	626-228-3670							
CERTIFICATION TYPE: A C D B E X D B E D V B E M B E L B E L S B E S B E W B E								
CERTIFYING AGENCY: CITY OF LA CALIF DGS CALTRANS X METRO SBA								NAICS: 237310, 238110
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	Alameda Construction Services, Inc	ETHNICITY:	Black American	\$ 20,799.00	100.00%	\$ 20,799.00	0.01%	Concrete Curb
ADDRESS:	2528 East 125th Street	GENDER:	Male					
CITY/STATE/ZIP:	Compton, CA 90222	FEDERAL TAX ID:						
CONTACT NAME:	Kevin Ramsey	EMAIL:	kramsey@alamedaconstruction.com					
TELEPHONE NO:	310-635-3277							
CERTIFICATION TYPE: A C D B E X D B E D V B E M B E L B E L S B E S B E W B E								
CERTIFYING AGENCY: X CITY OF LA CALIF DGS CALTRANS METRO SBA								NAICS: 237310
DVA USWCC NWBOC WBEX-WEST OTHER								

SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	CONDON-JOHNSON	ETHNICITY:	NA	\$ 1,487,072.00	10.00%	\$ 148,707.20	0.04%	CIDH Foundations - Abutments
ADDRESS:	3434 Grove Street	GENDER:	NA					
CITY/STATE/ZIP:	Lemon Grove, CA 91945	FEDERAL TAX ID:						
CONTACT NAME:	Josh Hilton	EMAIL:	jhilton@condon-johnson.com					
TELEPHONE NO:	858-334-3483							
CERTIFICATION TYPE:	ACDBE DBE DVBE MBE LBE LSBE SBE WBE							
CERTIFYING AGENCY:	CITY OF LA CALIF DGS CALTRANS METRO SBA							NAICS: 237310
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	CMC Rebar	ETHNICITY:	NA	\$ 10,260,000.00	30.00%	\$ 3,078,000.00	0.85%	Reinforcing Steel
ADDRESS:	3880 Murphy Canyon Rd. Ste	GENDER:	NA					
CITY/STATE/ZIP:	San Diego, CA 92123	FEDERAL TAX ID:						
CONTACT NAME:	Luis Casanova	EMAIL:	luis.casanova@cmc.com					
TELEPHONE NO:	858.737.7621							
CERTIFICATION TYPE:	ACDBE DBE DVBE MBE LBE LSBE SBE WBE							
CERTIFYING AGENCY:	CITY OF LA CALIF DGS CALTRANS METRO SBA							NAICS: 238120
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	TITAN DISPOSAL CO.	ETHNICITY:	Black American	\$ 600,000.00	100.00%	\$ 600,000.00	0.17%	Building Demolition
ADDRESS:	PO Box 93289	GENDER:	Male					
CITY/STATE/ZIP:	Pasadena, CA 91109	FEDERAL TAX ID:						
CONTACT NAME:	Jaime Potter	EMAIL:	jamie@titandisposal.com					
TELEPHONE NO:	800-807-0050							
CERTIFICATION TYPE:	ACDBE X DBE DVBE MBE LBE LSBE SBE WBE							
CERTIFYING AGENCY:	X CITY OF LA CALIF DGS CALTRANS METRO SBA							NAICS: 238910, 562111, 484220
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	STEVE BUBALO	ETHNICITY:	NA	\$ 22,887,000.00	6.00%	\$ 1,373,220.00	0.36%	Electrical & Communication Ductbanks
ADDRESS:	PO Box 1048	GENDER:	NA					
CITY/STATE/ZIP:	Monrovia, CA 91017	FEDERAL TAX ID:						
CONTACT NAME:	Noel Moore	EMAIL:	nmoore@stevebubalo.com					
TELEPHONE NO:	626-926-6501							
CERTIFICATION TYPE:	ACDBE DBE DVBE MBE LBE LSBE SBE WBE							
CERTIFYING AGENCY:	CITY OF LA CALIF DGS CALTRANS METRO SBA							NAICS: 237130
DVA USWCC NWBOC WBEX-WEST OTHER								

SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	BLOIS CONSTRUCTION	ETHNICITY:	NA	\$ 1,872,191.48	4.94%	\$ 92,453.90	0.03%	Waterlines
ADDRESS:	3201 Sturgis Road	GENDER:	NA					
CITY/STATE/ZIP:	Oxnard, CA 93030	FEDERAL TAX ID:						
CONTACT NAME:	Thomas Walls	EMAIL:	thomaswalls@bloisconstruction.com					
TELEPHONE NO:	805-656-1432							
CERTIFICATION TYPE: ACDBE DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS CALTRANS METRO SBA								NAICS: 238910
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	CGO	ETHNICITY:	Black American	\$ 118,300.00	100.00%	\$ 118,300.00	0.03%	Tree Removals
ADDRESS:	3100 East Cedar Street #14	GENDER:	Male					
CITY/STATE/ZIP:	Ontario, CA 91761	FEDERAL TAX ID:						
CONTACT NAME:	Charles Ojuri	EMAIL:	cgo2@msn.com					
TELEPHONE NO:	909-930-5501							
CERTIFICATION TYPE: ACDBE X DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS X CALTRANS METRO SBA								NAICS: 237310, 238910, 561730
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	TBD Pending Award	ETHNICITY:		\$ 20,500,000.00	5.00%	\$ 1,025,000.00	0.28%	Bridge Foundations
ADDRESS:		GENDER:						
CITY/STATE/ZIP:		FEDERAL TAX ID:						
CONTACT NAME:		EMAIL:						
TELEPHONE NO:								
CERTIFICATION TYPE: ACDBE DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS CALTRANS METRO SBA								NAICS:
DVA USWCC NWBOC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	TBD Pending Award	ETHNICITY:		\$ 7,600,000.00	15.00%	\$ 1,140,000.00	0.31%	Subcontracts Buy Out Fund
ADDRESS:		GENDER:						
CITY/STATE/ZIP:		FEDERAL TAX ID:						
CONTACT NAME:		EMAIL:						
TELEPHONE NO:								
CERTIFICATION TYPE: ACDBE DBE DVBE MBE LBE LSBE SBE WBE								
CERTIFYING AGENCY: CITY OF LA CALIF DGS CALTRANS METRO SBA								NAICS:
DVA USWCC NWBOC WBEX-WEST OTHER								

SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	TBD Pending Allocation		ETHNICITY:	\$ 63,037,855.00	15.00%	\$ 9,455,648.25	2.61%	DB Contingency
ADDRESS:			GENDER:					
CITY/STATE/ZIP:			FEDERAL TAX ID:					
CONTACT NAME:			EMAIL:					
TELEPHONE NO:								
CERTIFICATION TYPE:	ACDBE DBE DVBE MBE LBE LSBE SBE WBE							
CERTIFYING AGENCY:	CITY OF LA CALIF DGS CALTRANS METRO SBA						NAICS:	
DVA USWCC NWBCC WBEX-WEST OTHER								
SUBCONTRACTOR COMPANY INFORMATION				\$ PROPOSED	% PROPOSED	DBE \$ PROPOSED	DBE % OF PROPOSED AMT	DESCRIPTION OF PROJECT SERVICES
NAME:	TBD		ETHNICITY:			\$ 1,500,000.00	0.41%	Additional General Requirement / General Conditions allocation
ADDRESS:			GENDER:					
CITY/STATE/ZIP:			FEDERAL TAX ID:					
CONTACT NAME:			EMAIL:					
TELEPHONE NO:								
CERTIFICATION TYPE:	ACDBE DBE DVBE MBE LBE LSBE SBE WBE							
CERTIFYING AGENCY:	CITY OF LA CALIF DGS CALTRANS METRO SBA						NAICS:	
DVA USWCC NWBCC WBEX-WEST OTHER								
				\$	54,353,292.45	15.01%		

I certify under the penalty of perjury that the information contained on this form is true and correct and that the firms listed are the subcontractors anticipated to be utilized if this project is awarded to the above prime contractor. I agree to comply with any applicable provisions for additions and substitutions, and I further understand and agree that any and all changes or substitutions must be authorized by the LAWA Procurement Services Division prior to their implementation. An amended Subcontractor Participation Plan is required for any substitution or change to Subcontractors listed on the originally submitted Plan.

Participation Level(s) Proposed by Bidder/Proposer:	_____ %	<input type="checkbox"/> ACDBE
	15 _____ %	<input checked="" type="checkbox"/> DBE
	_____ %	<input type="checkbox"/> DVBE
	_____ %	<input type="checkbox"/> LBE
	_____ %	<input type="checkbox"/> LSBE
	_____ %	<input type="checkbox"/> MBE/WBE
	_____ %	<input type="checkbox"/> SBE

Goal(s) Stated in the Request for Bid/Proposal:	_____ %	<input type="checkbox"/> ACDBE
	15 _____ %	<input checked="" type="checkbox"/> DBE
	_____ %	<input type="checkbox"/> DVBE
	_____ %	<input type="checkbox"/> LBE
	_____ %	<input type="checkbox"/> LSBE
	_____ %	<input type="checkbox"/> MBE/WBE
	_____ %	<input type="checkbox"/> SBE



03/25/2025

SIGNATURE

DATE

JAMES BAILEY

602-463-1740

PRINT NAME

TITLE

PHONE



ATMP ROADWAYS IMPROVEMENTS PROJECT cGMP1 EARLY WORKS

Tab 9 Permitting Plan

March 25, 2025

Prepared by:
Skanska-Flatiron A Joint Venture

SKANSKA | FLATIRON

1.0 OVERVIEW

The goal of the permitting plan is to outline the SFJV strategy to obtaining permits for the ATMP roadways so that construction can begin. As the new roadway network lies within both private property and public Right-of-Way limits both LAWA and City of Los Angeles are responsible for making sure that SFJV can obtain permits seamlessly.

The roadways that need to be permitted have been broken up into three different areas as shown on the map below:

1. Yellow area will follow Caltrans Standards
2. Blue will follow Project Specific Standards
3. Pink will follow City of Los Angeles Standards



2.0 PERMITTING PLAN AND AHJ STRATEGY

Through various meetings with LAWA, SFJV and the applicable City agencies it has been deemed that the permitting on the project will be completed as follows:

- LADBS will be the permitting authority for all improvements with Private Properties.
- Structural and Foundation review of Bridges will be undertaken by LABOE
- Pedestrian Bridges will be reviewed and permitted by LADBS.
- For the new roadway segments that serve as direct airport connectors and do not meet functional classifications of public or private streets defined by BOE's Street Design Manual, City of Los Angeles Complete Streets Design Guide, and municipal code, LADBS will issue a use-of-land permit with a clearance for structural review by LABOE.
- LABOE will review these roadway segments and issue B-permits (as clearances) as part of the process prior to LADBS issuing the applicable land use permits.
- LABOE will not issue B-permits until Caltrans also reviews and approves sections that cross Caltrans Right-of-Way.
- LADBS will also have purview over site grading, electrical, and drainage connections on LAWA's private facilities. LABOE will also review drainage connections to public drainage systems and drainage within bridge structures.
- Improvements to existing roadway elements in the City of Los Angeles public road Right-of-Way that do not serve as direct airport connectors are anticipated to be permitted by LABOE under the B-permit process.
- The permitting approach to 96th St. will follow a Use of land permit from LADBS with a B-permit clearance from LABOE. LAWA intends to vacate this portion of public Right-of-Way and establish a private street easement for the portion of 96th St. between Sepulveda Blvd and Jetway Blvd. This road will serve a multi-use function related to airport access.
- Significant coordination will be required with the following City of Los Angeles entities to review and approve the respective components of the LAWA roadway design:
 - Los Angeles Department of Transportation (LADOT)
 - Los Angeles Department of Building and Safety (LADBS)
 - Los Angeles Bureau of Street Lighting (LABSL)
 - Los Angeles Bureau of Street Services (LABSS)
 - Los Angeles Department of Water & Power (LADWP)
 - LA Sanitation & Environment (LASAN)
 - LACFD – Los Angeles County Fire Department (LAFD)

The LABOE B-permit will be issued once LADOT, LABSS, LABSL, LABOE and LASAN give their approval.

Through meetings with LAWA, LABSL and LADBS it has been determined that Street Lighting will be permitted as follows.

- Private ROW (BLUE) – City of LA LABSL will review under a B permit. Any clearances for electrical for the Use of Land permit will be issued by LADBS.
- Public ROW (Pink) – City of LA LABSL will review.
- CALTRANS ROW (Yellow) – City of LA LABSL will review.

ATMP Street Lighting Permitting Agency and Reviewer Matrix			
Permitting Agency/Reviewer			
ITEM	Blue (Private ROW)	Pink (Public ROW)	YELLOW (Caltrans ROW)
Lighting Cables - Part of Plan Check	TBD	LABSL	LABSL
Pole and Luminaire Types	LABOE / LABOE	LABOE / LABSL	LABOE/Caltrans / LABSL / Caltrans
Pole Anchorage/ Foundation	LABOE / LABOE	LABOE / LABSL	LABOE/Caltrans / LABSL / Caltrans
Point of Service Connection and Metering	LADBS / LADBS Electrical	LABOE / LABSL / LADWP	LABOE / LABSL / LADWP
Conduits and Pull Boxes (System Appurtenances)	LADBS / LADBS Electrical	LABOE / LABSL	LABOE / LABSL

Caltrans will be the AHJ for the improvements within their right-of-way, except for facilities owned and operated by LADOT and LABSL, as well as reviewing and issuing encroachment permits for LAWA-owned structures that span over their right-of-way.

The following are the steps required to obtain an encroachment permit from Caltrans:

1. Complete the "Standard Encroachment Permit Application" (form TR-0100)
2. Attach supporting documentation, such as:
 - Plans
 - Location map
 - Environmental documentation
 - Letter of authorization
 - Surety bonds
 - Liability insurance
 - Any applicable fees
3. Submit the application and documentation to the District Encroachment Permits Office that has jurisdiction over the proposed encroachment site.

3.0 PERMITS

SFJV's permitting team have opened the following permits for scope relative to cGMP1.

Permit Number	AHJ	Description
B-Permit BR403203	LABOE	30% Design review
B-Permit BR403218	LABOE	60% DU1 Design review
B-Permit BR403219	LABOE	60% AC1 and AC2 Design review
B-Permit BR403220	LABOE	60% DU3 Design review
B-Permit BR403225	LABOE	60% DU4 Design review
B-Permit BR403226	LABOE	60% DU5 Design review
B-Permit BR403227	LABOE	60% DU2 Design review
B-Permit BR403219	LABOE	90% AC1 Design review
E-Permit PW2	LABOE	60% MW3 ATSAC and ITS
B-Permit BR403219	LABOE	90% AC2 Design review
B-Permit BR403218	LABOE	90% DU1 Design review
B-Permit BR403220	LABOE	90% DU3 Design review
B-Permit BR403225	LABOE	90% DU4 Design review
B-Permit BR403226	LABOE	90% DU5 Design review
B-Permit BR403227	LABOE	90% DU2 Design review
Pedestrian Bridges	LADBS	PB1 Design Review
Caltrans Encroachment Permit EW	Caltrans	Design Review
Caltrans Encroachment Permit MW	Caltrans	Design Review
Caltrans Encroachment Permit AT&T	Caltrans	Design Review
	LABOE	90% PW1A MOT
	LABOE	90% PW1B MOT
U-Permit 2024010875	LABOE	AT&T/Sunrise Relocation
U-Permit 2025001735	LABOE	AT&T/96 th @ Jetway
U-Permit 2025001739	LABOE	AT&T/ 98 th St
U-Permit 2024010886	LABOE	Crown Castle/96 th & Vicksburg
U-Permit 2024010876	LABOE	Spectrum/Vicksburg & Jetway

The following permits will be applied for to obtain approvals:

Permit Purpose	AHJ
Demolition Permit - Pylons	LADBS
Demolition Permit – LAX Letters	LADBS
Demolition Permit – Wall Park Building	LADBS
Demolition Permit – LACC Buildings	LADBS
Use of Land – Parcel 4	LADBS
Use of Land – Parcel 5	LADBS
Use of Land – Lot A	LADBS
Use of Land – Lot 1	LADBS
Use of Land – Lot 37	LADBS
Use of Land – Lot 38	LADBS
Various PMO Permits	LADBS



ATMP ROADWAYS IMPROVEMENTS PROJECT cGMP1 EARLY WORKS

Tab 10 CGMP Management Plan

March 22, 2025

Prepared by:
Skanska-Flatiron A Joint Venture

SKANSKA | FLATIRON



Project Management Plan
Detailed Design Submittal Update
(PR-02 and PR-22)



PMP Change/Revision Tracking form SD Submittal

	PR-01 4.B	DD Scope	Change Tracking from Previous Submittal
1	Project Management Plan (PR-02 and PR-22)	Update	Updated org chart. Minor updates for SD/DD scope
2	Traffic Management Plan (TMP)	Update	Updates for 60%, addressed comments from 30%
3	Construction Area Access, Phasing and Logistics Plan (PR-03)	Update	Updates for 60%, addressed comments from 30%
4	Safety Plan (PR-15)	Update	No Update
5	Security Plan (PR-03)	Update	No Update
6	Work Plan & Schedule (PR-04)	Update	Submitted separately as Submittal 0124 in Prolog. Included here for reference only.
7	Site Investigations Plan	Update	Added section for Phase 2
8	Design Management Plan (PR-11)	Update	No Update
9	Design Submittal Packaging Plan	Update	Updated to reflect proposed plan for 90%
10	Cost Management Plan	Update	No Update
11	Project Controls Plan	Update	No Update
12	Quality Control Plan (PR-14)	Update	No Update
13	Virtual Design and Construction (VDC) and Building Information Modeling (BIM) Execution Plan (PR-21)	Update	Addressed comments from previous submission, minor other updates
14	Risk Management Plan	Update	Addressed comments from previous submission, minor other updates
15	Sustainability Plan	Develop	New
16	Airport Operational Readiness & Commissioning Plan (PR-26)	Deferred to Future Task Order	
17	Storm Water Pollution Prevention Plan (SWPPP)	Update	Updates for 60%, addressed comments from 30%
18	Hazardous Materials Management Plan (HMMP)	Update	Updates for 60%, addressed comments from 30%
19	Environmental Monitoring and Control Plan (PR-18)	Update	Updates for 60%, addressed comments from 30%
20	Permitting Plan	Update	Updates for 60%, addressed comments from 30%
21	Third Party and Agency Coordination Plan (PR-12)	Update	Updates for 60%, addressed comments from 30%
22	Communication Plan	Update	Minor updates for 60%
23	Stakeholder Engagement and Management Plan	Update	Updates for 60%, addressed comments from 30%
24	Procurement and Packaging Plan (including but not limited to self-perform, subcontracting, etc.)	Update	No Update
25	Onboarding and Training/Familiarization Plan	Deferred to Future Task Order	

Contents

Project Management Plan.....	5
1.0 Project Management Plan (PMP).....	5
1.1 Overview	5
1.2 Maintenance and Update of PMP	5
1.3 PMP Training	5
1.4 PMP Outline	5
2. Project Management and Execution.....	7
2.1 Document Control.....	7
2.2 Office Location	7
2.3 3 rd Party Coordination	7
2.4 Phasing and Logistics.....	7
2.5 Project Meetings	7
2.5.1 Project Kick-off Conference.....	8
2.5.2 Design Coordination Meetings.....	8
2.5.3 Design Progress Meetings.....	8
2.5.4 Construction Document Reviews	8
2.5.5 Preconstruction Conference	8
2.5.6 Weekly Progress Meetings.....	8
2.5.7 Coordination Meetings	8
2.6 Coordination with Work Under Separate Contracts	8
2.7 Project Organization.....	9
2.7.1 Organization Chart	9
2.7.2 Roles and Responsibilities.....	11
3. Guaranteed Maximum Price (GMP) Proposals	13
3.1 GMP Proposals	13
Appendix 1 – Interface Agreements	15
Appendix 2 – Traffic Management Plan	17
Appendix 3 – Construction Area Access, Phasing and Logistics Plan (PR-03)	19
Appendix 4 – Safety Plan (PR-15).....	21
Appendix 5 - Security Plan (PR-03).....	23
Appendix 6 - Work Plan & Schedule (PR-04).....	25
Appendix 7 - Site Investigations Plan	30

Appendix 8 - Design Management Plan (PR-11)	32
Appendix 9 - Design Submittal Packaging Plan	34
Appendix 10 - Cost Management Plan.....	36
Appendix 11 – Project Controls Plan.....	38
Appendix 12 – Quality Control Plan (PR-14)	40
Appendix 13 – Virtual Design and Construction (VDC) and Building Information Modeling (BIM) Execution Plan (PR-21).....	42
Appendix 14 – Risk Management Plan	44
Appendix 15 – Sustainability Plan	46
Appendix 16 – Airport Operational Readiness & Commissioning Plan (PR-26)	48
Appendix 17 – Storm Water Pollution Prevention Plan (SWPPP)	50
Appendix 18 – Hazardous Materials Management Plan (HMMP)	52
Appendix 19 – Environmental Monitoring and Control Plan (PR-18)	54
Appendix 20 – Permitting Plan.....	56
Appendix 21 – Third Party and Agency Coordination Plan (PR-12)	58
Appendix 22 – Communication Plan	60
Appendix 23 – Stakeholder Engagement and Management Plan.....	62
Appendix 24 – Procurement and Packaging Plan (including but not limited to self-perform, subcontracting, etc.)	64
Appendix 25 – Onboarding and Training/Familiarization Plan	66

Project Management Plan

1.0 Project Management Plan (PMP)

1.1 Overview

The SFJV Project Management Plan (PMP) is the framework for our project management team. This plan is a living document and, as such, will be maintained and updated throughout the duration of the Contract, including major updates as required under PR-01 at each major design milestone: 30%, 60%, 90% and 100%. We will provide our team PMP training and each SFJV employee will be required to read and understand the plan to ensure continuity and consistency throughout our team. The plan includes companion documents for ease of understanding and organization.

1.2 Maintenance and Update of PMP

The PMP is considered a living document and, as such, is responsive and flexible. It will be continuously maintained to ensure that it is current and accurate. We will update the plan as required with the BOD, 30%, 60%, 90%, and 100% submittals and on a quarterly basis during construction.

1.3 PMP Training

The SFJV staff will be trained to fully understand and implement the ideas and concepts of the PMP for their prescribed and assigned duties. The staff will be informed and trained on any updates to the PMP and are encouraged to continuously improve upon processes and procedures defined in the plan.

1.4 PMP Outline

The PMP will be comprised of the following 25 elements as defined in PR-01 4.B.1.a.1. The elements shall be submitted separately under their respective Project Requirements Section and compiled as appendices to the overall PMP (this plan). The PMP has the scope for the DD phase as defined in the scope negotiated for Task Order PH1-TO5, and summarized in the table below:

	PR-01 4.B	SD Update Scope
1	Project Management Plan (PR-02 and PR-22)	Update
2	Traffic Management Plan (TMP)	Update
3	Construction Area Access, Phasing and Logistics Plan (PR-03)	Update
4	Safety Plan (PR-15)	Update
5	Security Plan (PR-03)	Update
6	Work Plan & Schedule (PR-04)	Update

7	Site Investigations Plan	Update
8	Design Management Plan (PR-11)	Update
9	Design Submittal Packaging Plan	Update
10	Cost Management Plan	Update
11	Project Controls Plan	Update
12	Quality Control Plan (PR-14)	Update
13	Virtual Design and Construction (VDC) and Building Information Modeling (BIM) Execution Plan (PR-21)	Update
14	Risk Management Plan	Update
15	Sustainability Plan	Develop
16	Airport Operational Readiness & Commissioning Plan (PR-26)	Deferred to Future Task Order
17	Storm Water Pollution Prevention Plan (SWPPP)	Update
18	Hazardous Materials Management Plan (HMMP)	Update
19	Environmental Monitoring and Control Plan (PR-18)	Update
20	Permitting Plan	Update
21	Third Party and Agency Coordination Plan (PR-12)	Update
22	Communication Plan	Update
23	Stakeholder Engagement and Management Plan	Update
24	Procurement and Packaging Plan (including but not limited to self-perform, subcontracting, etc.)	Update
25	Onboarding and Training/Familiarization Plan	Deferred to Future Task Order

2. Project Management and Execution

2.1 Document Control

SFJV will coordinate with LAWA and process all document control through LAWA's construction project manager software, web-based Meridian System Prolog. Skanska-Flatiron uses Procore for internal document control and will provide access to LAWA if requested, however all official transmitting and coordinating of construction documentation will be through LAWA's Prolog System.

2.2 Office Location

Co-location supports timely discussion and issue resolution. Our team's Integrated Project Office will house key project management, administrative and design management personnel. We value the opportunity to co-locate with LAWA and their PM/CM. For preconstruction SFJV is co-located with LAWA and their PM/CM at 7301 World Way West 2nd Floor. Another office will be required for the Phase 2 work to accommodate the larger Phase 2 staff, and this will be determined and included in future c/GMP's.

2.3 3rd Party Coordination

3rd party coordination will be led by Third Party Coordination manager Jill Steiner. Jill fulfills the requirements of PR-02 1.C and has been heavily involved in managing all aspects of the permit approval process for the LAWA RUE project with Skanska and the LAWA APM project with Flatiron. Jill is extremely knowledgeable and has been successful in obtaining permits and agency approvals through Caltrans, LADOT, LADBS and other AHJs, ensuring a streamlined approach to approvals. Further detail can be found in Appendix 21 – Third Party and Agency Coordination Plan.

2.4 Phasing and Logistics

SFJV will coordinate with LAWA, and all required LA City, County, and Caltrans Departments and AHJ's throughout the life of the project. SFJV will develop and maintain phasing and logistics plans that will be submitted under PR-03 as well as the requirements from PR-02 and coordinate the development of the plans with the appropriate Stakeholders throughout all stages of the Project. Preliminary phasing and logistics plans can be found in Appendix 3 – Construction Area Access, Phasing, and Logistics Plan. The completed phasing and logistics plan will be included in the GMP/CGMP proposal.

2.5 Project Meetings

All project meetings are intended to be held at the project site. Unless otherwise noted, LAWA will prepare agendas for all meetings and distribute the agenda prior to the meeting, and will distribute meeting minutes after each meeting.

2.5.1 Project Kick-off Conference

LAWA scheduled the project kick-off conference on June 20, 2023 and was attended by both SFJV and LAWA team members.

2.5.2 Design Coordination Meetings

These meetings will be scheduled as needed during the design and preconstruction phase. Primary design coordination will be with the Concourse 0 and Terminal 9 design teams.

2.5.3 Design Progress Meetings

These will be the design task force meetings where on a discipline basis the design builder facilitates LAWA's understanding of the design progress and receives input on technical matters from LAWA. These will be attended by SFJV, HNTB, and LAWA.

2.5.4 Construction Document Reviews

If LAWA requires any peer reviews or code certification of construction documents during the construction documents phase, SFJV will cooperate and coordinate with LAWA in the performance of these reviews and distribution of construction documents.

2.5.5 Preconstruction Conference

SFJV will schedule a preconstruction conference no later than 10 working days after the completion of construction documents, including LAWA, SFJV, and major SFJV subcontractors, suppliers, and other concerned parties.

2.5.6 Weekly Progress Meetings

This will be a weekly meeting with LAWA and SFJV to review and monitor progress, procedures, issues, schedules, and other concerns of the project. Per PR-02 LAWA will prepare and distribute the agenda and meeting minutes. SFJV will support LAWA with any information needed for this meeting.

2.5.7 Coordination Meetings

SFJV will hold project coordination meetings when coordination with separate LAWA contractors is needed. These are in addition to specific meetings held for other purposes such as progress meetings and pre-installation conferences.

2.6 Coordination with Work Under Separate Contracts

SFJV is aware of the central role it plays in the ATMP program with our project touching all of the other ATMP projects including Concourse 0, Terminal 9, Taxiway D&E, and the other Airfield improvement projects, as well as other LAWA projects under LAMP and other programs. SFJV will work with LAWA and LAWA's other designers and contractors from the other projects to implement interface agreements with the adjacent projects to define the coordination and hold regular coordination meetings as required for both the design and construction with the other projects. During design and preconstruction regular Design coordination meetings will be held with the design teams from the adjacent projects as described in section 2.3.2 of this PMP. During construction, coordination meetings with adjacent project construction teams will be held as described in section 2.3.7 of this PMP.

All interface agreements will be included in Appendix 1 to this PMP for reference for all project staff to understand the obligations of SFJV with the adjacent projects.

2.7 Project Organization

2.7.1 Organization Chart

The organization chart for the DD phase of the project for SFJV is included below:

2.7.2 Roles and Responsibilities

JV Executive Committee

- Provide guidance to project management
- Issue and implement company policies
- Appoint management team
- Attend periodic inspections (safety, quality) – monitor performance of both
- Attend quarterly meetings to review safety, schedule, financials
- Maintain open line of communication with SFJV team, major subcontractors, designers, and LAWA.
- Train and develop project staff
- Review cost and schedule projections - ensure action is taken on bad trends promptly

Project Manager

- Ensure safety and quality standards are being adhered to before all else
- Responsible for all financials on job
- Responsible for ensuring schedule is met
- Responsible for ensuring insurance requirements are met
- Administer the contract
- Responsible for ensuring Project staff understands roles and is on task
- Communicate and improve relations with the client
- Be the liaison between the project team and the JV executive committee

Senior Managers – Construction Manager, Design Build Manager, Estimating Manager, etc.

- Assist and support the Project Manager in the technical day to day project management responsibilities
- Ensure safety and quality standards are being adhered to before all else
- Support the Field Operations
- Administer subcontracts and purchase orders
- Provide accurate cost projections
- Be the liaison between the project team and the Project Manager
- Manage, train and develop project administrative staff
- Make arrangements for and establish location of field offices
- Monitor Project Schedule
- Monitor project costs and trends including weekly labor and monthly cost reports
- Monitor design package, shop drawing, and other submittals
- Supervise all change orders, back charges, and payment activities
- Maintain a focus on Project Close-Out for duration of the project

Safety Staff

- Work with Corporate and operations managers to ensure corporate policies are in place and being followed
- Provide and track required training
- Maintain and report required records
- Work with Superintendents and Engineers to ensure plans are in place for each task being performed
- Ensure triggers, hazards and preventative actions are identified in each plan and controls for each are being utilized in field
- Encourage Safety participation by the craft, and management
- Develop and maintain an Environmental, Health, and Safety Plan

Engineers

- Assist and support the Deputy Project Manager in the technical day to day aspects of the project
- Ensure submittals are submitted to owner accurately and timely as to not impact construction operations.
- Coordinate with and expedite subcontractors and vendors
- Ensure work plans are in place for all construction activities.
- Report costs and update quantities
- Assist field operations with Quality Control, resolve field issues and Submit RFIs
- Assist with schedule updates
- Provide daily reports

Superintendents

- Ensure all safety plans, precautions, permits, training, etc. are in place prior to starting work
- Ensure safety and quality standards are being adhered to before all else
- Manage Field Operations both long term and day to day
- Ensure work, equipment and material are laid out for manpower in advance
- Manage work to meet project schedule and budgets
- Schedule work with the owner, inspectors, community, third parties, etc.
- Coordinate work of Third Parties, subcontractors, and SFJV personnel
- Perform design constructability reviews

Design Coordinators

- Prioritize design work to meet the construction schedule
- Coordinate with other design disciplines
- Monitor and ensure designers are moving in the right direction
- Resolve issues to ensure design maintains momentum
- Coordinate constructability reviews with field operations
- Ensure design meets Owner's requirements and expectations.

QA/QC Staff

- Develop Project Quality Plan
- Ensure all Test plans, reports, procedures, requirements, etc. are met, submitted and approved.
- Coordinate testing and training
- Review Design, Equipment, and Material submittals for contract compliance
- Manage field inspectors

Scheduler

- Establish an approved Baseline Schedule
- Provide rolling schedules to LAWA and SFJV operations
- Coordinate with staff and provide monthly schedule updates
- Work with contract change department
- Analyze and ensure staff understands critical path(s)

Document Control

- Organize and process submittals, correspondence, RFIs, etc. in a timely fashion as to not impact construction operations
- Maintain a document control database with updated information which can be easily navigated by the staff
- Coordinate with the owner and other stakeholders to provide submittals in a timely, easily understandable fashion

3. Guaranteed Maximum Price (GMP) Proposals

3.1 GMP Proposals

SFJV has in initial plan of 3 (c)GMP's for the project from the proposal development, with plans to submit the cGMP's sometime after the 90% design submittals. This plan is further defined in the Cost Management Plan in Appendix 10.

(Interface agreements will be included here as they are executed with adjacent projects.

Appendix 2 – Traffic Management Plan

DETAILED DESIGN

DRAFT TRANSPORTATION MANAGEMENT PLAN

PROJECT NO: DA-5609

LAWA AIRFIELD AND TERMINAL
MODERNIZATION PROGRAM
(ATMP)

ROADWAY IMPROVEMENTS

DATE: November 15, 2024

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Contents

1. Introduction	4
Project Description.....	4
Purpose of TMP	5
Preferred Alternative	6
Existing Facilities	8
Automated People Mover (APM).....	9
Intermodal Transportation Facility (ITF) East and West.....	9
Consolidated Rent-A-Car (ConRAC).....	9
Jetway Boulevard.....	10
Airport Boulevard.....	10
Century Boulevard.....	10
Sepulveda Boulevard	11
Westchester Parkway.....	11
Aviation Boulevard	11
La Tijera Boulevard	11
Lincoln Boulevard.....	12
Imperial Highway.....	12
The Knot	12
CTA Upper Level (World Way)	12
CTA Lower Level (World Way)	12
Sky Way.....	12
Center Way	13
Vicksburg Avenue	13
Little Century Boulevard	13
Concurrent Projects	13
2. Stages of Construction	14
3. Mitigation Measures	18
4. TMP Strategies	19
Public Information	19
Public Information.....	19
Motorist Information.....	20
Changeable Message Signs (CMS)	20
Portable Changeable Message Signs (PCMS).....	20
Temporary Motorist Information Signs.....	20
Mobile Applications	20
Incident Management.....	20
Construction Strategies	21
Construction Staging	21
Traffic Handling Plans	21
Full Facility Closures	22
Night Work	22
Pedestrian/Bicycle/Transit Access Improvements	22
Maintain Business Access.....	22
Coordination with Adjacent Construction Projects	22
Demand Management.....	22
Transit Service Improvement.....	22
Alternate Routes and Detours	23

Detour and Alternative Routes.....	23
Temporary Turning Restrictions	24
Signal Timing/Coordination Improvements	24
Recommended TMP Strategies	24
TMP Special Procedures.....	24
Design, Plan, Schedule, and Coordinate Construction Activities to Reduce Disruptions to Vehicular and Pedestrian Movements within the CTA.....	24
Scheduling and Coordination with LAWA	25
Coordination with Local Enforcement and Emergency Agencies	25
Identify and Incorporate the Needs of All Airport Users and Stakeholders.....	25
Maintenance and Replacements of Traffic Control Devices, including Pavement Markings and Traffic Barriers	26
Traffic Signal Timings.....	26
Coordination with Appropriate Governmental Entities Operating Signal Network	26
Establishment of Haul Routes and the Safe Ingress and Egress of Construction Vehicles in the Work Zone.....	26
Modify Plans as Needed to Adapt to Current Project Circumstances.....	27
Communicate TMP Information to Project Public Information Personnel and Notify the Public of Maintenance of Traffic Issues.....	27
Contact Methods, Personnel Available, and Response Times for Any Deficiencies or Emergency Conditions Requiring Attention During Off-Work Hours	27
5. Key Traffic Control Personnel	29
6. Contingency Plan	30
Appendices	31
Appendix A – Preliminary Construction Phasing Plans	31
Appendix B – Lane Closure Summary Table.....	31

1. Introduction

Project Description

This Project focuses on roadway improvements to help reduce airport-related congestion on the local roadway system resulting in back-ups on public streets by redirecting airport traffic from local streets to new dedicated access roadways. A new system of roadways and bridges will be constructed to consolidate traffic away from Sepulveda Boulevard and Century Boulevard. This roadway system was evaluated under the California Environmental Quality Act (CEQA) and certified by LAWA on November 2021 via the ATMP Environmental Impact Report.

The overall purpose of this project is to improve the landside ground transportation systems at LAX. LAWA's aim is to make ground transportation, in and around the LAX campus, safe and efficient through the use of effective planning, design, and construction of roadways, as well as the use of technological advancements for the monitoring and control of transportation at LAX.

The goals and objectives of the Project are:

- A. Enhance the safety and efficiency of ground systems at LAX
 - a. Provide safe and convenient access for motor vehicles, pedestrians, and cyclists (where applicable)
 - b. Consolidate roadway access to and from the Central Terminal Area (CTA)
 - c. Separate airport traffic from local traffic on the roadway network
- B. Enhance the user experience of ground transportation systems at LAX
 - a. Reduce traffic congestion and queuing on local streets
 - b. Increase throughput into and out of the CTA
 - c. Enable Dynamic, demand-based transportation policies
- C. Modernize the transportation technology systems at LAX
 - a. Integrate intelligent transportation technologies and systems (global positioning systems, smart-parking, traffic monitoring, etc.)

The overall project area is illustrated in Figure 1. The proposed project improvements are bounded by the existing Sky Way to the west, the future Terminal 9 to the south, future Jetway Boulevard to the east, and future 94th Street to the north.

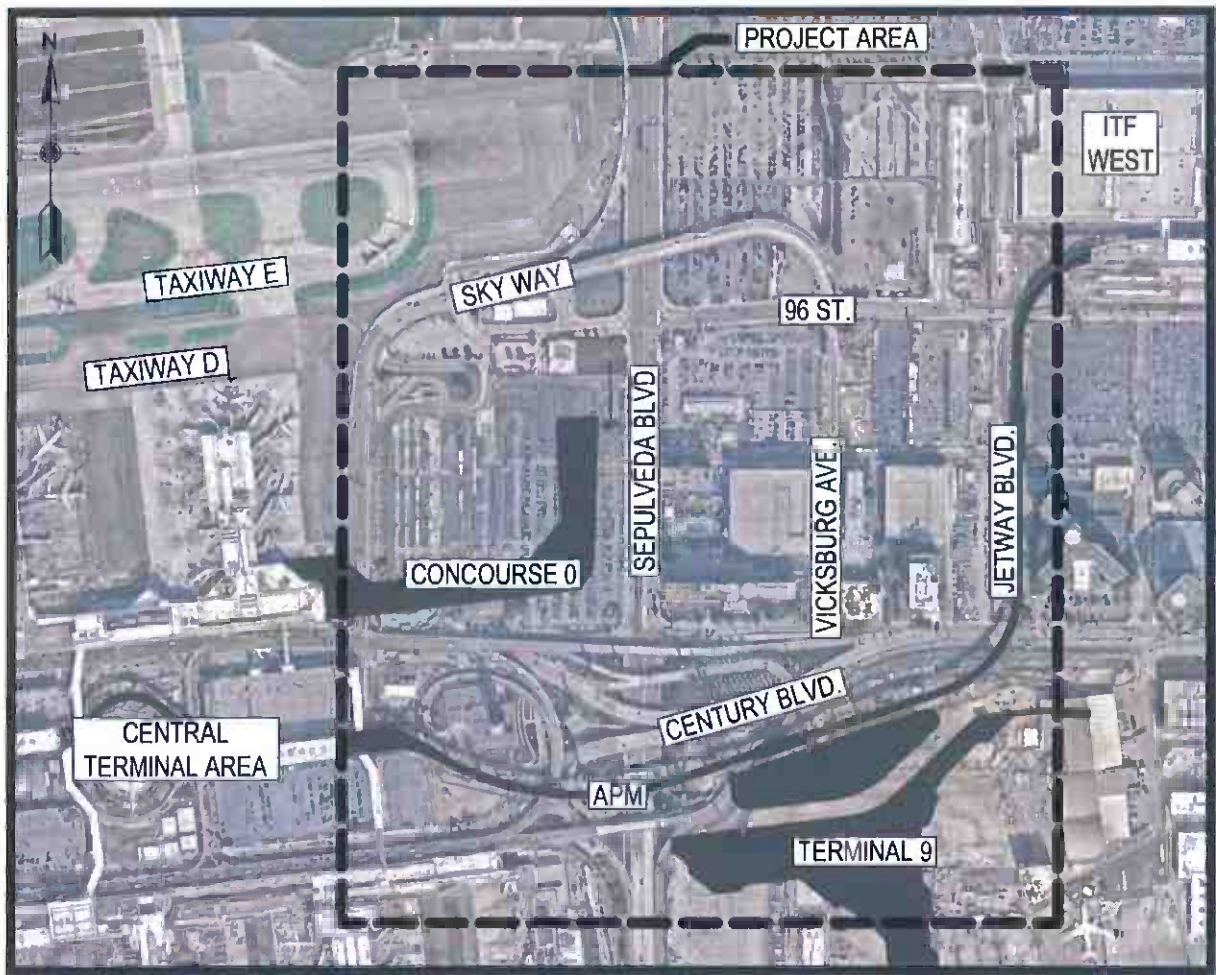


Figure 1: ATMP Project Site

Purpose of TMP

The purpose of this Traffic Management Plan (TMP) is to manage congestion in work zones and to minimize motorist delays during the project construction. The TMP outlines the strategies that should be implemented to minimize impacts to the traveling public during construction and outlines the roles and responsibilities of the project stakeholders prior to and during construction. The TMP documents the necessary operations and closures to construct the project efficiently/ effectively based on the baseline construction schedule and staging plan. The overall TMP has been developed by Skanska-Flatiron Joint Venture (SFJV), who is responsible for the design and construction of this project. The TMP will be approved by Los Angeles World Airports (LAWA), Los Angeles Department of Transportation (LADOT), and other appropriate agencies. With impacts to multiple agencies, coordination protocols and proposed strategies described in this report will be imperative to minimize delays along inbound routes to the CTA of Los Angeles International Airport (LAX).

The TMP is a living document that continually receives updates to meet the individual needs and expectations of the reviewing agencies and other stakeholders involved as the project design progresses.

Preferred Alternative

The Preferred Alternative selected by LAWA is shown in Figure 2 below. The following is a discussion of each roadway segment.

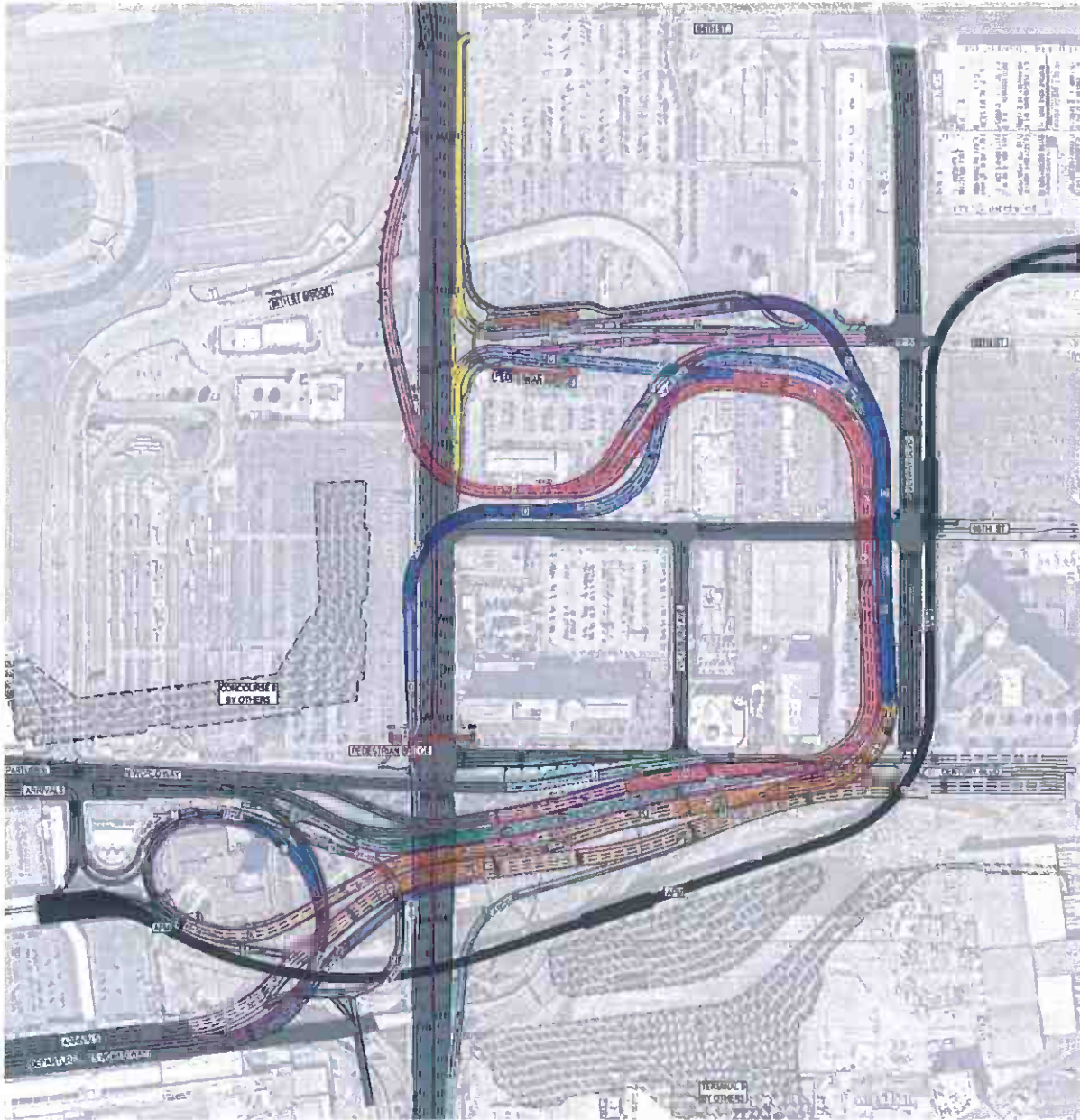


Figure 2: Preferred Alternative

The project constructs new elevated roadways to direct the inbound and outbound traffic to CTA from Sepulveda Boulevard and Century Boulevard and improves traffic congestion on these major local and regional highways. 96th Street will be modified to receive and send traffic from and to northbound Sepulveda Boulevard via the Sepulveda Boulevard/96th Street intersection. The return to departure (upper level) and arrival (lower level) access roads will also be reconstructed. Existing inbound and outbound ramps to the CTA along with the 96th Street Bridge over Sepulveda Boulevard will be removed. The following is a detailed list of the improvements:

- **Sepulveda Boulevard Modifications:** Sepulveda Boulevard will be modified in the northbound direction to allow construction of the Segment NE connection, removal of the existing CTA/Century

Boulevard ramp connection, and widened in the vicinity of 96th Street to facilitate connection to Segments C, G, E, and F. The southbound direction will be modified to provide access to Segments A and D, removal of the westerly sidewalks and median will be reconfigured for the proposed Segments A, D, I, P, K, and W overcrossing structure bents. A pedestrian bridge over Sepulveda Boulevard at Century Boulevard will be added.

- Century Boulevard Modifications: Century Boulevard will be modified at the intersection of Jetway Boulevard to provide for left turn lanes into the future Terminal 9 roadway by others, and modified approach from Segment P. The northern curb lines and travel way alignment between Jetway Boulevard and Vicksburg Avenue will be re-configured to fit columns for the Segments A and K overcrossing structures.
- Proposed Segment A: New roadway at grade and bridge from just south of the existing Lincoln Boulevard/Sepulveda Boulevard intersection to provide southbound traffic access into the CTA. This alignment varies from two to three lanes and is grade separated above Sepulveda Boulevard, 98th Street, and Century Boulevard.
- Proposed Segment C: New roadway at grade and bridge from the existing Sepulveda Boulevard/96th Street intersection to carry the northbound Sepulveda Boulevard traffic into the CTA via merging with Segment A. This alignment is two lanes and is grade separated to cross over Segments F and D.
- Proposed Segment D: New roadway at grade and bridge to carry the outbound CTA traffic via Segments K and W to southbound Sepulveda Boulevard. This alignment varies from one to four lanes and is grade separated above 98th Street, below Segments C and A, and above Sepulveda Boulevard.
- Proposed Segment E: Modifications to 96th Street roadway to provide access from northbound Sepulveda Boulevard to the Jetway Boulevard/96th Street intersection via a single lane that diverts from Segment C. A second lane adds from Segment A that serves traffic originating from southbound Sepulveda Boulevard.
- Proposed Segment G: New roadway at grade and bridge to provide access for outbound CTA to northbound Sepulveda Boulevard via Segment D. This alignment is one to two lanes grade separated over 96th Street (Segments E and H) and the driveway to the LAX City Bus Center.
- Proposed Segment H: Modifications to 96th Street roadway to provide access from northbound Sepulveda Boulevard to the Jetway Boulevard/96th Street intersection and ITF West. This alignment varies from one to two at-grade lanes.
- Proposed Segment I: New roadway at grade and bridge to provide access from westbound Century Boulevard into the CTA arrival level by joining to the Segment N. World Way. This alignment is two lanes grade separated over Sepulveda Boulevard and Segment D.
- Proposed Segment K: New roadway at grade and bridge connecting Segment L and Center Way to Segment D, to provide CTA outbound access to both northbound and southbound Sepulveda Boulevard. This alignment is two to three lanes and is grade separated under Segment L, and over Segments N, Sepulveda Boulevard and Century Boulevard.
- Modified Segment L: The existing structure connects CTA departures level to Segment K and provides CTA outbound access to northbound and southbound Sepulveda Boulevard will be modified by widening the structure from one to two lanes. This structure crosses over Segments P and K.
- Modified Segment L1: The existing structure from Segment L to CTA provides for the departure-to-departure return movement. This alignment remains at one lane and is grade separated over Segment N and may need some modifications due to the proposed widening of Segment L.

- Proposed Segment M: New bridge from CTA departures level joining Segment P with destination of eastbound Century Boulevard. This alignment varies from one to two lanes and is grade separated over Segment N and Sepulveda Boulevard.
- Proposed Segment N: New at grade roadway to provide arrival-to-arrival level return movement to CTA. This alignment is one lane and crosses under Segments L, M, P, K, and L1 bridges.
- Proposed Segment NE: New at grade roadway providing direct connection from northbound Sepulveda Boulevard to eastbound Century Boulevard via Segment P. It also provides access to future Terminal 9. This alignment is one lane and crosses under Segment W bridge.
- Proposed Segment P: New at grade roadway and bridge from CTA outbound arrivals level to Century Boulevard. This alignment varies from four to five lanes and is grade separated crossing under Segment L, and over Segments N and D, and Sepulveda Boulevard.
- Proposed Segment W: New bridge from CTA departures level to provide a connection to Terminal 9 roadways (to be designed and built by others). The segment joins Alignment D to provide access to northbound and southbound Sepulveda Boulevard from Terminal 9 roadways. This alignment varies from one to two lanes and is grade separated crossing over Sepulveda Boulevard, Segment NE, and Century Boulevard.
- World Way Modifications (Arrivals): At Sky Way the intersection will be modified to remove the north leg and it will become a T intersection.
- World Way Modifications (Departures): At Sky Way the intersection will be modified to remove the north leg and the traffic signal.
- Existing Roadway Removals: The project demolishes the following roadways:
 - Ramp from northbound Sepulveda Boulevard to CTA
 - Ramp from southbound Sepulveda Boulevard to Sky Way
 - 96th Street bridge over Sepulveda Boulevard
 - Vicksburg Ave from 96th Street to mid-block to 98th Street
 - Connector ramp between NB Sepulveda Boulevard and Vicksburg Ave
 - Intersection of Center Way, World Way, and outbound road to Century Boulevard
 - Road outbound to Century Boulevard including bridge over Sepulveda Boulevard and two associated loop ramps to Sepulveda Boulevard
 - Inbound road from Century Boulevard including bridge over Sepulveda Boulevard
 - West Century Boulevard west of Sepulveda Boulevard

Existing Facilities

In addition to critical roadways that are part of the CTA, the TMP also focuses on a much broader area outside of the project footprint and includes access roadways to LAX and the supporting local multi-modal transportation facilities. The following paragraphs in this section briefly describe the main roadways and supporting facilities in the vicinity of the project area (Figure 3). Roadway classifications per the LADOT's Mobility Plan 2035 are provided where available through the Bureau of Engineering Department of Public Works NavigateLA platform. The surrounding roadway network feeds into three traffic arteries that provide principal access to the CTA: (1) Northbound Sepulveda Boulevard using the north-to-west connectors, (2) Southbound Sepulveda Boulevard using the Sky Way connection, (3) Westbound Century Boulevard using connections to World Way.



Figure 3: Study Area Roadways

Automated People Mover (APM)

The APM is an electric train system on a 2.25-mile-long elevated guideway that will provide free transportation services for the passengers and the airport employees within the CTA and outside of the CTA. The APM is expected to open in 2025.

Intermodal Transportation Facility (ITF) East and West

The ITF East and West will provide public parking, passenger pick-up and drop-off areas, and amenities such as waiting areas and shuttle services for the passengers and the airport employees. The ITF East will be bounded by 94th Street to the north, 98th Street to the south, the Consolidated Rent-A-Car (ConRAC) facility to the east, and Aviation Boulevard to the west. The ITF West will be bounded by Westchester Boulevard to the north, 98th Street to the south, Airport Boulevard to the east, and Jetway Boulevard to the west. While the public parking structure at the ITF West is currently open, full operation of the ITF West and ITF East is expected to begin in 2025.

Consolidated Rent-A-Car (ConRAC)

The ConRAC facility will provide a centralized location for rental car agencies serving the airport. The ConRAC facility will be bounded by Arbor Vitae Street to the north, 98th Street to the south, La Cienega Boulevard to the east, and Aviation Boulevard and the ITF East to the west. The ConRAC facility is expected to open in 2025.

LAX-it

LAX-it is a drop-off/pick-up area outside of the CTA, located east of Sky Way and north of World Way (lower level) for passengers who use taxi or rideshare application services. Free transportation services between the CTA and LAX-it is provided via shuttle buses. While LAX-it is currently in operation, the facility will be permanently removed with the construction of Concourse 0. All rideshare/shuttle operations will be moved to ITF West.

Fire Station

There is a fire station (Los Angeles Fire Department Station 51) located at the southwest corner of the Terminal 8 in LAX. The access into the fire station is through Post Way which connects to Center Way. There is an egress connection that provides access directly to southbound Sepulveda Boulevard.

Jetway Boulevard

When fully constructed, Jetway Boulevard will extend north-south from Westchester Parkway to Century Boulevard. It consists of four lanes, two in each direction along with a painted median to accommodate northbound and southbound left-turn lanes. On-street parking is prohibited on both sides of the road. Sidewalks are provided on both sides. The posted speed limit is 25 miles per hour (mph). The segment between Westchester Parkway and north of 96th Street is open but the segment from north of 96th Street to Century Boulevard is still under construction and not open to traffic. It provides a north-south connection between Century Boulevard and ITF West (including the APM station). Parking facilities are provided as part of the APM to facilitate people intend to use the service. Bike lanes are proposed to be installed along Jetway Boulevard.

Airport Boulevard

Airport Boulevard extends north-south from 74th Street to Century Boulevard. North of La Tijera Boulevard, Airport Boulevard is a two-lane roadway (one lane in each direction), traveling through residential neighborhoods, with parking available on both sides. Sidewalks are also provided on both sides.

South of La Tijera Boulevard, Airport Boulevard is a four-lane roadway (two lanes in each direction along with a painted median to accommodate southbound left-turn lanes) with a posted speed limit of 35 mph. On-street parking is allowed at some locations in the east side, but parking restrictions exist on along the entire west side of the roadway. Sidewalks are also provided on both sides of the street. There is no bike lane provided with the exception of the segment between Westchester Parkway and Manchester Avenue, where a bike lane is striped northbound and southbound.

The section between 98th Street and Westchester Pkwy is classified as Modified Boulevard I. The section between Century Boulevard and 98th Street and the section between Westchester Pkwy and La Tijera Boulevard is classified as Boulevard II. The section north of the La Tijera Boulevard intersection is classified as Collector.

Century Boulevard

Century Boulevard is the LAX's main east-west local connection with direct connectors that feed the CTA departures and arrivals. Century Boulevard is generally three lanes in each direction with a raised median in the study area. Extra lane capacity is provided as Century Boulevard nears the airport facilities. On-street parking restrictions exist on both sides of the roadway throughout the study area. Several hotel and office facilities are accessed via Century Boulevard. Century Boulevard is classified as a Boulevard I, west of Avion Drive and classified as a Modified Boulevard I between Avion Drive and I-405. No striped bike lanes are available along this roadway, and it serves Metro Bus Route 117. During elevated airport demand, Century Boulevard experiences heavy congestion in the WB direction that extends to Airport Boulevard during the evening hours. The posted speed limit along Century Boulevard is 35 mph.

Sepulveda Boulevard

Sepulveda Boulevard is a major north-south roadway that extends through much of the Los Angeles Greater Region and then transitions into Pacific Coast Highway to the south. In the vicinity of LAX, Sepulveda Boulevard is generally three lanes in each direction with portions that expand to four lanes in each direction. Sepulveda Boulevard is a critical connection to the CTA from I-105 (via a tunnel that traverses under the main southern runways) and coastal cities to the north. Airport traffic that does not chose Century Boulevard as a route will chose northbound or southbound Sepulveda Boulevard as their main route in and out of the CTA. Sepulveda Boulevard is classified as a Boulevard I throughout the project area. Sidewalk facilities are generally provided on both sides of Sepulveda Boulevard with the exception of the tunnel area, where pedestrian and bicycle activities are restricted. Bike lanes are provided along Sepulveda Boulevard north of Manchester Avenue; however, are not available near the connections with the CTA. Speed limits in the study area vary from 35 to 40 mph. Culver CityBus Routes 6 and R6 as well as Metro Bus 8 and 232 use Sepulveda Boulevard to provide transit connections to the airport facilities.

Sepulveda Boulevard is generally congested during both peak periods due to the constrained capacities at the airport connections. Queues may develop in both directions that extend back to the I-105 interchange (northbound) and Manchester Boulevard (southbound).

Westchester Parkway

Westchester Parkway is an east-west roadway that extends from Pershing Drive (west of LAX) and continues as Arbor Vitae Street east of the intersection of Airport Boulevard. Westchester Parkway is two lanes in each direction throughout the study area. With the exception of some blocks east of Sepulveda Boulevard, on-street parking is restricted in both directions of this roadway. Westchester Parkway is classified as a Boulevard II west of Will Rogers Street and as a Modified Boulevard II east of Jenny Avenue. The posted speed limit along Westchester Parkway is 40 mph in the study area. Westchester Parkway serves transit line Metro Bus 111 as an east-west route north of LAX. A striped bike lane is provided in each direction of Westchester Parkway, west of Sepulveda Westway and it also includes a wide landscaped or striped median.

Aviation Boulevard

Aviation Boulevard is a north-south roadway east of LAX that provided connections to the ConRAC and ITF East. Aviation Boulevard is generally two lanes in each direction from I-105 to Manchester Avenue. Aviation Boulevard is classified as a Boulevard II south of 98th Street and Modified Boulevard II between 98th Street and Arbor Vitae Street. Sidewalks along the northbound direction are provided between Imperial Highway and 111th Street. Sidewalks continue on the northbound side north of 104th Street and eventually on both sides of Aviation Boulevard, north of Arbor Vitae Street. The posted speed limit along Aviation Boulevard is 40 mph. On street parking is restricted for most of the study area limits, with the exception of small portions between Arbor Vitae Street and Manchester Boulevard. Transit routes Big Blue Bus routes 3 and R3, Culver CityBus routes 6 and R6, Metro Bus routes CKL, GTrans route 5 and Torrance Transit route 8 all use Aviation Boulevard. Bike lanes are available in both directions of Aviation Boulevard, south of Century Boulevard. There is currently a temporary roadway serving traffic along a portion of Aviation Boulevard north of Century Boulevard to facilitate construction of the 96th Street underpass.

La Tijera Boulevard

La Tijera Boulevard is a northwest-southeast roadway that connects to Westchester Parkway north of LAX. La Tijera Boulevard is generally two lanes in each direction and has a posted speed limit of 40 mph. La Tijera Boulevard is classified as a Boulevard II throughout the project area. Sidewalks are generally available on both sides of the roadway; however, La Tijera Boulevard does not provide striped bike lanes. On-street parking is allowed on both sides between Sepulveda Boulevard and Manchester Avenue. La Tijera Boulevard provides transit service to Metro Bus Route 102.

Lincoln Boulevard

Lincoln Boulevard is an east-west and then north-south roadway that connects to Sepulveda Boulevard. North of LAX, Lincoln Boulevard continues as State Route 1 into the coastal cities west of Los Angeles. In the study area Lincoln Boulevard is generally two lanes in each direction with a posted speed limit of 40 mph. Lincoln Boulevard is classified as a Boulevard I. Sidewalks are provided on each side of the roadway; however, bike lanes are not available. Lincoln Boulevard provides transit service to Big Blue Bus routes 3 and R3.

Imperial Highway

Imperial Highway is an east-west arterial that parallels I-105 to its terminus located south of LAX. In the study area, Imperial Highway is generally three lanes in each direction with a wide striped median. On-street parking is restricted in both directions of Imperial Highway due to the striped bike lanes that are available between Sepulveda Boulevard and Aviation Boulevard. Sidewalks are available on both sides of Imperial Highway. The posted speed limit in the study area is 40 mph. Imperial Highway provides transit service to LADOT Commuter Express Route 438, Beach City Transit, and Torrance Transit Route 8.

The Knot

"The Knot" is a term used to reference the three-level interchange that crosses over Sepulveda Boulevard adjacent to the CTA. There are connector ramps that provide access from Sepulveda Boulevard to the upper and lower levels in the CTA. The Knot also includes direct connectors to and from Century Boulevard. There are ramps from upper and lower level of the CTA to northbound/southbound Sepulveda Boulevard and eastbound Century Boulevard. Two connections are provided that serve as airport returns from upper and lower of the CTA back to CTA. There are two loop ramps that connect Sepulveda southbound to Century Boulevard eastbound and Century Boulevard eastbound to Sepulveda Boulevard northbound. The APM link also crosses over the Sepulveda Boulevard interchange and connects to CTA on Center Way.

CTA Upper Level (World Way)

CTA upper level is a one-way loop that consists of three traffic lanes plus two drop off/pick up lanes. The departure terminals are located on the outer side of the road and parking structures are located on the inner side. Two signalized pedestrian crossings are available on the upper level that provide access from Parking Structures 3 and 4 to Tom Bradley International Terminal. There are two connection roads, East Way and West Way that are perpendicular to the loop with East Way being a two-way road and West Way being one way westbound for the upper-level loop. Sidewalks are provided along the terminal side of the loop. The posted speed limit is 25 mph. No bike lanes are provided along CTA upper level.

CTA Lower Level (World Way)

CTA lower level is a one-way loop with three to five lanes and two drop off/pick up lanes. The arrival terminals are located on the outer side of the World Way and parking structures are located on the inner side. There are 18 signalized pedestrian crossings along the lower-level loop that provide access from the inner parking structures to the terminals. There are two connection roads, East Way and West Way that are perpendicular to the loop. Sidewalks are provided along the terminal side of the loop. The posted speed limit is 25 mph. No bike lanes are provided along CTA lower level.

Sky Way

Sky Way is a two-way north-south roadway that provides three traffic southbound lanes and two northbound lanes. Sky Way connects southbound Sepulveda Boulevard from north of LAX and splits to World Way upper and lower level prior to entering the CTA. There are no bike lanes nor bus routes available on Sky Way. A sidewalk is provided on the south/east side of Sky Way (lower level). The posted speed limit is 25 mph. In its current operations, Sky Way provides the main access to the LAX-it facility from the northbound and southbound directions.

Center Way

Center Way is a one-way eastbound road that connects the inner CTA facilities such as the parking structure exits, air traffic control, the Theme Building, and the LAX administration buildings. Center Way is generally three lanes but has added lanes when merging into other roadways as it exits the CTA. There are no bike lanes along Center Way and sidewalks are provided in at least one direction.

Vicksburg Avenue

Vicksburg Avenue is a north-south roadway that connects Century Boulevard and 96th Street and provides access to hotel establishments and several parking facilities. To the north, Vicksburg Avenue provides an alternate connection from the east side of Sepulveda Boulevard to the west side via the 96th Street Bridge. Vicksburg Avenue is generally one lane in each direction south of the bridge. At the bridge, two lanes in each direction are provided. A direct connection between northbound Sepulveda Boulevard and Vicksburg Avenue exists via a signalized intersection at Century Boulevard. Sidewalks are provided in both directions south of the bridge but are only limited on one side over Sepulveda Boulevard. Metered parking spaces are available on both sides of Vicksburg Avenue near Century Boulevard and restricted elsewhere.

Little Century Boulevard

"Little Century" Boulevard is the westbound extension of Century Boulevard, downstream of the direct ramps to CTA, that connects to northbound/southbound Sepulveda Boulevard and continues to the outside facilities in the lower level of the CTA. Little Century Boulevard also provides connection to Vicksburg Avenue and the surrounding hotel and parking facilities. A sidewalk is provided on the north side of the road. On-street parking is not permitted along Little Century Boulevard.

Concurrent Projects

The proposed project is part of the overall LAWA Airfield and Terminal Modernization Project that proposed a series of infrastructure improvements to maintain LAX as a world-class airport. The proposed project discussed in this TMP report is focused on the landside improvements that includes the project's access roadways and reconfigurations. Two major airside improvements are proposed as part of the larger program. Details for each project are as follows:

- Concourse 0 is a proposed expansion of Terminal 1, which currently serves domestic and international flights. Concourse 0 will be located north of World Way and to the west of Sepulveda Boulevard. Concourse 0 will repurpose the land currently occupied by LAX-it and the Sky Way access to the CTA. The landside construction of Concourse 0 is expected to occur after the proposed project is completed.
- Terminal 9 is a proposed new international terminal that will be located to the east of Sepulveda Boulevard and to the south of Century Boulevard. Access to this terminal will be via Century Boulevard at a signalized intersection approach that will connect to Jetway Boulevard. Terminal 9 will have a connection from the CTA via an elevated roadway that will be grade-separated over Sepulveda Boulevard and connect to the pick-up/drop-off levels of the proposed terminal. Both main access points will connect to a two-level (upper and lower) inner roadway system similar to the CTA. While the proposed terminal construction will occur concurrently with the proposed project, the opening day will be after the proposed roadways and reconfigurations for ATMP are completed. Details for the Terminal 9 project will evolve as this TMP report is revised in later phases of this project.

2. Stages of Construction

The overall approach to the construction staging was centered around the handling of existing traffic accessing the LAX supporting facilities and the CTA while the new proposed access roadways and bridges are being constructed. Due to the volume of traffic traveling through the principal arterials into/out of the CTA, it is not possible to stage construction in a manner that would close/reroute more than one principal arterial at the same time. The closure of one principal arterial will lead to additional vehicle delay that can be minimized with temporary mitigation measures during construction. The closure of two principal arterials at the same time would lead to catastrophic traffic impacts to travelers into/out of the CTA that cannot be mitigated. Therefore, the SFJV developed the phasing and sequencing of work accordingly. The current construction staging approach does not interrupt any of the main principal arterials into the CTA for long-term periods.

The project will be constructed in six major stages, building as much of the project outside of active roadways as possible while keeping traffic on existing routes. Construction will begin with the area north of Century Boulevard focusing on building inbound access while preserving inbound access to the CTA via Sepulveda Boulevard. Once the inbound Sepulveda Boulevard movements are complete the focus will be on the area south of Century Boulevard to complete outbound CTA access to both Century Boulevard and Sepulveda Boulevard.

Table 1 below highlights the goal of each stage of construction and provides a list of construction activities and where traffic will be located during each stage. The Preliminary Phasing Plans are depicted in Appendix A. Note that the plans and exhibits attached to this TMP are preliminary (60% level at the time of this report preparation). Staging plans and associated analysis will be continually updated and revised as design and construction activities advance to later phases of the project.

Table 1: Construction Phasing and Traffic Handling

Stage/Phase	Construction Activities	Traffic Handling
Stage 1 Phase A	<ol style="list-style-type: none"> 1. Build temporary pavements for use in following Stages. 2. Build Wall J-2. 3. Build RC box culvert. 	<ol style="list-style-type: none"> A. Permanently close NB Sepulveda Blvd to Vicksburg Ave ramp. B. Permanently close west side of 96th St. C. Temporarily close EB Century Blvd to NB Jetway Blvd double left turn lanes. Detour to Airport Blvd to 98th St. D. Permanently close Sepulveda west side sidewalk, detour pedestrians. E. Reduce WB Little Century to 1 lane. F. Reduce SB Sepulveda Blvd to 3 lanes. G. Temporarily reduce EB Century Blvd to 2 lanes, 3 EB lanes with NB Sepulveda Blvd to EB Century Blvd add lane. H. Permanently drop 3rd add lane on WB Century Blvd to World Way. I. Provide for single left for EB World Way return to arrivals.
Stage 1 Phase B	<ol style="list-style-type: none"> 1. Build temporary J pavement for use in following stages. 	<ol style="list-style-type: none"> A. Shift 3 lanes EB Century Blvd traffic to temp widening. B. EB Century Blvd to NB Jetway Blvd lefts remain closed.
Stage 2 Phase A	<ol style="list-style-type: none"> 1. Construct foundations for L bridge and retaining walls. 2. Construct foundations for bridges north of 98th St & west of Century Blvd. 3. Construct center A and D bridge shafts/columns on Sepulveda Blvd. 4. Construct pedestrian bridge over Sepulveda Blvd. 	<ol style="list-style-type: none"> A. Shift WB Little Century to CTA Departures onto Temp J pavement. B. Close WB World Way return road to Sky Way/Arrivals. C. Shift Arrivals to Arrivals return road to temp pavement. D. Reduce Jetway Blvd to 1 lane each direction at Century Blvd. Provide left turn lanes at 98th St. All lanes open at 96th St. E. Reduce WB Little Century to 3 lanes at Sepulveda Blvd. F. Reduce NB Sepulveda Blvd to 3 lanes at Little Century. G. EB Century Blvd to NB Jetway Blvd lefts remain closed. H. Close Vicksburg Ave between 98th St and 96th St. I. Reduce 96th St to 1 lane each direction between Vicksburg Ave and west of Jetway Blvd. J. Divert 96th St traffic to Vicksburg (96th St) bridge over Sepulveda Blvd to and from CTA.
Stage 2 Phase B	<ol style="list-style-type: none"> 1. Construct foundations for A bridge west of Jetway Blvd. 2. Construct A and D bridge abutments/walls west of Sepulveda Blvd. 3. Construct retaining walls for bridges north of 98th St & west of Century Blvd. 4. Construct L bridge superstructure. 5. Construct pedestrian bridge over 96th St. 6. Construct G bridge foundations. 	<ol style="list-style-type: none"> A. Construct G bridge foundations. B. EB Century Blvd to NB Jetway Blvd lefts, Center Way, 96th St remain closed. C. Divert pedestrians on Century Blvd to Pedestrian bridge over Century Blvd. Close crosswalk on Sepulveda Blvd.

Table 1: Construction Phasing and Traffic Handling

Stage/Phase	Construction Activities	Traffic Handling
Stage 2 Phase C	<ol style="list-style-type: none"> Construct A and D bridge superstructures. Construct A, D, E, F and G ramp pavements. Construct SB Sepulveda Blvd to A ramp temporary ramp connection. 	<ol style="list-style-type: none"> Close 98th St between Sepulveda Blvd and commercial drives. Open Center Way. EB Century Blvd to NB Jetway Blvd lefts, 96th St remain closed.
Stage 2 Phase D	<ol style="list-style-type: none"> Construct D and G bridge superstructures west of Jetway Blvd. 	<ol style="list-style-type: none"> Open 98th St. EB Century Blvd to NB Jetway Blvd lefts, 96th St remain closed
Stage 3 Phase A	<ol style="list-style-type: none"> Construct NB Sepulveda Blvd pavement widening. Construct EB 96th St pavement west of Jetway Blvd. Construct of WB 96th St west of Vicksburg Ave. Construct northside of J pavement. 	<ol style="list-style-type: none"> Divert peds to Ped bridge over 96th St. Close crosswalk on 96th St. EB Century Blvd to NB Jetway Blvd lefts, 96th St remains closed.
Stage 3 Phase B	<ol style="list-style-type: none"> Construct southside of J pavement. Construct A ramp tie into to existing pavement east of Sepulveda Blvd. 	<ol style="list-style-type: none"> Shift J ramp traffic to build north side. EB Century Blvd to NB Jetway Blvd lefts, 96th St. remains closed.
Stage 4 Phase A	<ol style="list-style-type: none"> Construct remaining portion A ramp retaining wall off SB Sepulveda Blvd. Construct I bridge foundations and retaining wall. Demo existing NB Sepulveda Blvd to CTA hook ramp bridge. 	<ol style="list-style-type: none"> Shift NB and SB Sepulveda to new A ramp into CTA. Close Sky Way. Open EB 96th St from Sepulveda Blvd to 96th St. EB Century Blvd to NB Jetway Blvd lefts remain closed.
Stage 4 Phase B	<ol style="list-style-type: none"> Construct remaining portion A ramp pavement off SB Sepulveda Blvd. Construct I bridge superstructure and ramp pavement. 	<ol style="list-style-type: none"> EB Century Blvd to NB Jetway Blvd lefts remain closed.
Stage 4 Phase C	<ol style="list-style-type: none"> Construct D bridge foundations. Demo existing WB Century Blvd bridge over Sepulveda Blvd. 	<ol style="list-style-type: none"> Shift WB Century Blvd traffic to CTA arrivals to new I ramp. Shift SB Sepulveda Blvd to CTA to new pavement on north end. EB Century Blvd to NB Jetway Blvd lefts remain closed.
Stage 5 Phase A	<ol style="list-style-type: none"> Construct D bridge superstructure. Construct K and P bridge foundations. Construct WB 96th St pavement between Jetway Blvd and existing Vicksburg Ave. Construct remaining G ramp pavement and retaining walls. Construct SB Sepulveda Blvd widening. 	<ol style="list-style-type: none"> Close SB Sepulveda Blvd to EB Century Blvd loop ramp. Keep access to Post Way. Close CTA arrivals to arrivals return road. Close WB 96th St to 96th St bridge. EB Century Blvd to NB Jetway Blvd lefts remain closed.
Stage 5 Phase B	<ol style="list-style-type: none"> Construct K and P ramp pavement. Construct K and P superstructure. Construct portion of N ramp 	<ol style="list-style-type: none"> Open WB 96th St between Sepulveda Blvd and Jetway Blvd. EB Century Blvd to NB Jetway Blvd lefts remain closed.

Table 1: Construction Phasing and Traffic Handling

Stage/Phase	Construction Activities	Traffic Handling
Stage 6 Phase A	<ol style="list-style-type: none"> 1. Construct portion of NE ramp pavement. 2. Construct remaining portion of N ramp. 3. Demo existing EB CTA bridge over Sepulveda Blvd. 	<ol style="list-style-type: none"> A. Shift CTA outbound traffic to new K, P and D ramps and bridges to NB/ SB Sepulveda Blvd and EB Century Blvd. B. EB Century Blvd to NB Jetway Blvd lefts remain closed.
Stage 6 Phase B	<ol style="list-style-type: none"> 1. Construct M ramp and bridge. 2. Construct remaining portions of EB Century Blvd pavement west of Jetway Blvd. 	<ol style="list-style-type: none"> A. EB Century Blvd to NB Jetway Blvd lefts remain closed.
Stage 6 Phase C	<ol style="list-style-type: none"> 1. Demo existing CTA departures bridge over Sepulveda Blvd. 2. Demo existing NB Sepulveda Blvd to EB Century Blvd ramp and retaining walls. 3. Construct remaining EB Century Blvd pavement. 	<ol style="list-style-type: none"> A. Open EB Century Blvd to NB Jetway Blvd and SB Jetway Blvd to EB Century Blvd left turn lanes. B. Shift CTA departures traffic to new M bridge and ramp.
Stage 6 Phase D	<ol style="list-style-type: none"> 1. Construct remaining portions of NE ramp and widening on NB Sepulveda Blvd NB. 	

Blvd=Boulevard; Ave=Avenue; St=Street, Hwy= Highway; Pkwy=Parkway; Rd=Road; Dr=Drive; NB= Northbound; SB=Southbound; EB= Eastbound; WB= Westbound; NE=Northeast

3. Mitigation Measures

Application of traffic control devices or mitigation strategies will be consistent with the standards outlined in the Manual on Uniform Traffic Control Devices (MUTCD) and Caltrans guidelines. These standards ensure that all traffic control devices, such as signage, signals, and roadway markings, are appropriately placed, designed, and maintained to protect the safety of drivers, pedestrian, and workers within the work zone.

4. TMP Strategies

This section describes the TMP strategies that may be implemented throughout all stages of the project. Caltrans Transportation Management Plan Guidelines (2015) defines the following six categories of TMP operational and demand management strategies that are designed to minimize the traffic effects during periods of construction activities:

- **Public Information:** Strategies in this category are designed to inform motorists of potential closures or delays prior to initiating their trips so that alternative plans can be considered. Since the majority of the affected traffic in the study area is airport traffic, there are effective ways to raise traveler awareness through various media outlets. Public awareness through this strategy can greatly relieve the congestion anticipated due to project construction.
- **Motorist Information:** Strategies in this category involve information disseminated to motorist real-time at key decision points as they approach a work zone or potential closures to generate project diversion. Key information available are alternative routes, total expected travel times, description of the closure downstream. Motorists informed of the length, intensity, and reasons for delays are less likely to become stressed or further contribute to congestion due to the project.
- **Incident Management:** Strategies in this category utilize existing protocols and systems to provide real-time solutions to a traffic incident. Transportation management centers, traffic management teams, and implementation of intelligent transportation systems are effective ways to reduce potential congestion as quickly as possible.
- **Construction Strategies:** Strategies in this category provide clear separation between worker and motorist for construction safety, streamline the construction of the project while maintaining the continuity of existing roadway facilities, and minimize the true impact of construction by considering congested traveling peaks in the planning of necessary minor and major closures.
- **Demand Management:** Demand management strategies work to attempt to reduce peak period travel through a work zone by varying work hours and/or encouraging carpooling/mass transit alternatives. Reduced parking or transit fees may be implemented to encourage commuters to travel together. Inbound travelers are expected to have various traveling alternatives during construction once all transportation facilities around the project area particularly the APM are completed. This can prove to be the most effective strategy to minimize traveling delays to airport passengers.
- **Alternate Routes (or Detours):** This strategy can give the opportunity to the motorist to completely avoid a work zone and the related congestion. Detours are closely examined with the local agencies to determine the effectiveness and supplemental strategies to enhance vehicular throughput during construction. This is done by adjusting signal timing at critical intersections or assigning traffic control officers during the congested peak periods. While the analysis in this TMP is focused on the proposed primary detour, secondary detours may be applicable to reduce delays for airport entering and exiting traffic.

As previously discussed, SFJV will continue to update the TMP as more information becomes available for each of these strategies based on continuous coordination meetings with LAWA, LADOT, and other local agencies throughout the design phase of the project. SFJV has added Fryman Management to the team that will serve as the MOT Management contractor, under the direction of Ross Fryman. Fryman Management will be responsible for the implementation of the TMP strategies described in the subsections below and will lead the coordination efforts with LAWA, Caltrans, City of Los Angeles, and the local agencies.

Public Information

Public Information

SFJV is responsible for working closely with and supporting LAWA, LADOT, Caltrans, and other affected local agencies to notify all affected audiences about the construction impacts.

Motorist Information

Changeable Message Signs (CMS)

These permanent overhead message signs are placed along roadways to notify road users of lane and road closures, work activities, traffic incidents, potential work zone hazards, traffic queues (backups), travel times, or delay information, as well as alternate routes in or around the work zone. Coordination with the local agencies will be needed to determine which existing CMSs are available for use during major construction activities.

There are two existing CMSs available within the project area. There are two "Gateway to LAX" CMS signs. One is located one on Century Boulevard and the other on Imperial Highway facing westbound traffic travelling to the airport. However, the "Gateway to LAX" signs are no longer operational due to outdated communication protocols.

New CMS signs installed as part of the project may be used to support traffic control operations as they come online in later phases of the project.

Portable Changeable Message Signs (PCMS)

PCMS are some of the most effective ways to alert drivers of downstream lane closures, full closures, active/upcoming detours, and construction delays. As part of the overall maintenance of traffic strategy, PCMS will be strategically placed at locations where motorists are expected to seek alternative routes and avoid downstream congestion. Specific locations of these PCMS will be identified in the detour and detailed traffic handling plans during a later design phase of this project.

Additional PCMS will be made available during the project and may be placed and operated as deemed necessary.

During construction, PCMS will be checked nightly and fixed or replaced as needed so that that they are in proper working condition.

Temporary Motorist Information Signs

Ground mounted signs are another effective strategy to alert motorists about upcoming construction activities, changes in downstream lane configurations, and proposed detours.

Signs will be used during the construction of the project and these signs shall be placed at appropriate locations to guide motorists through the construction zones and detour routes. Ground mounted signs will be maintained and updated to keep information current and accurate.

Ground mounted signs will also provide advance warnings to motorists of future roadway and/or intersection closures.

Specific locations of these ground-mounted signs will be identified in the detour and detailed traffic handling plans during a later design phase of this project.

Mobile Applications

SFJV/HNTB will support LAWA operations with coordination and outreach to mobile application developers to ensure proper information is presented to motorists during construction activities that impact roadways.

Incident Management

During the construction of the project, SFJV will support LAWA Traffic Management Center (TMC) in identifying, assessing, responding to, and resolving disruptions that occur and impact traffic. The goal is to minimize the impact of incidents on the project's productivity while maintaining airport operations. SFJV will work closely with LAWA Landside Operations in managing Tier 1 (Emergencies) and Tier 2 (Incidents) throughout the LAWA Box.

Tier 1 – Project Emergency*

- | | |
|------------------------|---------------------------|
| • Fire: | 911 or (424) 646-7911 |
| • Life Safety/Medical: | 911 or (424) 646-7911 |
| • Environmental: | 911 or (424) 646-7911 |
| • Property: | 911 or (424) 646-7911 |
| • ARCC: | (424) 646-5292 – Option 5 |
| • LAWA Landside Ops: | (310) 654-3094 |

*In case of life-threatening emergency, every employee is trained and empowered to contact emergency response service(s) if needed or required.

Tier 2 – Incident Response Notification (Verbal)

In the event of an incident or injury, SFJV shall immediately notify the following:

- | | |
|----------------------------------|----------------|
| • ARCC | (424) 646-5292 |
| • LAWA Landside Ops | (310) 654-3094 |
| • LAWA Traffic Management Center | (424) 646-5862 |
| • LAWA ATMP Safety Manager | (###) ###-#### |
| • LAWA ATMP Project Manager | (###) ###-#### |

Tier 2 – Incident Response Notification (Written)

SFJV shall provide written notification within 1 hour of an incident, regardless of the severity.

The written Initial Notification Form, at a minimum, shall include the following:

- What the nature of the incident was?
- Who was directly involved in the incident?
- The date, time, and location of the incident?
- Why the incident occurred?
- What initial actions were taken?

Within that first hour of the incident, with the exception of rescue and emergency procedures, the Contractor shall secure the area. The incident scene shall not be disturbed until it has been released by the investigating official. When necessary, the contractor in conjunction with Airport Operations will modify construction activities or lane closures in the event of an incident to maximize traffic flow.

Construction Strategies

Construction Staging

Construction staging is designed to provide the maximum working envelopes for construction activities while minimizing the effects on lane configurations on the existing operational roadways. As described in Table 1 and detailed in Appendix A, the design team has determined a preliminary construction phasing approach that divides the project construction into six stages.

Traffic Handling Plans

Traffic handling plans are prepared based on the construction staging approach. These plans provide details on temporary lane configurations (including lane widths), roadside signage, PCMS placement, overnight closures areas, and proposed work zones. Traffic handling plans are supplemented with temporary lighting plans, temporary signal plans, temporary drainage plans, and other temporary electrical elements that are affected by construction. Traffic handling will fall into two categories, long-term static

closures and off-peak dynamic closures. Long-term static closures are detailed in the MOT Staging Plans prepared in the milestone design phases. Dynamic closures will be detailed through the Area Shutdown Request (ASR)/LAWA Impact Request (LIR) and Worksite Traffic Control Plan (WTCP) processes. A chart showing the assumptions regarding hours, location, and quantity of closures is included in Appendix B.

Full Facility Closures

This strategy involves complete closure of a roadway (either in one or both directions). Full closures can minimize the duration of the project and improve worker safety. Full closures for this project will be brief (intermittent, off-peak). Full closures are anticipated along Sepulveda Boulevard, Century Boulevard, 98th Street, and 96th Street for falsework setup and bridge demolitions. Details of the anticipated full closures will be available as the preliminary phasing concept advances into detailed design, and the assumptions are detailed in Appendix B.

Night Work

To reduce the impacts to motorists, bicyclist, pedestrians, and adjacent businesses, work hours for certain construction activities will occur during the nighttime period (the end of the evening peak period to the beginning of the morning peak period). Night work allows for more lane to be closed due to lower traffic volumes, which increases work productivity and provides for a safer work zone for the contractor. Details of the anticipated night work will be available as the preliminary phasing concept advances into detailed design and are included in Appendix B.

Pedestrian/Bicycle/Transit Access Improvements

Where pedestrian, bicycle, and transit routes are temporarily blocked by construction closures, the Contractor will coordinate with the local agencies, appropriate property owners, and relevant parties in order to provide alternative access. Pedestrian, bicycle, and transit will be monitored to determine the effect of the street closures. Pedestrian facilities will be maintained whenever feasible. Temporary pedestrian facilities will comply with ADA requirements and will be clearly signed with temporary lighting as required. Temporary and permanent bus stop relocations will be coordinated with the appropriate transit agencies and route diversions will consider minimizing disruption caused by construction while preserving transfer opportunities.

Maintain Business Access

Construction activities and potential closures will be coordinated with the local agencies and property owners. When construction conflicts with a business driveway (or driveways), access will be maintained at all times on at least one driveway during construction. If only one driveway exists, the driveway construction will be staged so that one half of the driveway is open at all times. If all driveway options are exhausted, then construction activities will be planned around the business hours. In the event that access cannot be maintained, alternate routes may also be provided. Special attention has been given to the businesses directly impacted by the project including but not limited to: the Gateway LAX business district, Hyatt Regency Hotel, H Hotel, Sheraton Hotel, WallyPark, and Joe's Parking.

Coordination with Adjacent Construction Projects

SFJV will coordinate with adjacent projects as needed to support LAWA's overall program and ensure operations progress as smoothly as possible. To date SFJV has participated in coordination meetings with Terminal 9, Concourse 0, the CTA Landscaping project, LAWA's wayfinding project, Taxiway D&E, ATSAC hub relocation, among others and will continue to coordinate.

Demand Management

Transit Service Improvement

Where appropriate, transit service improvements may include the modification of transit schedules or routes, increase frequency, or the establishment of transit service in or near the project corridor. Temporary

bus stops and route diversions will be implemented as a result of project construction and closure activities. Short term bus stop closures should be coordinated with [TBD] center at XXXXXX@XXXXXXXXX or XXX.XXX.XXXX two (2) weeks prior to a change. Construction related bus stop signage and information shall be provided 3-4 weeks before construction begins at bus stops. Long term bus stop relocations or closures being affected longer than two (2) months should be coordinated with [TBD] department at XXXXXX@XXXXXXXXX or XXX.XXX.XXXX four (4) weeks prior to a change.

The existing bus stop locations within the study area is shown in Figure 4 Alternative drop off/pick up locations for the affected bus stops will be coordinated with LAWA and the affected transit agencies.

The airport patrons will be encouraged to use the APM to commute between CTA and ITF East and West.

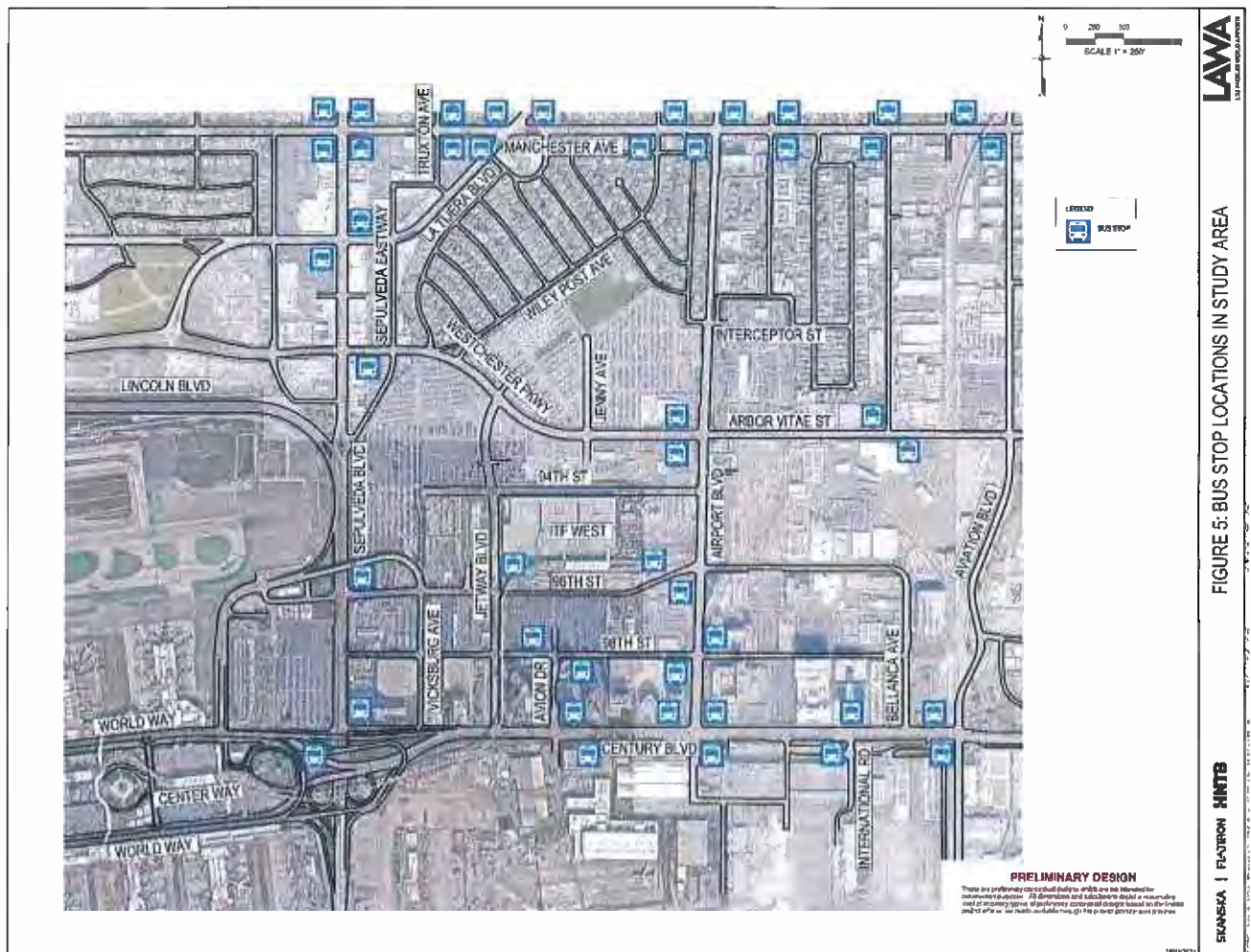


Figure 4: Bus Stops Locations

Alternate Routes and Detours

Detour and Alternative Routes

Detour routes using arterial streets are intended to minimize noise, vibration, and other possible impacts to adjacent businesses, major commercial developments, and residential neighborhoods. Detour routes can also capture regional traffic upstream of residential neighborhoods near construction zones and therefore reduce the potential for cut-through traffic. Detour routes and detour plans may be necessary to route traffic around full facility closures. These locations will be identified as the preliminary phasing plans advance into detailed design. The TMP will be continuously updated with new detour plans as they are identified.

Temporary Turning Restrictions

This strategy involves the restrictions of turning movements for driveways and intersections to increase roadway capacity, reduce potential congestion and delays, and improve safety. These restrictions may be applied during peak periods or all day. A full list of turning restrictions will be provided as the preliminary phasing plans is advance into detailed design.

Signal Timing/Coordination Improvements

Traffic operations will be continuously monitored throughout construction to determine if signal timing adjustments are needed.

Recommended TMP Strategies

The TMP Strategies recommended for the project are summarized in Table 2.

Table 2: Recommended TMP Strategies	
Category	Strategy
Motorist Information	<ul style="list-style-type: none"> • Changeable Message Sign (CMS) • Portable Changeable Message Sign (PCMS) • Temporary Motorist Information Signs • Mobile Applications
Incident Management	<ul style="list-style-type: none"> • Project Emergency Management • Incident Response Notification
Construction Strategies	<ul style="list-style-type: none"> • Construction Staging • Traffic Handling Plans • Full Facility Closures • Night Work • Pedestrian/Bicycle/Transit Access Improvements • Maintain Business Access • Coordination with Adjacent Construction Projects
Demand Management	<ul style="list-style-type: none"> • Transit Service Improvement • Encouragement of Airport Patrons to Use the APM to/from ITF East and West
Alternate Routes or Detours	<ul style="list-style-type: none"> • Detour and Alternative Routes • Temporary Turning Restrictions • Signal Timing/Coordination Improvements

TMP Special Procedures

Design, Plan, Schedule, and Coordinate Construction Activities to Reduce Disruptions to Vehicular and Pedestrian Movements within the CTA

SFJV will work with the LAWA Operations, LAWA Development Group, LADOT and Coordination and Logistics Management (CALM) group to help coordinate ATMP construction activities with the CTA. SFJV will participate in the Roadway Coordination & LIR Meetings, helping ensure the project is strategically approached. Through collaboration with a 3-week look ahead, a weekly traffic schedule will be developed, allowing all parties to plan appropriately, mitigating delays while managing an integrated approach to outreach and communicating to key stakeholders. Because of the impact traffic causes on LAWA and its community, this integrated approach will help ensure the maintenance of airport operations and minimize impacts.

All TMP strategies take into consideration the existing vehicular and pedestrian movements and minimize the disruption of these movements during construction.

Carrying this same approach forward to the design will enable the resolutions of conflicts before they are created. This integrated approach will allow the project team to seek out opportunities where work areas can be combined to minimize impact to the CTA vehicular and pedestrian movements. This combined approach will help address the full operational capacity of the CTA while allowing access for construction sites.

SFJV's collaboration with other partners and organizations will assist in long term planning and coordination with other projects, specifically in the disciplines of design, implementation, coordination, and highlighting high-priority needs. Tangible actions for such are partaken in a variety of continued and pre-set staff and organizational meetings, plan(s) review(s), and communication via but not limited to emails, phone calls, text messages, and face-to-face assembly(s). The variety of methodologies described above will ensure cohesion and coordination to the benefit of all key stakeholders.

Scheduling and Coordination with LAWA

SFJV has currently identified Ross Fryman (MOT Manager) and Fryman Management as the point of contact for all traffic coordination with LAWA; particularly but not limited to planning, designing, directing, monitoring, and refinement. Having one point of contact will eliminate confusion and streamline communication. The construction schedule will be utilized to identify activities 60 days prior to the start of construction. During the MOT Technical Working Group, 30 days prior to the start of construction SFJV will provide and review Traffic Control Plans, sidewalk and pedestrian impacts/detours, utility shutdowns, impacts to parking and garage access, and impacts to other LAWA facilities for all Areas Shutdown Requests and ATMP Impact Request. Any corrections or comments by the approving agency will be incorporated in the Traffic Control Plan for approval. Final Draft Areas Shutdown Requests will be submitted to the Shutdown Control Center for approval. Final draft of ATMP Impact Request will be submitted to LAWA for approval. Approved Areas Shutdown Requests and ATMP Impact Request with applicable Traffic Control Plans will be shared for record.

Fryman Management will schedule site walks with LAWA when impacting or closing a sidewalk, detouring traffic, or impacting parking/parking garage access early in our planning stages to ensure proper signage and detours to vehicular/pedestrian movements are captured in our plans.

Coordination with Local Enforcement and Emergency Agencies

Emergency access will be addressed and coordinated with APD and LAFD during the development of the Areas Shutdown Requests and ATMP Impact Requests.

Identify and Incorporate the Needs of All Airport Users and Stakeholders

The TMP is a living document that will be modified periodically as required to ensure the needs of airport users and key stakeholders are met. SFJV will meet routinely throughout the duration of the project with key stakeholders, elected officials, governmental agencies, business districts, community councils and businesses impact by the construction of the project. Utilizing ATMP Construction Traffic Task Force, meetings will ensure that comments and concerns are incorporated into the planning/design stage of the project. The team will participate and review project schedule at the Quarterly Construction Traffic Meeting or on a more frequently basis as dictated by impacts from the construction of the ATMP.

Maintenance and Replacements of Traffic Control Devices, including Pavement Markings and Traffic Barriers

Safety is the project team's greatest priority. Safety of the SFJV team and the traveling public is at the forefront of every construction activity. Traffic closures will be inspected hourly and documented in the Daily Reports. Traffic control devices will be inspected at the start and end of every shift and any devices or signs that do not meet reflectivity standards will be taken out of service. Traffic barriers and pavement markings will be inspected bi-monthly. SFJV will ensure to refresh any striping/ pavement markings affected by construction activities and temporary barrier systems and impact attenuators will be maintained per plan and replaced if damaged.

Traffic Signal Timings

The traffic closures and detours associated with the construction of the ATMP will change the traffic movement patterns at the study intersections near and adjacent to the construction work zones. This would require retiming of the traffic signals for optimum operations during peak hours. Signal retiming will be dynamically implemented by LADOT through ATSAC (Automated Traffic Surveillance and Control). ATSAC is equipped with traffic sensors which detect the passage of vehicles, vehicle speed, and the level of congestions. SFJV will then work with LADOT and design potential pre-timed packages, helping mitigate traffic impacts created by construction. Affected intersections will be monitored for 72 hours as needed, required, and/or requested after implementation for the purpose of observation and any potential modifications. All observations and modifications will be reported to LADOT within 5 business days for additional analysis and modifications. Overall, implementation of signal retiming will be done through ATSAC.

Coordination with Appropriate Governmental Entities Operating Signal Network

Traffic Signal Operations/Specifications are to be adhered to at all times. SFJV will ensure to plan, design, and implement standards and specifications. All traffic signal and/or related electrical work shall be performed and inspected under the conditions of the most current amended board of public works "Enhanced Electrical Safety Policy" as required in LADOT or other local agencies. Special Provisions and Standard Drawings for the installation and modification of traffic signals (Red Book) will be utilized as needed.

During the planning process, when a traffic signal modification is identified, it will follow the same approval and review process as a WTCP. All of such will be discussed during meetings and discussions to include but are not limited to the following: MOT TWG, Coordination Committee, and any directly affected parties and/or key stakeholders. These meetings and discussions will occur throughout the duration of the project and as requested by affected parties and/or key stakeholders.

Establishment of Haul Routes and the Safe Ingress and Egress of Construction Vehicles in the Work Zone

The SFJV MOT and Safety Team will follow the LA County Public Works Mitigation Monitoring Report Program, which outlines the approved haul routes, and ensure entering or exiting work zone exhibits are included in all Areas Shutdown Requests and ATMP Impact Request for the project. During the planning phases of developing construction staging areas, sight ingress and egress will be an integrated discussion to ensure the defined staging maximizes the needs of the project and safety of all personnel and the traveling public. SFJV will treat haul routes very much like we treat this TMP; such document will be updated and constantly maintained as material sources and needs of the project evolve. Specific haul routes are to be developed as necessary. SFJV will work with the appropriate agencies to ensure we have the necessary approvals throughout the duration of the project.

The following items will be listed and discussed in appropriate Areas Shutdown Requests approved by LAWA and appropriate parties:

- Egress/ingress vehicle plans (pertaining to parking structures, streets, and related areas to inside and outside the CTA)

- Haul Routes
- Active Work Zones
- Flaggers
- Fencing
- Cones
- Personnel

It is important to note that specific “egress/ingress-specific” signs are not explicitly included, but several traffic signs with the similar safety purpose will be provided. All of such are established in traffic control plans and Areas Shutdown Requests that are pre-approved with LAWA and appropriate parties.

Modify Plans as Needed to Adapt to Current Project Circumstances

Fryman Management maintains the most integrated approach to Traffic Management. As the MOT Manager, Ross Fryman’s involvement in daily construction operations creates an immediate flow of communication with the field team. The team is kept up-to-date with real-time needs of the project and is trained to respond and address the ever-changing needs of a project. Having the most trained, proficient personnel who are experienced with communicating with one another, the fluid dialogue and understanding of construction-related backups allows for anticipation of the problems and rapid solutions. Fryman Management’s knowledge and experience deploying traffic control in the LAWA area and in the City of Los Angeles gives the experience to understand and anticipate how the traffic will respond to modified plans. Whether it’s a long-term change or an emergency, Fryman Management has the experience to ensure plans are safe and appropriate for the area and its rapidly changing needs.

The general process and procedures to modify plans as needed to adapt to current Project circumstances include the following:

Reserved. (To be completed in subsequent TMP updates once this topic is coordinated and strategized during project task force meetings)

Communicate TMP Information to Project Public Information Personnel and Notify the Public of Maintenance of Traffic Issues

SFJV will interact and convey information to the LAWA communications team during pre- Areas Shutdown Requests and pre- ATMP Impact Request meeting(s), MOT TWG meeting(s), Coordination Committee meeting(s), and meetings and discussions with directly affected parties and/or key stakeholders—these meetings all pertain to being occurring in both official and unofficial capacities. Most importantly with such, MOT team will interreacts and communicates with the communication team daily to ensure the impacts are consistently updated. SFJV and LAWA work hand in hand to assure questions are answered in depth and in real-time.

SFJV will support LAWA’s Communication Team with distributing construction notices to the public and stakeholders. The Traffic and Construction Teams will work to ensure that the content of public communication is timely and accurate and that all closure information is reflected on the construction notices, including any detour routes. The team will also strategically place PCMS around the network to ensure the traveling public understands the detour routes and can safely navigate around the impacted area.

Contact Methods, Personnel Available, and Response Times for Any Deficiencies or Emergency Conditions Requiring Attention During Off-Work Hours

If a deficiency or traffic incident affecting the work area arises during off-peak working hours, the SFJV team, in conjunction with Fryman Management, will be able to respond rapidly to any incident. Fryman Management has key personnel with equipment on standby at all times. Ross Fryman, being the central point of contact for airport operations, will initiate the telephone tree at such events. Telephone tree is defined as a system in which information is disseminated quickly to appropriate parties via designating specific personnel to contact a number of other personnel.

The primary and main point of contact is Ross Fryman at (949) 480-7525, the primary backup contact is SFJV Construction Manager Rick Finken at 760-644-1889.

Due to the nature of a potentially changing list of personnel, the initial dissemination of information must come from Ross Fryman.

The below list is not a comprehensive list and should only be utilized in the seldom situation that Ross Fryman cannot be reached via the above number. Primary personnel are listed below, and it should be noted that this is an everchanging list that should not be considered to be an exclusive list of personnel.

- Construction Manager – Rick Finken – 760-644-1889
- Night Shift General Supt – TBD – TBD
- Day Shift General Supt – TBD – TBD

5. Key Traffic Control Personnel

SFJV's key design and construction personnel with traffic control responsibilities are shown in Table 15. SFJV has also detailed the duties and qualifications of each of these individuals who will be involved in planning, directing, implementing, and maintaining the TMP. Fryman Management - with an integrated approach to Traffic Management - allows for seamless integration of early planning and design through implementation and refinement in the field. This will be accomplished via coordination amongst appropriate parties to include but are not limited to the individuals on Table 3.

Table 3: Key Traffic Control Personnel and Duties		
Personnel	Duties	Relevant Qualifications
Civil Manager TBD XXXXXX@XXXXXX	Directly responsible for all construction, including direct management of MOT planning and implementation efforts	
MOT Manager Ross Fryman Ross@frymanmgmt.com	Responsible for developing, planning, and implementing the TMP on a daily basis.	
MOT Design Lead TBD XXXXXX@XXXXXX	Manage and oversee Fryman Management Design personnel and all MOT design-related functions; QA/QC of all design projects.	
MOT Construction Lead TBD XXXXXX@XXXXXX	Responsible for interfacing with Construction Area Manager discipline leads to ensure all operations are covered to minimize impacts.	
Traffic Control Personnel Fryman Management XXXXXX@XXXXXX	Implement daily and nightly closures throughout the project.	<ul style="list-style-type: none"> Fryman Management specializes in Traffic Control Fryman Management has been implementing closures throughout Southern California for the past 10 years with zero safety incidents

6. Contingency Plan

Contingency plans are required to handle the rise of unexpected events during construction that could impact both construction and traffic operations. A project specific contingency plan will be developed during the final design phase for each “major” construction activity prior to the start of those activities. Major construction activities include operations requiring closure of a lane, shoulder, connector, or major roadway. Contingency plans should be considered for the following potential scenarios:

- Weather related delays
- Traffic volumes above expected levels
- Delayed construction operations
- Construction equipment breakdown or delay in removing equipment from facility
- Late opening of lane and shoulder closures
- Major incidents near work zones

The following strategies should be considered in the Contingency Plans:

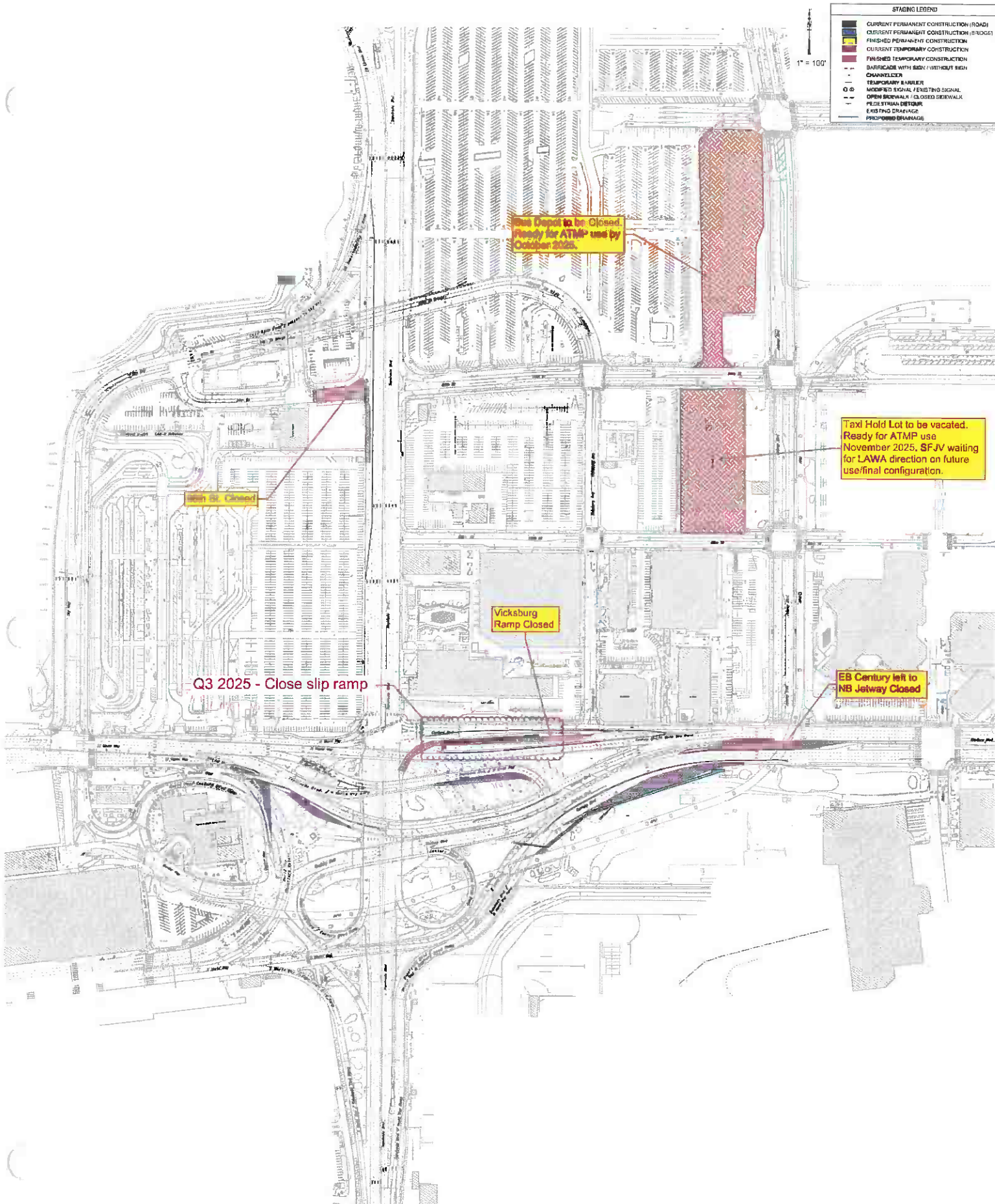
- Notify cities and other local agencies of any incident and late opening or construction delays
- Request assistance from APD
- Activate CMS and PCMS or other public information portals
- Direct traffic to detour or alternative routes
- Develop a work plan to prevent future occurrences of unexpected events
- Enable emergency response access through construction zones and during closures

Appendices

Appendix A – Preliminary Construction Phasing Plans

Appendix B – Lane Closure Summary Table

Appendix A – Preliminary Construction Phasing Plans



ATMP - MOT AC01 STAGE 1 - PHASE A

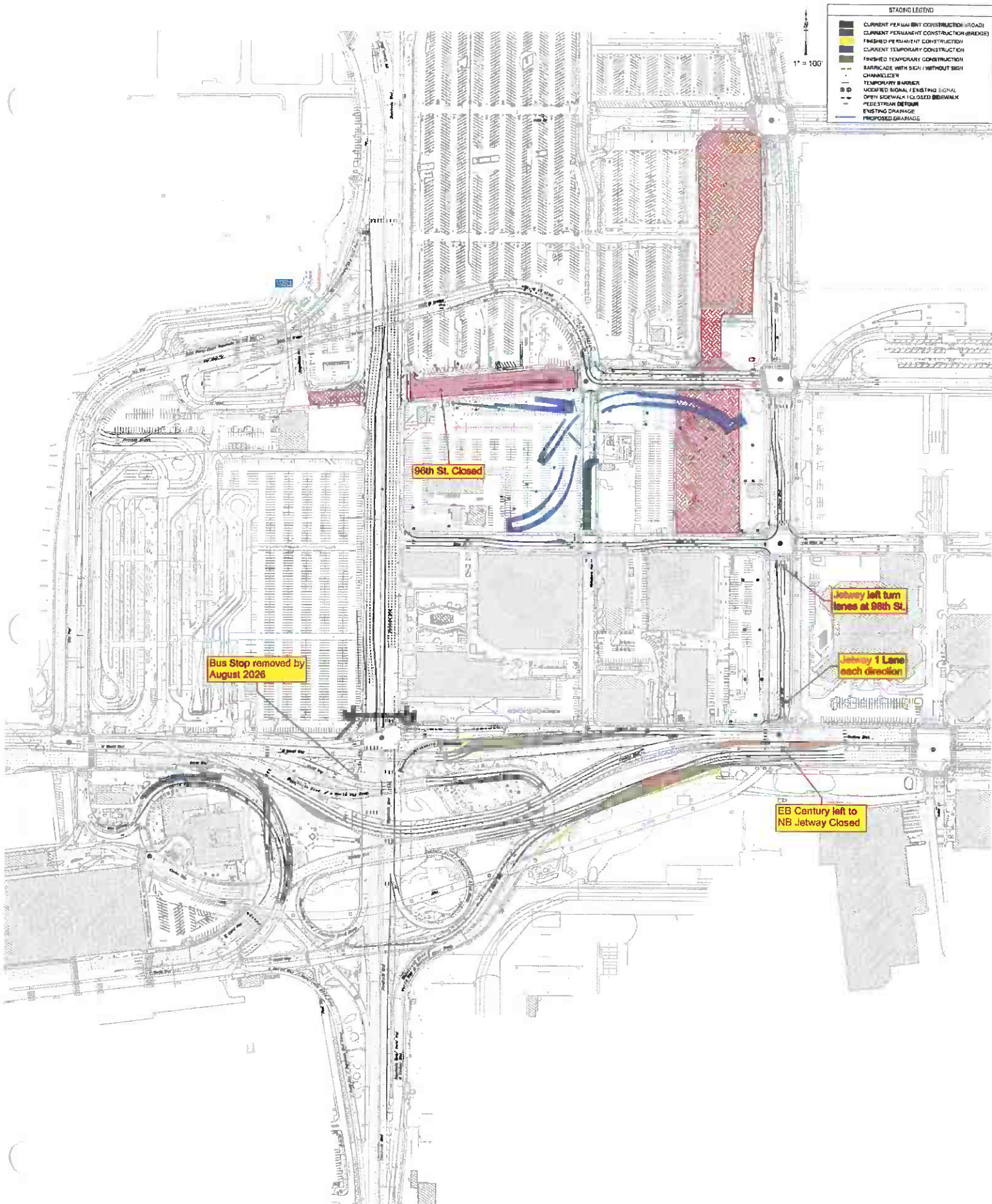
Q3 2025 to Q1 2026 *

* Estimated Construction Time Frames. Subject to Change

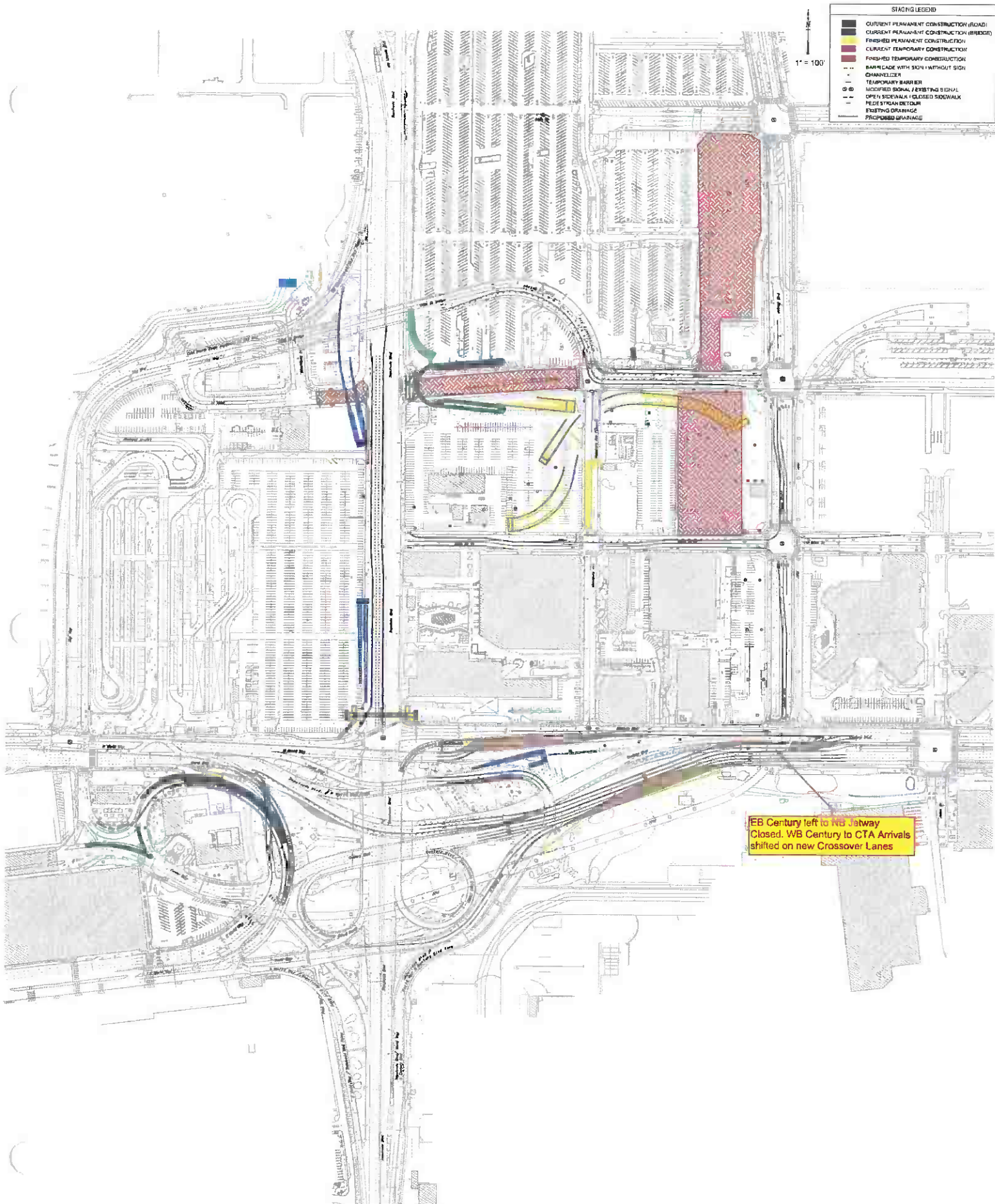


Q1 2026 - Q2 2026

ATMP - MOT AC01 STAGE 1 - PHASE B



Q2 2026 - Q2 2027
 ATMP - MOT STAGE 2 PHASE A



Q2 2026 - Q4 2026
ATMP - MOT STAGE 2 PHASE B



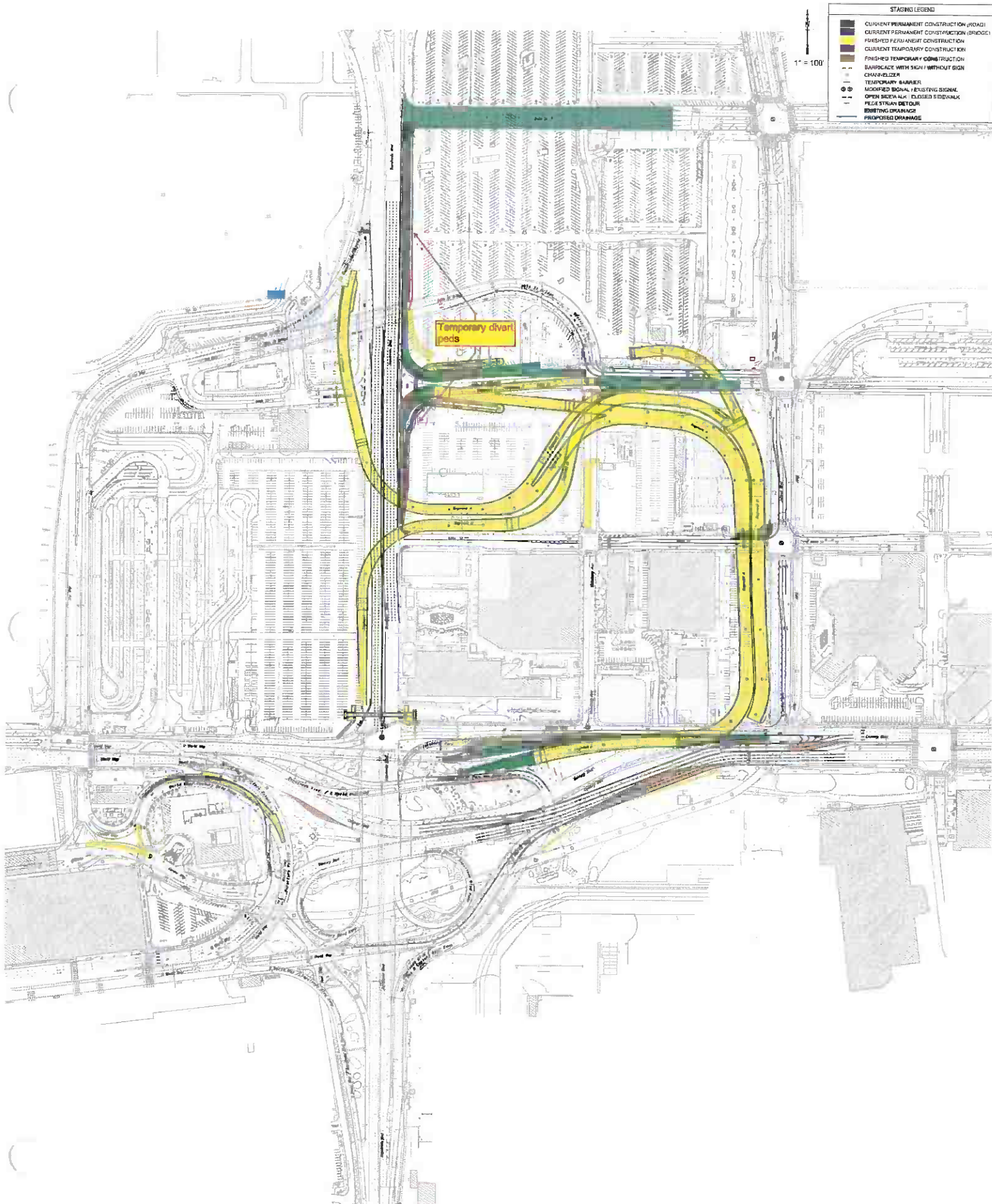
Q3 2026 - Q2 2027

ATMP - MOT STAGE 2 PHASE C



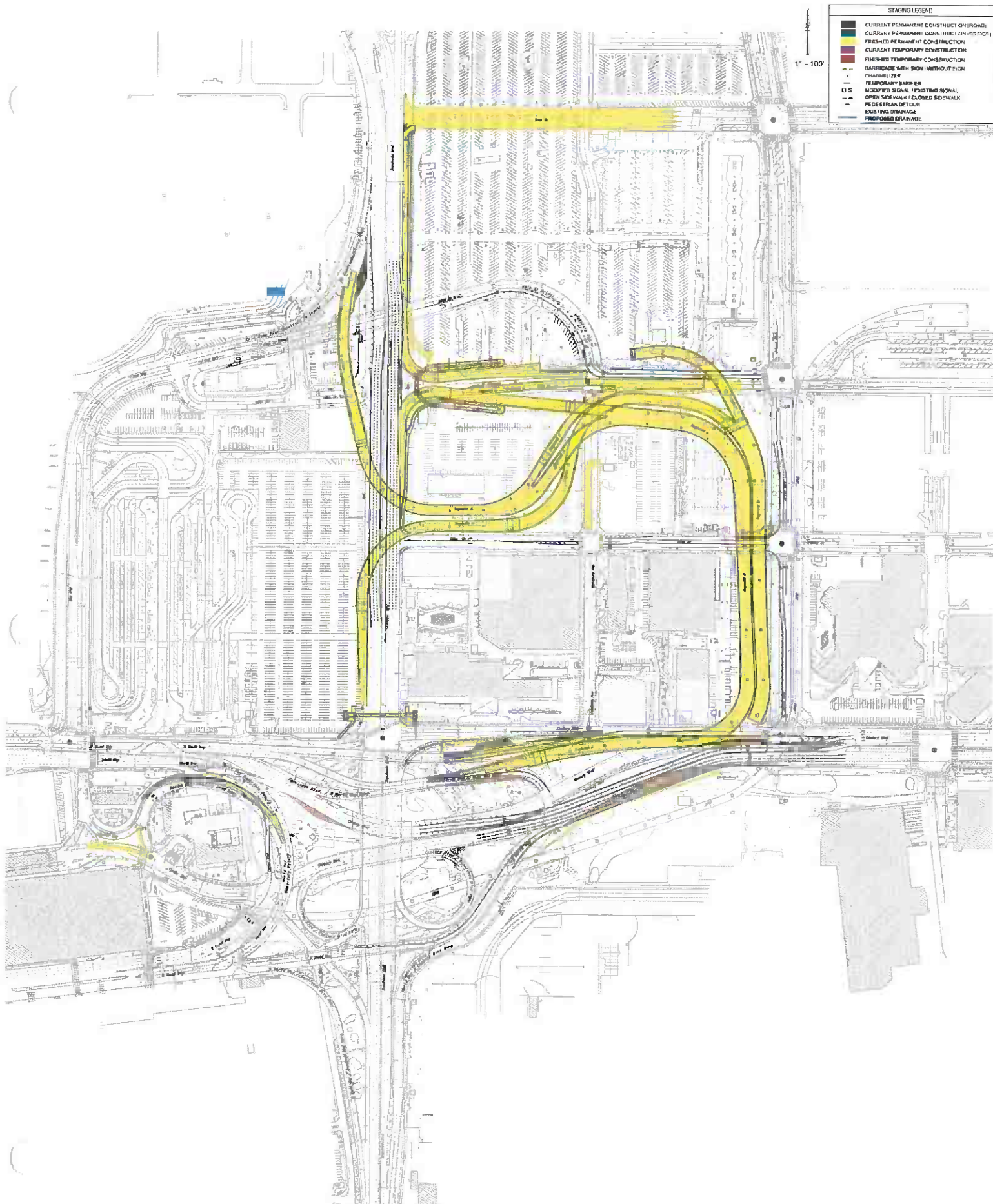
Q2 2027 - Q2 2028

ATMP - MOT STAGE 2 - PHASE D



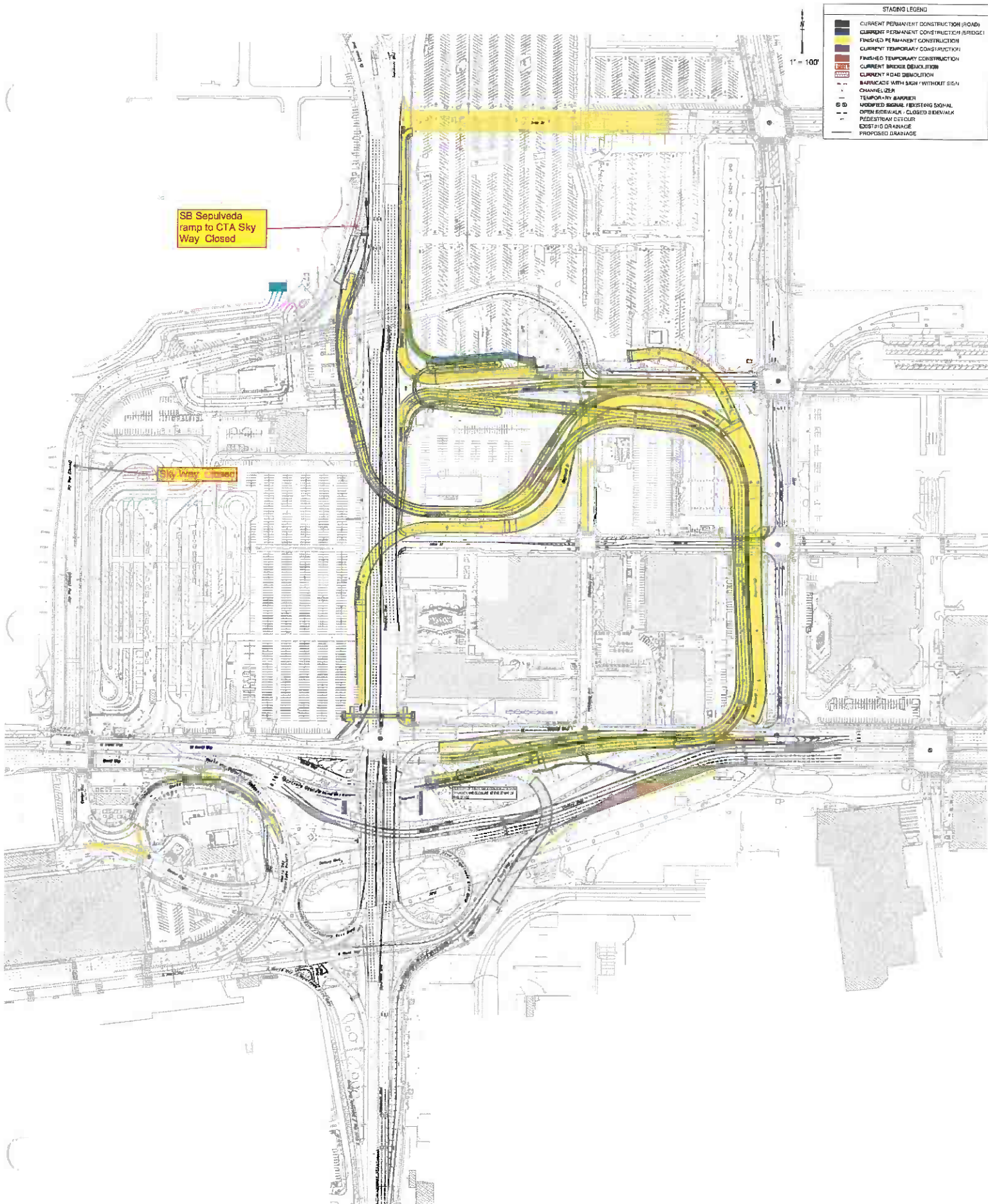
Q4 2026 - Q3 2027

ATMP - MOT STAGE 3 - PHASE A



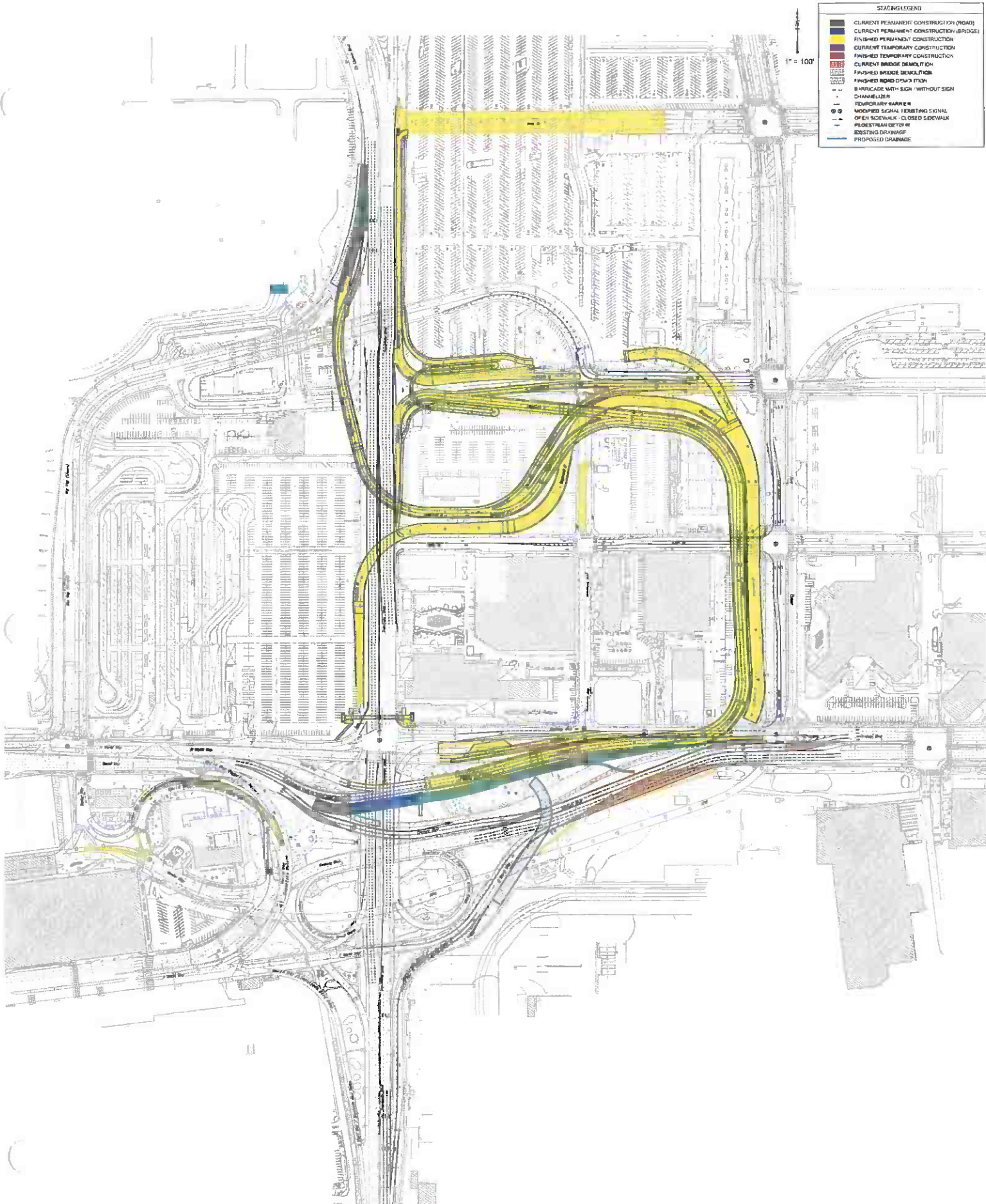
Q3 2027

ATMP - MOT STAGE 3 - PHASE B



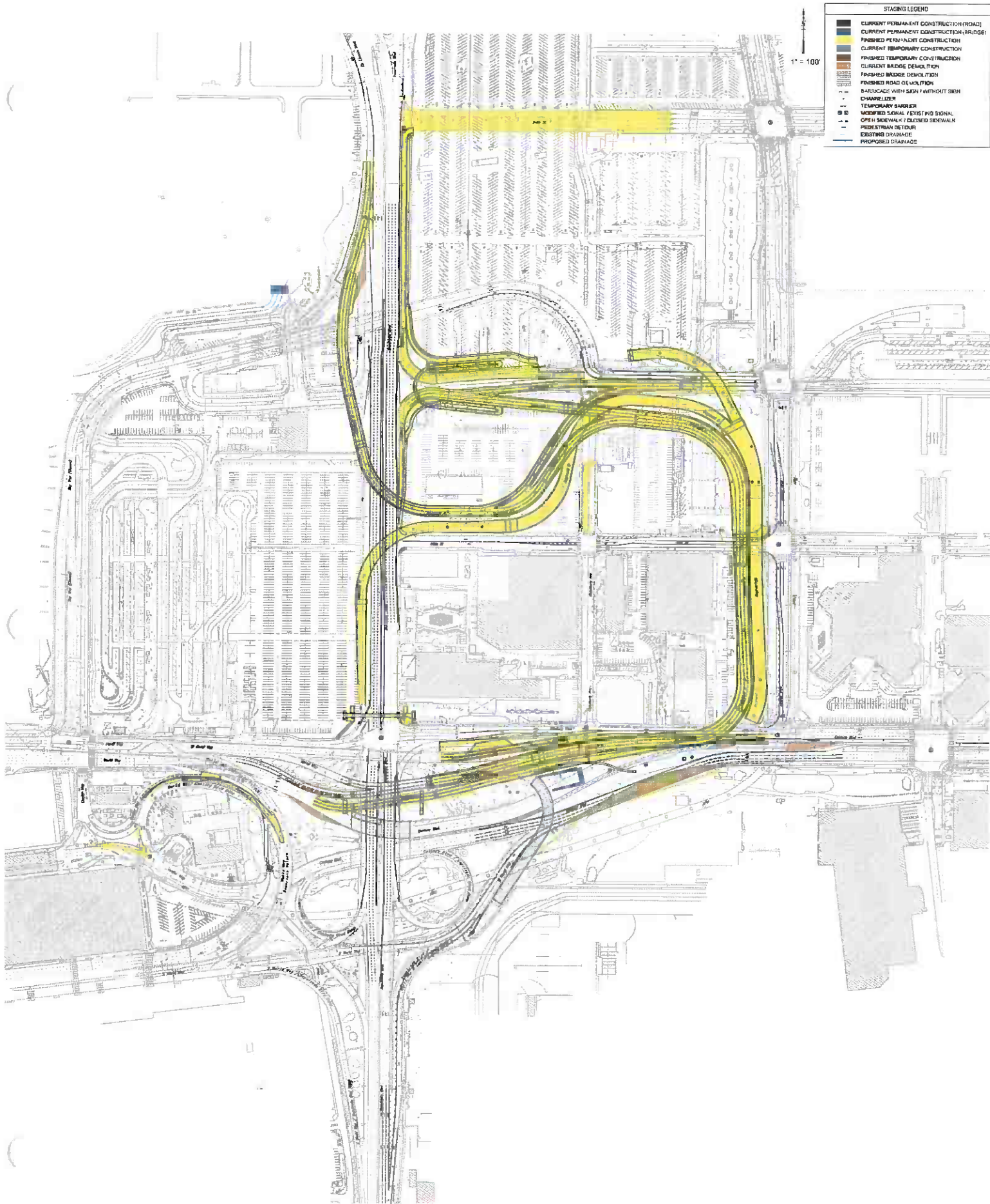
Q3 2027

ATMP - MOT STAGE 4 - PHASE A



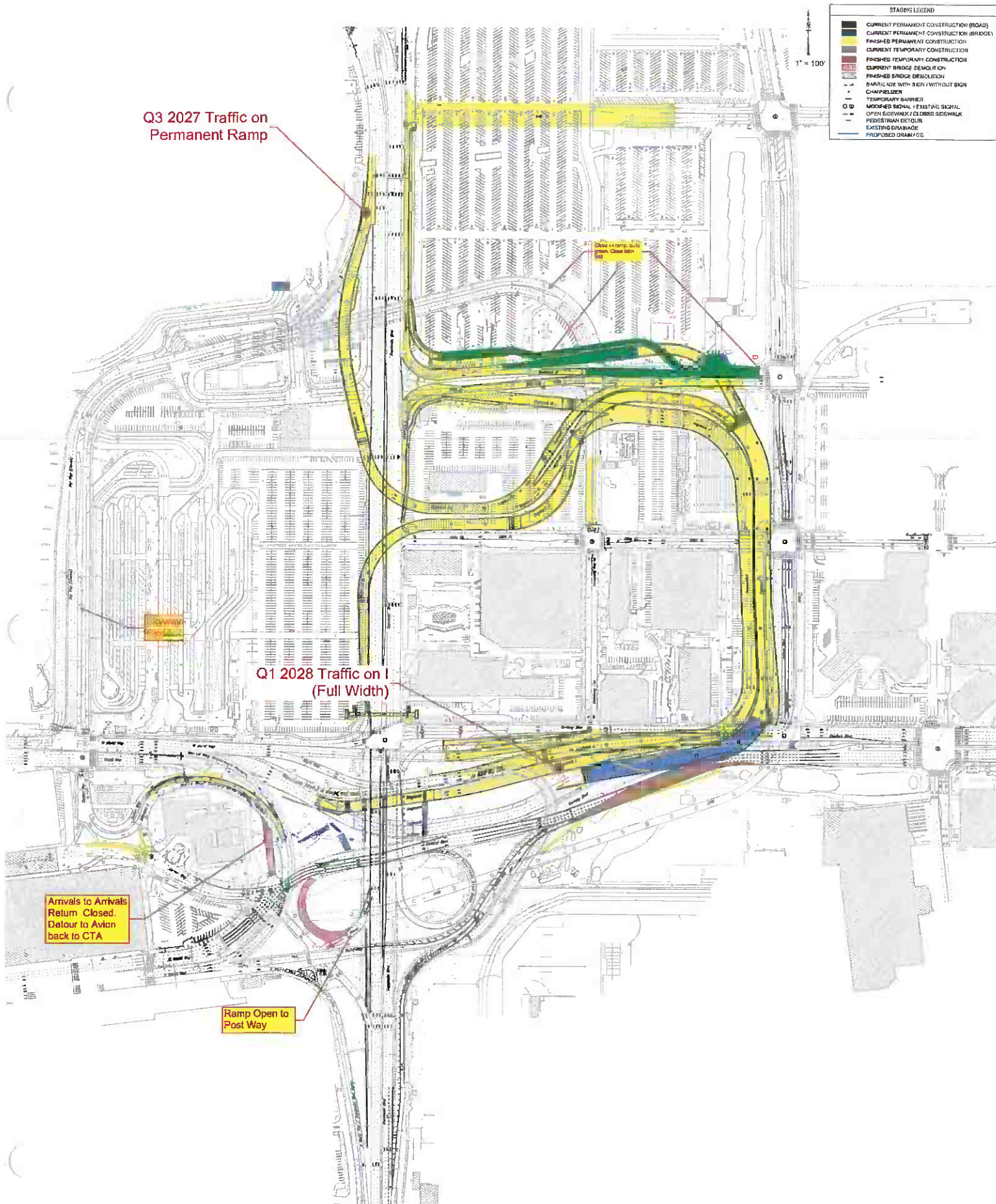
Q3 2027 - Q1 2028

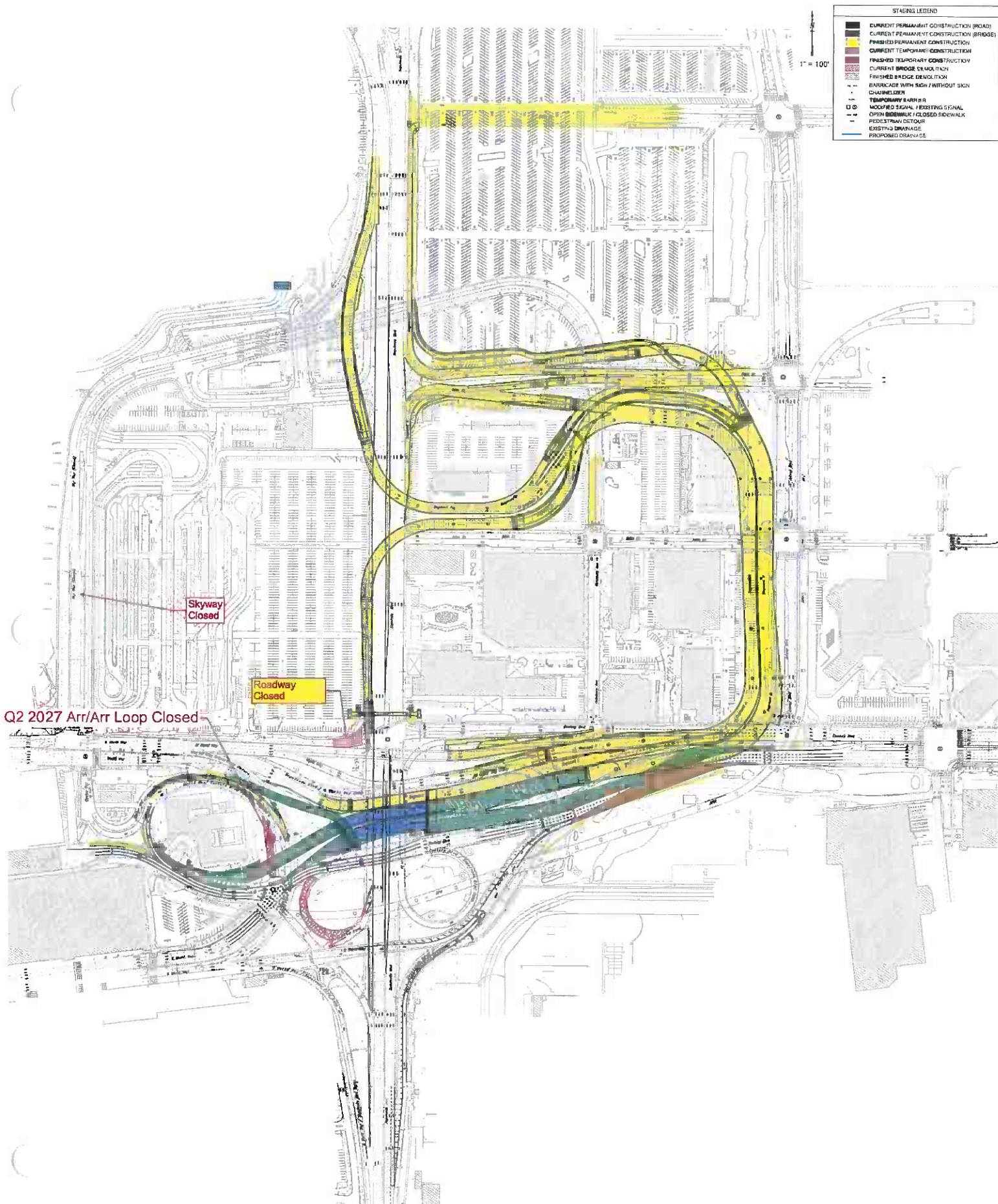
ATMP - MOT STAGE 4 - PHASE B



Q3 2027

ATMP - MOT STAGE 4 - PHASE C

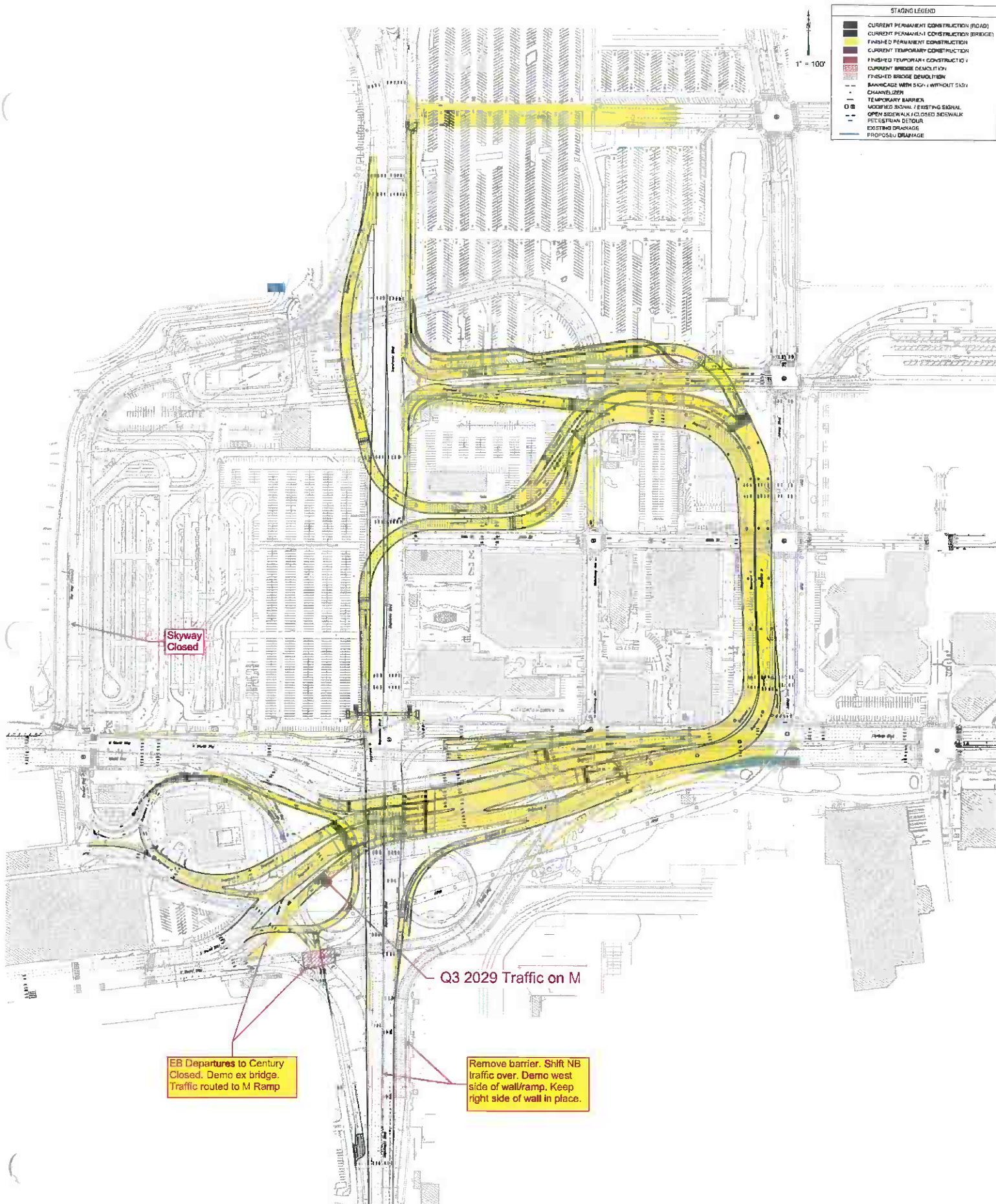




Q1 2028 - Q2 2029
ATMP - MOT STAGE 5 - PHASE B



Q2 2029 - Q3 2029
ATMP - MOT STAGE 6 - PHASE B



Q3 2029
ATMP - MOT STAGE 6 - PHASE C



Q3 2029 - Q4 2029
ATMP - MOT STAGE 6 - PHASE D

Appendix B – Lane Closure Summary Table

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/26/2024
REVISION: 24

#	SEQUENT	SHEET NO.	CONTRACT	LIMITS OF SEQUENCE	DIRECTION	NO. OF LANE	NO. OF LANE	LANE/ACT	DETOUR	CATEGORY	ACTIVITY	NO. OF WORKERS	PROTECTION TYPE	STATUS/REMARKS	START DATE	END DATE	CONTRACT NO.	PROJ. CODE
1		AC01-CP1-102A	Little Century	Vicksburg to Sepulveda	WB	FULL	0	FLANKING	Yes	Unobstructed	New 11' Concrete Across Little Century & Demol Existing Concrete		Stage AC	Dynamic				
2		AC01-CT1-123	Century Blvd	Vicksburg to Sepulveda	WB	1	1	FLANKING	No	Retaining Wall	RW 1.2 Structure & Roadway Construction	100	Stage AC	Static	10/29/25	4/18/26	125	Q4 2025
3	1	AC01-CT1-102	Little Century	Vicksburg to Sepulveda	WB	1	1	FLANKING	No	Unobstructed	RW 1.2 Traffic Operations	20	Stage AC	Dynamic	12/9/25	1/29/26	31	Q4 2025
4	1	AC01-CT1-102	Little Century	Vicksburg to Sepulveda	WB	1	1	FLANKING	No	Retaining Wall	RW 1.2 Concrete Pumping	35	Stage AC	Dynamic	10/29/25	4/2/26	115	Q4 2025
5	1	AC01-CT1-102	Little Century	Vicksburg to Sepulveda	WB	1	1	FLANKING	No	Retaining Wall	1.2 Earth Retaining	47	Stage AC	Dynamic	10/29/25	12/30/25	47	Q4 2025
6		AC01-CP1-119 through AC01-CP1-120 AC01-CP1-121	Century Blvd	Between Vicksburg	EB	1	2	FLANKING	No	Temp Paving	EX CONSTRUCTION	50	Stage AC	Static	1/23/26	1/23/26	50	Q1 2026

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA FLATIRON

DATE: 10/25/2024
REVISION: 01

#	LINE ITEM	PROJECT	LIMITS OF SEGMENT	DI SECTION	W/OF CLEARANCE	SPREAD	EMULSION	W/OF CLEARANCE	SPREAD	ACTIVITY	NO. OF DEVIATIONS	PROJECT FISCAL	STATUS/REMARKS	ESTIMATED COST	ESTIMATED DATE	ESTIMATED QUANTITY	ESTIMATED DATE
21	CD-2024	Century Blvd	Interway to Vicksburg	WB	1	4				WB CROSSOVER East	35	Major AC	Static	4/2/25	1/21/25	35	07/2025
21	ACD1-CP1-023 Through ACD1-CP1-022	Century Blvd	Interway to Vicksburg	WB	1	4				WB CROSSOVER West	35	Major AC	Static	4/2/25	1/21/25	35	03/2025
26	ACD1-CP1-120 Through ACD1-CP1-121	Century Blvd	Interway to Vicksburg	EB	1	2				UNKNOWN			Static				
27	ACD1-CP1-120 Through ACD1-CP1-122	Century Blvd	Interway to Vicksburg	WB	1	4				UNKNOWN			Static				
28	ACD1-CP1-120 Through ACD1-CP1-122	Century Blvd	Interway to Vicksburg	WB	1	4				UNKNOWN			Static				
30	ACD1-CP1-120 Through ACD1-CP1-121	Century Blvd	Interway to Vicksburg	EB	1	2				UNKNOWN			Static				
38	ACD1-CP1-120 Through ACD1-CP1-122	Century Blvd	Interway to Vicksburg	WB	1	4				UNKNOWN			Static				
31	ACD1-CP1-120 Through ACD1-CP1-122	Century Blvd	Interway to Vicksburg	WB	2	1				UNKNOWN			Static				
32	ACD1-CP1-120 Through ACD1-CP1-122	Century Blvd	Interway to Vicksburg	WB	2	1				UNKNOWN			Static				
33	ACD1-CP1-120 Through ACD1-CP1-122	Century Blvd	Interway to Vicksburg	WB	2	1				UNKNOWN			Static				

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE:
01/01/2024

10/28/2024
V2

LINE NO.	PROJECT NO.	LOCATION	DESCRIPTION	VEHICLE	DATE	TIME	STATUS	PHASE	ACTIVITY	IMPACT	STATUS	DATE	TIME	STATUS	DATE	TIME
34	AD01-CT1-142	Century Blvd	Separate sidewalk to way	WB	1	2	UNKNOWN	ROADWAY IMPROVEMENTS	WB CENTURY TO ARRIVALS WIDENING HIGHWAY 101 SEPULVEDA OVERCROSSING	22	Stage AC	Static	2/25/26	2/27/26	22	Q1 2026
35	CT1-219	Century Blvd	Interchange Vialling	WB	7	7	UNKNOWN	Bridge Construction	SEGMENT A CONSTRUCTION OVER CENTURY BLVD		Stage 2	Static			3	Q3 2026
36	CT1-005	Century Blvd	Vickburg to Sepulveda	WB	1	2	UNKNOWN	Retaining Wall	RETAINING WALL A-1, CONSTRUCTION, POUR, PAVING, LANDING		Stage 4	Static	7/23/27	10/27/27	55	
37	CT1-220	Century Blvd	WB CENTURY PASSING JETWAY	WB	1	1	UNKNOWN	Drainage	INSTALL CHILDREN BEATING BASIN DRAINAGE SYSTEM		Stage 4	Static			1	
38	AD01-CT1-153	Centin Way	Crosser Way to North World Way	WB	1	1	UNKNOWN	Roadway Improvements	1530 PAVING FOR CENTERWAY SHIFT	24	Stage AC	Static			8	
39	AD01-CT1-153	World Way	Interchange to World Way at the merge of Centin Way DC and Century DC	WB	1	2	UNKNOWN	Roadway Improvements	TEMP PAVING ON CENTIN WAY DMF	26	Stage AC	Static			6	
40	WB	Sepulveda Blvd	Lincoln to 98th St	SB	1	2	UNKNOWN	Roadway Improvements	REPAIR SEGMENT A AFTER CHANGE DMF AND COMPLETE CURB AND CUTTER IN SEPULVEDA		Stage 5	Dynamic			8	
41	AD01-PJ-01	Subdivided Blvd	Lincoln to 98th St	SB	1	2	UNKNOWN	Roadway Improvements	Sta 17+38 to Sta 34+36 Shoulder, Lighting Foundations, Storm Drains, 17th-24th, 24th & 26th, 26th & 28th, 28th & 30th, 30th & 32nd, 32nd & 34th, 34th & 36th, 36th & 38th, 38th & 40th, 40th & 42nd, 42nd & 44th, 44th & 46th, 46th & 48th, 48th & 50th, 50th & 52nd, 52nd & 54th, 54th & 56th, 56th & 58th, 58th & 60th, 60th & 62nd, 62nd & 64th, 64th & 66th, 66th & 68th, 68th & 70th, 70th & 72nd, 72nd & 74th, 74th & 76th, 76th & 78th, 78th & 80th, 80th & 82nd, 82nd & 84th, 84th & 86th, 86th & 88th, 88th & 90th, 90th & 92nd, 92nd & 94th, 94th & 96th, 96th & 98th, 98th & 100th, 100th & 102nd, 102nd & 104th, 104th & 106th, 106th & 108th, 108th & 110th, 110th & 112nd, 112nd & 114th, 114th & 116th, 116th & 118th, 118th & 120th, 120th & 122nd, 122nd & 124th, 124th & 126th, 126th & 128th, 128th & 130th, 130th & 132nd, 132nd & 134th, 134th & 136th, 136th & 138th, 138th & 140th, 140th & 142nd, 142nd & 144th, 144th & 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ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA FLATIRON

DATE: 19/08/2024
REVISION: 04

ID	SECTION	ACTIVITY	STREET	LIMITS OF SEGMENT	DIRECTION	LANE CLOSURE	NO. OF LANE CLOSURES	ACTIVITY	IMPACT	ACTIVITY	NO. OF OCCURRENCES	PROJECT STAGE	IMPACT	START DATE	END DATE	IMPACT	IMPACT
42		AC01 - Pg 64	Sepulveda Blvd	Lincoln to 58th St	SB	2	2	UNKNOWN	Yes	Roadway Improvements	25	Stage 3	Dynamic	8/18/27	10/25/27	52	Q3 2027
43		AC01 - Pg 68	Sepulveda Blvd	58th St to 60th St	NS	2	3	UNKNOWN	Yes	Roadway Improvements	12	Stage 3	Dynamic	12/2/27	1/25/27	46	Q1 2027
44		AC01 - Pg 68	Sepulveda Blvd	60th St to 62nd St	NS	1	4	UNKNOWN	Yes	Roadway Improvements		Stage 3	Static	3/25/27	6/25/27	46	Q1 2028
45		CT1-207	Sepulveda Blvd	58th St to 60th St	HT	1	4	UNKNOWN	Yes	HOT							
47	C	CP3-006	Sepulveda Blvd	20th St to Lincoln	HT	2	2	UNKNOWN	N/A	Demo						0	
48	A	CT1-207	Sepulveda Blvd	60th St to 62nd St	NS	3	1	UNKNOWN	No	Columns		Stage 2	Static	5/6/26	3/15/27	238	
49	D1	CT1-207	Sepulveda Blvd	Demerity to 58th St	NS	1	3	UNKNOWN	No	Columns		Stage 2	Static	5/6/26	3/15/27	238	
50		AC01 - Pg 68	Sepulveda Blvd	Lincoln to 58th St	SB	2	2	UNKNOWN	Yes	Roadway Improvements	35	Stage 3	Dynamic	8/18/27	10/25/27	52	Q3 2027
51	A	CT1-207	Sepulveda Blvd	Lincoln to Century and	SB	1	3	UNKNOWN	Yes	Columns		Stage 2	Static	5/6/26	3/15/27	238	

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/26/2024
REVISION: 04

RAPID CONCEPT																			
#	WEEK	PROJECT	WEEK	DESCRIPTION	DIRECTION	NO. OF DOWNSHIFTS	NO. OF UPDRAFTS	STATUS	STATUS	ACTIVITY	NO. OF OCCUPANCIES	PROJECT STATUS	STATUS/DOWNSHIFT	START DATE	END DATE	DIRECTION	WEEK END		
52		AC01-CU1-228	Sequoia Blvd	Sequoia to World Way back Ramp	WB	1	1		UNKNOWN	No	Demol	Removal Pylon A	3	Stage AC	Dynamic	3/23/26	4/2/26	9	Q4 2025
53		AC01-CU1-210	Sequoia Blvd	Sequoia to World Way back Ramp	WB	1	1		UNKNOWN	No	Demol	Removal Pylon B	3	Stage AC	Dynamic	1/29/25	1/16/26	9	Q4 2025
54		AC01-CU1-219	Century Blvd	East of Sequoia Blvd	WB	2			UNKNOWN	No	Demol	Removal Pylon C	6	Stage AC	Dynamic	12/28/25	1/27/26	9	Q4 2025
55		AC01-CU1-230	Century Blvd	EB Century east of CTA to WB Sequoia Temp Lane	WB	1	0.1		UNKNOWN	No	Demol	Removal Pylon E, F, G	27	Stage AC	Dynamic	8/16/25	11/11/25	27	Q4 2025
56		AC01-CU1-218	Century Blvd	WB off back ramp, west of Sequoia Blvd.	WB	1	1		UNKNOWN	No	Demol	Removal Pylon H	9	Stage AC	Dynamic	2/25/26	3/9/26	9	Q4 2025
57		AC01-CU1-215	Century Blvd	East of Sequoia Blvd.	WB	1	2		UNKNOWN	No	Demol	Removal Pylon D	9	Stage AC	Dynamic	10/1/25	10/1/25	9	Q4 2025

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/28/2024
REVISION: 04

LOCATION							STATUS							CONSTRUCTION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
ID	SEGMENT	SHEET NO.	BRIDGE	UPPER OF ALIGNMENT	CONSTRUCTION	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	WALKWAY	W

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/20/2024
REVISION: 06

LOCATION				RAPIDS ETC.				PROJECT INFORMATION				CONSTRUCTION INFORMATION				STATUS			
P	MOVEMENT	SHEET NO.	STREET	LINKS OF SEGMENT	NO. OF CLOSED LANES	NO. OF OPEN LANES	SNAPSHOT	DETOUR	Category	ACTIVITY	PROJECT ID	CONSTRUCTION ID	Project Segment	Start Date	End Date	Notes			
69	K2	CT1-811	Sequencia Blvd	TUNNEL TO CENTURY	HS	1	3	FUNCTIONING	No	Bridge Construction	Bridge C2 Construction		Stage 3	Static	1/29/26	11/13/26	713		
70	I	CT1-811	Sequencia Blvd	CENTURY TO TUNNEL	SB	1	1	FUNCTIONING	No	Bridge Construction	Bridge Construction		Stage 4	Static	1/29/27	5/6/27	75		
71	K2	CT1-811	Sequencia Blvd	CENTURY TO TUNNEL	SB	1	1	FUNCTIONING	No	Bridge Construction	Bridge C2 Construction		Stage 5	Static	1/29/26	11/13/26	713		
72	P	CT1-811	Sequencia Blvd	CENTURY TO TUNNEL	SB	1	1	FUNCTIONING	No	Bridge Construction	Bridge Construction		Stage 5	Static	2/10/26	10/17/26	92		
73	A		Sequencia Blvd	Linkway to 96th St	SB	2	2	FUNCTIONING	No	Roadway Improvements	Segment A - Temp for 1st Drive Curb & Parallel Sidewalk & Base - Phase Permit	32	Stage 4	Dynamic	1/23/27	5/17/27	73		
74	D3	CP1-813	Sequencia Blvd	Anchor of Century	SB	2	2	FUNCTIONING	No	Roadway Improvements	Segment C pavement in 1st	3	Stage 5	Static			3		
75	D1	CU1-219	Sequencia Blvd	CENTURY & SEQUENCIA	SD	1	1	FUNCTIONING	N/A	Drainage	Storm Drain 10" RCP, C&G		Stage 5	Dynamic			8		
76	I	CT1-811	Sequencia Blvd	South of Century	SB	2	3	FUNCTIONING	N/A	Alignments	Alignment 4 & 5 and 2		Stage 4	Static	6/23/26	10/6/27	141		
77		CP1-15	Sequencia Blvd	South of Century	SB	0	3	FUNCTIONING	No	High	Lighting foundations, Storm Drains, Final grants, CHSS, Curb & Gutter, Adj. Base, RCP		Stage 6	Static	4/9/29	8/11/29	48		
78	NE	CT1-429	Century Blvd	HS REPLACES TO SB CENTURY RAMP	HS	FULL	0	FUNCTIONING	Yes	Drains	Heavy Ramp Drains		Stage 4	Static	10/9/27	1/22/27	10		
79			Century Blvd	Linkway to Sequencia	EB	FULL	0	FUNCTIONING	Yes	Drains	Heavy Ramp Drains	5	Stage 4	Dynamic	7/9/27	1/22/27	10		
80			Century Blvd	Linkway to Sequencia	WB	FULL	0	FUNCTIONING	Yes	Drains	Heavy Ramp Drains	5	Stage 4	Dynamic	10/9/27	1/22/27	10		

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/28/2024
REVISION: 24

#	DESCRIPTION	APPROACH	STREET	DIRECTION / SEGMENT	DIRECTION	STATUS	STATUS	SNAPSHOT	DETOUR	Category	ACTIVITY	SECTION	STAGE	TRAFFIC CONTROL	START DATE	END DATE	DURATION	Notes
81	NE	CT1-415	Sequoia Blvd	NE ST PULVERDA TO EB CENTURY RAMP	NE	FULL	1	#UNKNOWN#	N/A	MDT	NE CONSTRUCTION FULL CLOSURE ONCE NE DETOUR RAMP IS READY (PENDING COURSE OF ACTION)		Stage 4	Static	10/10/25	6/29/26	180	
82			Sequoia Blvd	TUNNEL TO CENTURY	NE	PULL	0	#UNKNOWN#	Yes	MDT	COMPLETE CLOSURE OF EXISTING NB TO EB CENTURY RAMP WITH DETOUR IN PLACE		Stage 5	Static				
83			Sequoia Blvd	CENTURY & SEQUOIA	WB	1	3	#UNKNOWN#	No	Roadway Improvements	NEW CURB CONSTRUCTION		Stage 5	Dynamic				
84			Sequoia Blvd	TUNNEL TO CENTURY	WB	1	0	#UNKNOWN#	No	Roadway Improvements	SEGMENT NE ACP IS IN		Stage 6	Static			0	
85	NE	CT1-413	Sequoia Blvd	NE ST PULVERDA TO EB CENTURY RAMP	NE	FULL		#UNKNOWN#	Yes	Temporary Improvements	CONSTRUCTION OF NE FULL CLOSURE FOR INSTALL OF SHORING (PENDING COURSE OF ACTION)		Stage 6	Static	10/10/25	6/29/26	180	
86			Sequoia Blvd	TRAIL TO LINCOLN	NE	1	4	#UNKNOWN#	N/A	Roadway Improvements	CURB & GUTTER		Stage 4	Static	7/23/25	10/13/27	56	
87	S	DUR2-SB3-004	Sequoia Blvd	Century Blvd to Lincoln	WB	FULL	0	#UNKNOWN#	Yes	Falsework	False Erect Falsework Beams East Side of Sequoia	1	Stage 1	Dynamic	6/9/25	10/15/25	0	03/2026
88	S	DUR2-SB3-004	Sequoia Blvd	Lincoln to Century Blvd	SB	PULL	0	#UNKNOWN#	Yes	Falsework	False Erect Falsework Beams West Side of Sequoia	1	Stage 2	Dynamic	6/25/25	10/25/25	0	03/2026
89	S	DUR2-SB3-004	Sequoia Blvd	Century Blvd to Lincoln	WB	PULL	0	#UNKNOWN#	Yes	Falsework	Erect Shoring East Side of Sequoia	2	Stage 2	Dynamic	10/10/25	01/10/26	0	04/2026
89	S	DUR2-SB3-004	Sequoia Blvd	Lincoln to Century Blvd	SB	FULL	0	#UNKNOWN#	Yes	Falsework	Erect Shoring West Side of Sequoia	3	Stage 2	Dynamic	10/20/25	10/21/25	0	03/2026

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/26/2024
REVISION: 04

Project Overview																			Detailed Schedule & Status									
#	Sequence	Project ID	Street	Intersection	Direction	No. of Lanes	No. of Open Lanes	Status	Notes	Category	Activity	No. of Crews	Equipment	Start Date	End Date	Duration	Status	Remarks										
91	A	DU02-S01-004	Sepulveda Blvd	Century Blvd to Lincoln	SB	FULL	9	UNKNOWN	Yes	Falsework	Falsework Grade Adjustment East Side of Sepulveda (4th, 50% EFF)	4	Stage 2	Dynamic	6/19/26	6/22/26	4	Q3 2026										
92	A	DU02-S01-004	Sepulveda Blvd	Lincoln to Century Blvd	SB	FULL	9	UNKNOWN	Yes	Falsework	Falsework Grade Adjustment West Side of Sepulveda (4th, 50% EFF)	4	Stage 2	Dynamic	5/27/26	1/1/26	4	Q3 2026										
93	A	DU02-S01-004	Sepulveda Blvd	Century Blvd to Lincoln	NB	FULL	8	UNKNOWN	Yes	Bridge Construction	Form Saddle Over NB Sepulveda	11	Stage 2	Dynamic	5/18/26	10/29/26	6	Q3 2026										
94	A	DU02-S01-004	Sepulveda Blvd	Lincoln to Century Blvd	SB	FULL	8	UNKNOWN	Yes	Bridge Construction	Form Saddle Over SB Sepulveda	11	Stage 2	Dynamic	5/28/26	5/2/26	9	Q3 2026										
95	A	DU02-S01-004	Sepulveda Blvd	Century Blvd to Lincoln	NB	FULL	0	UNKNOWN	Yes	Falsework	Remove Falsework Over NB Sepulveda (4th, 20% EFF)	4	Stage 2	Dynamic	1/27/27	1/3/27	2	Q1 2027										
96	A	DU02-S01-004	Sepulveda Blvd	Lincoln to Century Blvd	SB	FULL	0	UNKNOWN	Yes	Falsework	Remove Falsework Over SB Sepulveda (4th, 50% EFF)	4	Stage 2	Dynamic	1/29/27	2/1/27	2	Q1 2027										
97	A	DU02-S01-004	Sepulveda Blvd	Lincoln to Century Blvd	NB	FULL	8	UNKNOWN	Yes	Electrical	Install Soft Lighting	3	Stage 2	Dynamic	2/2/27	2/6/27	9	Q1 2027										
98	A	DU02-S01-004	Sepulveda Blvd	Lincoln to Century Blvd	SB	FULL	8	UNKNOWN	Yes	Electrical	Install Soft Lighting	3	Stage 2	Dynamic	2/2/27	2/6/27	8	Q1 2027										
99	A	DU02-S01-004	Sepulveda Blvd	Lincoln to Century Blvd	SB	3	2	UNKNOWN	No	Columns	Monitor Spots Blvd 2	2	Stage 2	Dynamic	7/1/26	7/7/26	5	Q3 2026										
100	A	DU02-S01-004	Sepulveda Blvd	Lincoln to Century Blvd	SB	2	2	UNKNOWN	No	Columns	Monitor Spots Blvd 3	2	Stage 2	Dynamic	5/19/26	5/26/26	4	Q3 2026										
101	A	DU02-S01-004	Sepulveda Blvd	Lincoln to Century Blvd	SB	2	2	UNKNOWN	No	Columns	Pour concrete to cut off Blvd 2	1	Stage 2	Dynamic	7/7/26	7/7/26	1	Q3 2026										
102	A	DU02-S01-004	Sepulveda Blvd	Lincoln to Century Blvd	SB	2	2	UNKNOWN	No	Columns	Pour concrete to cut off Blvd 3	1	Stage 2	Dynamic	5/20/26	5/25/26	1	Q3 2026										

ATMP Landside Improvements Project

TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE:	15/25/2024
REVISION:	V4

ID	Segment	Phase	Status	Category	Sub-Category	Priority	Owner	Start Date	End Date	Duration	Progress %	Notes
103	A											
104	A		Century Blvd	Jewelry to Victoria St	SB	1	L					
106	A		Sepulveda Blvd	Lincoln to Century Blvd	SB	2	J					
106	A		Sepulveda Blvd	Lincoln to Century Blvd	SB	2	J					
107	A		Century Blvd	Jewelry to Victoria St	SB	1	L					
108	A		Sepulveda Blvd	Lincoln to Century Blvd	SB	2	J					
109	A		Sepulveda Blvd	Lincoln to Century Blvd	SB	2	J					
110	A		Century Blvd	Jewelry to Victoria St	SB	1	L					
111	A		Sepulveda Blvd	Lincoln to Century Blvd	SB	2	J					
112	A		Sepulveda Blvd	Lincoln to Century Blvd	SB	2	J					
113	A		Century Blvd	Jewelry to Victoria St	SB	1	L					

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/20/2024
REVISION: 14

TRAFFICFIELD																	
#	S&B #	S&B NAME	STREET	PROJECT	TRAFFIC	STATUS	PHASE	DESCRIPTION	DATE	ACTIVITY	NO. OF OCCURRENCES	PROJECT STAGE	DURATION	START DATE	END DATE	STATUS	MARK
114	A		Sapwood Blvd	1900 to Century Blvd	NR / SB	FULL	B	UNKNOWN	No	Bridge Construction	Four Lanes & Storm (4x, 50% EFF)	2	Stage 2	Dynamic	11/2/24	11/4/26	1
115	A	DUK2-SB-204	38th St	38th & Jersey	EB / WB	FULL	B	UNKNOWN	Yes	Bridge Construction	Four Lanes & Storm	1	Stage 2	Dynamic	10/28/24	10/29/26	2
116	A		Century Blvd	Interway to Vickburg	WB	FULL	D	UNKNOWN	Yes	Bridge Construction	Four Lanes & Storm Frame 7	1	Stage 2	Dynamic	10/21/24	10/22/26	3
117	A		Sapwood Blvd	Lincoln to Century Blvd	NR	FULL	B	UNKNOWN	No	Bridge Construction	FPS Barrier Over SR Substructure (4x, 50% EFF)	2	Stage 2	Dynamic			8
118	A		Sapwood Blvd	Lincoln to Century Blvd	SB	FULL	D	UNKNOWN	No	Bridge Construction	FPS Barrier Over SR Substructure (4x, 50% EFF)	2	Stage 2	Dynamic			0
119	A		Sapwood Blvd	Lincoln to Century Blvd	UR / SB	FULL	D	UNKNOWN	No	Bridge Construction	Four Deck	1	Stage 2	Dynamic	1/4/27	1/4/27	3
120	A	DUK2-SB-104	38th St	38th & Jersey	EB / WB	FULL	D	UNKNOWN	Yes	Electrical	Install Solar Lighting		Stage 2	Dynamic	5/12/27	5/12/27	5
121	A	DUK2-SB-094	38th St	38th & Jersey	EB / WB	FULL	D	UNKNOWN	Yes	Bridge Construction	Four Deck	1	Stage 2	Dynamic	12/15/24	12/16/26	1
122	A		Century Blvd	Interway to Vickburg	WB	FULL	D	UNKNOWN	Yes	Bridge Construction	Four Deck Frame 7	1	Stage 1	Dynamic	1/5/27	1/5/27	1
123	A		Century Blvd	Interway to Vickburg	WB	FULL	D	UNKNOWN	Yes	Bridge Construction	Four Lanes 7	2	Stage 2	Dynamic			
124	A		Century Blvd	Interway to Vickburg	WB	FULL	D	UNKNOWN	Yes	Bridge Construction	5 x 5 Barrier Frame 7 (4x, 50% EFF)	8	Stage 1	Dynamic			0
125	A	DUK4-SB-081	Century Blvd	Interway to Vickburg	WB	FULL	B	UNKNOWN	Yes	Footwalk	Four Deck Footwalk Barrier Frame 7 (4x, 50% EFF)	2	Stage 2	Dynamic	7/7/28	7/13/28	5

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/20/2024
VERSION: 44

ID	SEQUENCE	PROJECT NO.	STREET	POINTS OF INTEREST	DIRECTION	STATUS	OWNERSHIP	SHARPSIDE	STATUS	Category	ACTIVITY	SEQUENCE	PROPOSED	PROPOSED DYNAMIC	START DATE	END DATE	START QTR	END QTR
126	A	DUB2-S01-010	Century Blvd	Journey to Victory	WB	FULL	3	UNKNOWN	Yes	Pavement	Correct Shoulder Lane 7 (Slope 5.0% E/F)	3	Stage 2	Dynamic	7/15/26	7/15/26	3	Q3 2026
127	A	DUB2-S01-010	Century Blvd	Journey to Victory	WB	FULL	3	UNKNOWN	Yes	Pavement	Subsidence Adjustment Lane 7 (Slope 5.0% E/F)	4	Stage 2	Dynamic			3	Q3 2026
128	A	DUB2-S01-010	Century Blvd	Journey to Victory	WB	FULL	3	UNKNOWN	Yes	Bridge Construction	Form Slab Lane 7 (Slope 5.0% E/F)	20	Stage 2	Dynamic	7/14/26	8/15/26	30	Q3 2026
129	A	DUB2-S01-010	Century Blvd	Journey to Victory	WB	FULL	3	UNKNOWN	Yes	Pavement	Remove Pavement Lane 7 (Slope 5.0% E/F)	5	Stage 2	Dynamic	3/22/27	3/22/27	5	Q1 2027
130	A	DUB2-S01-010	Century Blvd	Journey to Victory	WB	FULL	3	UNKNOWN	Yes	Electrical	Install Solar Lighting	5	Stage 2	Dynamic	8/19/27	8/25/27	5	Q2 2027
131	D1	DUB2-C01-008	Sequoyia Blvd	Century Blvd to Lincoln	SB	FULL	0	UNKNOWN	Yes	Pavement	Full Erect Pavement Slab East Side of Sequoyia (Slope 0.5% E/F)	1	Stage 2	Dynamic	8/13/26	10/15/26	5	Q3 2026
132	D1	DUB2-C01-008	Sequoyia Blvd	Century Blvd to Lincoln	SB	FULL	0	UNKNOWN	Yes	Pavement	Full Erect Pavement Slab East Side of Sequoyia (Slope 0.5% E/F)	2	Stage 2	Dynamic	8/13/26	10/15/26	5	Q3 2026
133	D1	DUB2-C01-008	Sequoyia Blvd	Century Blvd to Lincoln	SB	FULL	0	UNKNOWN	Yes	Pavement	Full Erect Pavement Slab West Side of Sequoyia (Slope 0.5% E/F)	3	Stage 2	Dynamic	8/25/26	8/25/26	5	Q3 2026
134	D1	DUB2-C01-008	Sequoyia Blvd	Century Blvd to Lincoln	SB	FULL	0	UNKNOWN	Yes	Pavement	Full Erect Pavement Slab East Side of Sequoyia (Slope 0.5% E/F)	4	Stage 2	Dynamic	8/25/26	8/25/26	5	Q3 2026
135	D1	DUB2-C01-008	Sequoyia Blvd	Century Blvd to Lincoln	SB	FULL	0	UNKNOWN	Yes	Pavement	Subsidence Adjustment Over SB Sequoyia (Slope 0.5% E/F)	3	Stage 2	Dynamic	8/25/26	10/25/26	3	Q3 2026
136	D1	DUB2-C01-008	Sequoyia Blvd	Century Blvd to Lincoln	SB	FULL	0	UNKNOWN	Yes	Pavement	Subsidence Adjustment Over SB Sequoyia (Slope 0.5% E/F)	4	Stage 2	Dynamic	8/25/26	10/25/26	3	Q3 2026
137	D1	DUB2-C01-008	Sequoyia Blvd	Century Blvd to Lincoln	SB	FULL	0	UNKNOWN	Yes	Bridge Construction	Form Slab Over SB Sequoyia	8	Stage 2	Dynamic	8/24/26	9/30/26	5	Q3 2026

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA FLATIRON

DATE:
REVISION:

18/08/2024
V8

ID	APPENDIX	APPENDIX	STREET	LIMITS OF SECTORMENT	DIRECTION	NO. OF CLOSED LANES	NO. OF CLOSURES	TRAFFIC LIGHT	STATUS	Category	DESCRIPTION	NO. OF OCCUPANCY	NO. OF STAGES	STATUS/DURATION	START DATE	END DATE	DURATION	Start 2024
138	D1	7002-CC1-008	Sepulveda Blvd	Century Blvd to Lincoln	SB	FULL	0	#UNKNOWNT	Yes	Bridge Construction	Polish Scaff Over SB Sepulveda	4	Stage 7	Dynamic	8/2/26	3/3/28	4	Q3 2026
139	D1	7002-CC1-008	Sepulveda Blvd	Century Blvd to Lincoln	SB	FULL	0	#UNKNOWNT	Yes	Followwork	Remove Followwork Over SB Sepulveda (40% 50% EFF)	11	Stage 1	Dynamic	3/4/27	3/3/27	4	Q1 2027
140	D1	7002-CC1-008	Sepulveda Blvd	Century Blvd to Lincoln	SB	FULL	0	#UNKNOWNT	Yes	Followwork	Remove Followwork Over SB Sepulveda (40% 50% EFF)	11	Stage 2	Dynamic	3/2/27	3/3/27	2	Q1 2027
141	D1	7002-CC1-008	Sepulveda Blvd	Century Blvd to Lincoln	NB	FULL	0	#UNKNOWNT	Yes	Electrical	Install Street Lighting	3	Stage 2	Dynamic			0	Q1 2027
142	D1	7002-CC1-008	Sepulveda Blvd	Century Blvd to Lincoln	SB	FULL	0	#UNKNOWNT	Yes	Electrical	Install Street Lighting	3	Stage 2	Dynamic			0	Q2 2027
143	D1	6002-CC1-008	Sepulveda Blvd	Century Blvd to Lincoln	WB / SB	FULL	0	#UNKNOWNT	Yes	Bridge Construction	Polish Scaff & Struts (50% 60% EFF)	2	Stage 1	Dynamic	10/2/26	11/2/26	3	Q4 2026
144	D1	6002-CC1-008	Sepulveda Blvd	Century Blvd to Lincoln	WB / SB	FULL	0	#UNKNOWNT	Yes	Bridge Construction	TPS Bunker (50% 60% EFF)	4	Stage 2	Dynamic			0	Q1 2027
145	D1	6002-CC1-008	Sepulveda Blvd	Century Blvd to Lincoln	WB / SB	FULL	0	#UNKNOWNT	Yes	Bridge Construction	Post Deck (70% 80% EFF)	3	Stage 2	Dynamic	1/26/27	1/2/27	1	Q1 2027
146	D1	6002-CC1-008	Sepulveda Blvd	Century Blvd to Lincoln	SB	2	2	#UNKNOWNT	Yes	Columns	CDM Manage Scaffs (2nd struts)	3	Stage 2	Dynamic	7/10/26	7/14/26	3	Q3 2026
147	D1	6002-CC1-008	Sepulveda Blvd	Century Blvd to Lincoln	SB	2	2	#UNKNOWNT	Yes	Columns	CDM Manage Scaffs (2nd struts)	3	Stage 2	Dynamic	6/2/26	6/2/26	3	Q3 2026
148	D1	6002-CC1-008	Sepulveda Blvd	Century Blvd to Lincoln	SB	2	2	#UNKNOWNT	Yes	Columns	CDM Post Construction not off Bunk 2	3	Stage 2	Dynamic	7/10/26	7/22/26	1	Q1 2027
149	D1	6002-CC1-008	Sepulveda Blvd	Century Blvd to Lincoln	SB	2	2	#UNKNOWNT	Yes	Columns	CDM Post Construction not off Bunk 3	3	Stage 2	Dynamic	6/4/26	6/4/26	1	Q1 2026

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/25/2024
REVISION: 04

ROAD CLOSURE																				
#	SEQUENCE	PROJECT ID	STREET	LIMITS OF SEGMENT	DIRECTION	NO. OF CLOSED LANES	NO. OF OPEN LANES	SHAPE	YES	NO	DETAILS	NO. OF CLOSURE LANES	NO. OF OPEN LANES	SHAPE	YES	NO	DATE	REVISION	DATE	REVISION
158	D1	3082-C01-008	Sequoyia Blvd	Century Blvd to Lincoln	SB	1	1	UNKNOWN	Yes	Columns	Deadman & Cable Guy Rebar Column Bent 2 (50', 62.5% EFF)	4	Stage 2	Dynamic	7/14/26	7/17/26	4	03	2026	
151	D1	3082-C01-008	Sequoyia Blvd	Century Blvd to Lincoln	SB	2	2	UNKNOWN	Yes	Columns	Deadman & Cable Guy Rebar Column Bent 3 (50', 62.5% EFF)	4	Stage 2	Dynamic	5/25/26	5/27/26	4	02	2026	
152	D1	3082-C01-008	Sequoyia Blvd	Century Blvd to Lincoln	SB	3	3	UNKNOWN	Yes	Columns	Form & Spile Columns Bent 2 (50', 62.5% EFF)	3	Stage 2	Dynamic	7/22/26	7/24/26	3	03	2026	
153	D1	3082-C01-008	Sequoyia Blvd	Century Blvd to Lincoln	SB	4	4	UNKNOWN	Yes	Columns	Form & Spile Columns Bent 3 (50', 62.5% EFF)	3	Stage 2	Dynamic	8/3/26	8/10/26	3	03	2026	
154	D1	3082-C01-008	Sequoyia Blvd	Century Blvd to Lincoln	SB	5	5	UNKNOWN	Yes	Columns	Post Columns Bent 2 (50', 62.5% EFF)	1	Stage 2	Dynamic	7/22/26	7/24/26	1	03	2026	
155	D1	3082-C01-008	Sequoyia Blvd	Century Blvd to Lincoln	SB	6	6	UNKNOWN	Yes	Columns	Post Columns Bent 3 (50', 62.5% EFF)	1	Stage 2	Dynamic	8/10/26	8/18/26	1	03	2026	
156	D2	309-001	Century Blvd	Interway to Vickburg STA 43+84.05 TO STA 47+58.41	WB	FULL	0	UNKNOWN	Yes	Framework	Sub E Erect Framework Bent 4 Frame 4 (50', 50% EFF)	5	Stage 5	Dynamic	3/22/27	3/24/27	5	01	2027	
157	D2	309-001	Century Blvd	Interway to Vickburg STA 43+84.05 TO STA 47+58.41	WB	FULL	0	UNKNOWN	Yes	Framework	Sub E Erect Framework Bent 4 Frame 4 (50', 50% EFF)	5	Stage 5	Dynamic	3/22/27	3/24/27	5	01	2027	
158	D2	309-001	Century Blvd	Interway to Vickburg STA 43+84.05 TO STA 47+58.41	WB	FULL	0	UNKNOWN	Yes	Framework	Erect Sub E Erect Framework Bent 4 Frame 4 (50', 50% EFF)	5	Stage 5	Dynamic	3/22/27	3/24/27	5	01	2027	
159	D2	309-001	Century Blvd	Interway to Vickburg STA 43+84.05 TO STA 47+58.41	WB	FULL	0	UNKNOWN	Yes	Framework	Erect Sub E Erect Framework Bent 4 Frame 4 (50', 50% EFF)	5	Stage 5	Dynamic	3/22/27	3/24/27	5	01	2027	

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/26/2024
REVISION: 04

#	SEGMENT	SHEET NO.	STREET	CONSTRUCTION	DIRECTION	CONSTRUCTION	CONSTRUCTION	STATUS	Category	ACTIVITY	NO. OF OCCURRENCES	THREATS	IMPACTS	MITIGATION	CONSTRUCTION	DATE	
150	D2	S03-001	Century Blvd	Interway to Vicksburg STA 43+04.65 TO STA 47+58.44	EB	FULL	0	UNKNOWN	Yes	Falsework	Falsework Grade Adjustment Frame 4 (4th, 50% EFF)	2	Stage 5	Dynamic	0	01/2027	
151	D2	S03-001	Century Blvd	Interway to Vicksburg STA 43+04.65 TO STA 47+58.44	WB	FULL	0	UNKNOWN	Yes	Falsework	Falsework Grade Adjustment Frame 4 (4th, 50% EFF)	2	Stage 5	Dynamic	0	01/2027	
152	D2	S03-001	Century Blvd	Interway to Vicksburg STA 43+04.65 TO STA 47+58.44	EB	FULL	0	UNKNOWN	Yes	Bridge Construction	Form Soils Frame 4 (4th, 50% EFF)	1	Stage 5	Dynamic	3/25/27	4/1/27	01/2027
153	D2	S03-001	Century Blvd	Interway to Vicksburg STA 43+04.65 TO STA 47+58.44	WB	FULL	0	UNKNOWN	Yes	Bridge Construction	Form Soils Frame 4 (4th, 50% EFF)	1	Stage 5	Dynamic	3/25/27	4/1/27	01/2027
154	D2	S03-001	Century Blvd	Interway to Vicksburg STA 43+04.65 TO STA 47+58.44	EB	PULL	0	UNKNOWN	Yes	Falsework	Remove Falsework Frame 4 (4th, 50% EFF)	2	Stage 5	Dynamic	7/3/26	7/1/26	03/2026
155	D2	S03-001	Century Blvd	Interway to Vicksburg STA 43+04.65 TO STA 47+58.44	WB	FULL	0	UNKNOWN	Yes	Falsework	Remove Falsework Frame 4 (4th, 50% EFF)	2	Stage 5	Dynamic	7/3/26	7/1/26	03/2026
156	D2	S03-001	Century Blvd	Interway to Vicksburg STA 43+04.65 TO STA 47+58.44	EB	1	3	UNKNOWN	Yes	Structural	Install Soils Lifting	1	Stage 5	Dynamic			03/2026
157	D2	S03-001	Century Blvd	Interway to Vicksburg STA 43+04.65 TO STA 47+58.44	WB	FULL	0	UNKNOWN	Yes	Structural	Install Soils Lifting		Stage 5	Dynamic			03/2026
158	D2	S03-001	Century Blvd	Interway to Vicksburg STA 43+04.65 TO STA 47+58.44	WB / EB	FULL	0	UNKNOWN	Yes	Bridge Construction	Install Soils & Struts Frame 4 (4th, 50% EFF)	2	Stage 5	Dynamic	5/1/27	10/1/27	03/2027
159	D2	S03-001	Century Blvd	Interway to Vicksburg STA 43+04.65 TO STA 47+58.44	WB / EB	FULL	0	UNKNOWN	Yes	Bridge Construction	Pour Deck Frame 4 (4th, 50% EFF)	1	Stage 5	Dynamic	7/26/27	7/26/27	07/2027
170	D2	S03-001	Century Blvd	Interway to Vicksburg STA 43+04.65 TO STA 47+58.44	WB / EB	FULL	0	UNKNOWN	Yes	Bridge Construction	Pour Hinge 4 Frame 4 (4th, 50% EFF)	2	Stage 5	Dynamic			02/2027
171	D2	S03-001	Century Blvd	Interway to Vicksburg STA 43+04.65 TO STA 47+58.44	WB / EB		3	UNKNOWN	Yes	Bridge Construction	Move material & set of subgrade Frame 4 (4th, 50% EFF)	0	Stage 5	Dynamic			07/2027

ATMP Landslide Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/26/2024
REVISION: 01

#	VEHICLE	STATION	ROAD	LOCATION	STATUS	TYPE	DATE	SNAPSHOT	DETAILS	Category	ACTIVITY	VEHICLE	STATION	ROAD	LOCATION	STATUS	DATE	DATE	DATE	DATE
172	D2	503-001	Century Blvd	Interway to Vicksburg STA 42+04.85 TO STA 47+50.44	FR	FULL	0	UNKNOWN	Yes	Bridge Construction	E+5 Span Frame 4 (6v, 50% EFF)	3	Stage 5	Dynamic			0	Q2 2027		
173	D2	503-001	Century Blvd	Interway to Vicksburg STA 42+04.85 TO STA 47+50.44	WB	FULL	0	UNKNOWN	Yes	Bridge Construction	E+5 Span Frame 4 (6v, 50% EFF)	2	Stage 5	Dynamic			0	Q2 2027		
174	D2	503-002	Century Blvd	Interway to Vicksburg	EB	1	3	UNKNOWN	No	Columns	Four Columns Frame 4 Span 10 (4v, 50% EFF)	1	Stage 5	Dynamic	10/20/27	10/20/27	1	Q3 2027		
175	D2	503-001	Century Blvd	Interway to Vicksburg	EB	1	3	UNKNOWN	No	Columns	Four Columns Frame 4 Span 9 (4v, 50% EFF)	1	Stage 5	Dynamic	1/2/28	1/2/28	1	Q1 2028		
176	D2	503-001	Century Blvd	Interway to Vicksburg	WB	1	3	UNKNOWN	No	Columns	Column Frame Frame 4 Span 10 (4v, 50% EFF)	1	Stage 5	Dynamic	10/20/27	10/20/27	3	Q3 2027		
177	D2	503-001	Century Blvd	Interway to Vicksburg	FR	1	3	UNKNOWN	No	Columns	Column Frame Frame 4 Span 10 (4v, 50% EFF)	1	Stage 5	Dynamic	1/2/28	1/2/28	3	Q1 2028		
178	D2	503-001	Century Blvd	Interway to Vicksburg	EB	1	3	UNKNOWN	No	Columns	Deckman & Cable Guy Retain Column Frame 4 Span 10 (4v, 50% EFF)	4	Stage 5	Dynamic	10/14/27	10/14/27	4	Q3 2027		
179	D2	503-001	Century Blvd	Interway to Vicksburg	EB	1	3	UNKNOWN	No	Columns	Deckman & Cable Guy Retain Column Frame 4 Span 8 (4v, 50% EFF)	4	Stage 5	Dynamic	1/13/28	1/13/28	4	Q1 2028		
180	D2	503-001	Century Blvd	Interway to Vicksburg	WB	1	3	UNKNOWN	No	Columns	120" CDM Manage Spoils (6v, 50% EFF)	8	Stage 5	Dynamic	10/21/28	10/21/28	4	Q3 2028		
181	D2	503-001	Century Blvd	Interway to Vicksburg	WB	1	3	UNKNOWN	No	Columns	120" CDM Pave Concrete to sub-41	1	Stage 5	Dynamic	11/2/28	11/2/28	1	Q1 2028		
182	D2	503-001	Century Blvd	Interway to Vicksburg	FR	1	3	UNKNOWN	No	Columns	144" CDM Manage Spoils Span 10-32 (4v shifts)	10	Stage 5	Dynamic	3/20/27	10/13/27	12	Q3 2027		

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

REVISION:		10/25/2024		V4		DATE:		PROJECT: SKANSKA | FLATIRON												
#	DESCRIPTION	DATE	BY	REASON	STATUS	TYPE	LOCATION	DETAILS	STATUS	TYPE	LOCATION	DETAILS	STATUS	TYPE	LOCATION	DETAILS	STATUS	TYPE	LOCATION	DETAILS
183	D2	503-001	Century Blvd	Judway to Victoria	18	1	3	UNKNOWN	No	Columns	144" CDM MANAGE SPILLS Part 5 (6% slope)	5	Stage 1	Dynamic	1/6/25	1/6/25	25	Q1	2026	
184	D2	503-001	Century Blvd	Judway to Victoria	19	1	3	UNKNOWN	No	Columns	144" CDM POUR CONCRETE TO CUT-OFF Ramp (5-11 sh. slope)	3	Stage 3	Dynamic	10/11/27	10/11/27	3	Q2	2027	
185	D2	503-001	Century Blvd	Judway to Victoria	19	1	3	UNKNOWN	No	Columns	144" CDM POUR CONCRETE TO CUT-OFF Ramp 5 (6% slope)	3	Stage 3	Dynamic	1/19/28	1/19/28	1	Q1	2028	
186	K2	504-507-001	Sepulveda Blvd	NB Sepulveda World Way Ramp to Century Blvd	NB	2	2	UNKNOWN	No	Followwork	Full Erect Followwork Struts Str - 62.5% EFF	1	Stage 0	Dynamic	4/24/28	4/24/28	2	Q2	2028	
187	K2	504-507-001	Sepulveda Blvd	SB Sepulveda at Century Blvd, to Imperial Hwy	SB	2	2	UNKNOWN	No	Followwork	Full Erect Followwork Struts Str - 62.5% EFF	1	Stage 0	Dynamic	4/28/28	8/1/28	2	Q2	2028	
188	K2	504-507-001	Sepulveda Blvd	NB Sepulveda World Way Ramp to Century Blvd	NB	FULL	3	UNKNOWN	Yes	Followwork	Erect Strangers Str - 62.5% EFF	1	Stage 5	Dynamic	4/24/28	1/25/28	2	Q1	2028	
189	K2	504-507-001	Sepulveda Blvd	SB Sepulveda at Century Blvd, to Imperial Hwy	SB	FULL	3	UNKNOWN	Yes	Followwork	Erect Strangers Str - 62.5% EFF	1	Stage 5	Dynamic	4/28/28	5/3/28	2	Q2	2028	
190	K2	504-507-002	Sepulveda Blvd	NB Sepulveda World Way Ramp to Century Blvd	NB	FULL	3	UNKNOWN	Yes	Followwork	Followwork Grade Adjustment Str - 62.5% EFF	2	Stage 5	Dynamic			0	Q2	2028	
191	K2	504-507-004	Sepulveda Blvd	SB Sepulveda at Century Blvd, to Imperial Hwy	SB	FULL	3	UNKNOWN	Yes	Followwork	Followwork Grade Adjustment Str - 62.5% EFF	2	Stage 5	Dynamic			0	Q2	2028	
192	K2	504-507-004	Sepulveda Blvd	SB Sepulveda at Century Blvd, to Imperial Hwy	NB	FULL	3	UNKNOWN	Yes	Bridge Construction	Form Curb Str - 62.5% EFF	1	Stage 5	Dynamic	5/8/28	5/23/28	13	Q2	2028	
193	K2	504-507-004	Sepulveda Blvd	SB Sepulveda at Century Blvd, to Imperial Hwy	NB	FULL	3	UNKNOWN	Yes	Bridge Construction	Form Curb Str - 62.5% EFF	1	Stage 5	Dynamic	5/8/28	5/23/28	12	Q2	2028	
194	K2		Sepulveda Blvd	NB Sepulveda World Way Ramp to Century Blvd	NB	FULL	3	UNKNOWN	Yes	Followwork	Remove Followwork Str - 62.5% EFF	1	Stage 5	Dynamic	10/27/28	10/27/28	1	Q4	2028	

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/28/2024
REVISION: NA

#	SEQUENCE	STREET	INTERSECTION	DIRECTION	NO. OF LANES	NO. OF LANES	NO. OF LANES	STATUS	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION
195	K2	Sequoia Blvd	SB Sequoia at Century Blvd. to Imperial Hwy	SB	FULL	0	UNKNOWN	Yes	Bridge Construction	Phase 1	Stage 1	Dynamic	1/1/20	1/1/20	0	04/2020	
196	K2	Sequoia Blvd	SB Sequoia at Century Blvd. to Imperial Hwy	SB	FULL	0	UNKNOWN	Yes	Bridge Construction	Phase 1	Stage 1	Dynamic			0	04/2020	
197	K2	Sequoia Blvd	SB Sequoia at Century Blvd. to Imperial Hwy	SB	FULL	0	UNKNOWN	Yes	Bridge Construction	Phase 1	Stage 1	Dynamic			0	04/2020	
198	K2	Sequoia Blvd	SB Sequoia at Century Blvd. to Imperial Hwy	SB	2	2	UNKNOWN	Yes	Bridge Construction	Phase 1	Stage 1	Dynamic			0		
199	K2	Sequoia Blvd	SB Sequoia at Century Blvd. to Imperial Hwy	SB	2	2	UNKNOWN	Yes	Bridge Construction	Phase 1	Stage 1	Dynamic			0		
200	K2	Sequoia Blvd	SB Sequoia at Century Blvd. to Imperial Hwy	SB	2	2	UNKNOWN	Yes	Bridge Construction	Phase 1	Stage 1	Dynamic			0		
201	K2	Sequoia Blvd	SB Sequoia at Century Blvd. to Imperial Hwy	SB	2	2	UNKNOWN	Yes	Bridge Construction	Phase 1	Stage 1	Dynamic			0	04/2020	
202	K2	Sequoia Blvd	SB Sequoia at Century Blvd. to Imperial Hwy	SB	FULL	0	UNKNOWN	Yes	Bridge Construction	Phase 1	Stage 1	Dynamic	1/1/20	1/1/20	0	03/2020	
203	K2	Sequoia Blvd	SB Sequoia at Century Blvd. to Imperial Hwy	SB	FULL	0	UNKNOWN	Yes	Bridge Construction	Phase 1	Stage 1	Dynamic	1/1/20	1/1/20	0	03/2020	
204	K2	Sequoia Blvd	SB Sequoia at Century Blvd. to Imperial Hwy	SB	FULL	0	UNKNOWN	Yes	Bridge Construction	Phase 1	Stage 1	Dynamic	1/1/20	1/1/20	0	03/2020	
205	K2	Sequoia Blvd	SB Sequoia at Century Blvd. to Imperial Hwy	SB	FULL	0	UNKNOWN	Yes	Bridge Construction	Phase 1	Stage 1	Dynamic	1/1/20	1/1/20	0	03/2020	
206	K2	Sequoia Blvd	SB Sequoia at Century Blvd. to Imperial Hwy	SB	1	3	UNKNOWN	Yes	Bridge Construction	Phase 1	Stage 1	Dynamic			0	04/2020	

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

Date: 10/28/2024
REVISED: VC

#	WARRANT	PROJECT	LOCATION/DESCRIPTION	DIRECTION	CLOSURE	OPEN	SNAPSHOT	STATUS	CATEGORY	ACTIVITY	WORK	POSTING	POSTING	START DATE	END DATE	DURATION	DATE
207	X2	Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	SB	1	3	UNKNOWN	Yes	Column	Message Signs Bays 2 Left & Right Shr 62.5% EFF	3	Stage 5	Dynamic	3/1/26	3/15/26	4	Q1 2026
208	X2	Sequoyia Blvd	NB Sequoyia at Century Blvd.	NB	1	3	UNKNOWN	Yes	Column	Message Signs Bays 3 Left & Right Shr 62.5% EFF	2	Stage 5	Dynamic	3/23/26	3/26/26	4	Q1 2026
209	I	DU04-SIS-001	Sequoyia Blvd	NB Sequoyia World Way Ramp to Century Blvd	NB	FULL	UNKNOWN	Yes	Followwork	Field Erect Followwork Signs Shr - 100% EFF	2	Stage 4	Dynamic	1/21/27	1/22/27	2	Q1 2027
210	I	DU04-SIS-001	Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	SB	FULL	UNKNOWN	Yes	Followwork	Field Erect Followwork Signs Shr - 100% EFF	2	Stage 4	Dynamic	1/25/27	1/26/27	2	Q1 2027
211	I	DU04-SIS-001	Sequoyia Blvd	NB Sequoyia World Way Ramp to Century Blvd	NB	FULL	UNKNOWN	Yes	Followwork	Erect Signage Shr - 100% EFF	3	Stage 4	Dynamic	1/21/27	1/22/27	2	Q1 2027
212	I	DU04-SIS-001	Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	SB	FULL	UNKNOWN	Yes	Followwork	Erect Signage Shr - 100% EFF	3	Stage 4	Dynamic	1/25/27	1/26/27	2	Q1 2027
213	I	DU04-SIS-001	Sequoyia Blvd	NB Sequoyia World Way Ramp to Century Blvd	NB	FULL	UNKNOWN	Yes	Followwork	Followwork Grade Adjustment Shr - 100% EFF	3	Stage 4	Dynamic	1/21/27	1/22/27	3	Q1 2027
214	I	DU04-SIS-001	Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	SB	FULL	UNKNOWN	Yes	Followwork	Followwork Grade Adjustment Shr - 100% EFF	3	Stage 4	Dynamic	1/25/27	1/26/27	3	Q1 2027
215	I	DU04-SIS-001	Sequoyia Blvd	NB Sequoyia World Way Ramp to Century Blvd	NB	FULL	UNKNOWN	Yes	Bridge Construction	Form Slabs Shr 62.5% EFF	2	Stage 4	Dynamic	2/4/27	2/16/27	5	Q1 2027

ATMP Landslide Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/25/2024
REVISION: 00

ID	SEQUENCE	SHEET NO.	STREET	CONSTRUCTION	NO. OF LANE CLOSURES	NO. OF LANE CHANGES	TRAFFIC SIGNAL	TYPE OF WORK	Category	ACTIVITY	NO. OF WORKERS	PROPOSED SIGNAL	PROPOSED SIGNAL	START DATE	END DATE	DURATION	STATUS	
716	1	DU04-S05-001	Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	SB	FULL		UNKNOWN	No	Bridge Construction	Form Girders for 62.5% EFT	2	Stage 4	Dynamic	7/11/27	7/18/27	8	Q1 2027
727	1	DU04-S05-002	Sequoyia Blvd	NO Sequoyia World Way Ramp to Century Blvd	NO	2		UNKNOWN	No	Interwork	Remove Pedestrian for 62.5% EFT	3	Stage 4	Dynamic	7/20/27	7/27/27	8	Q3 2027
718	1	DU04-S05-003	Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	SB	2		UNKNOWN	No	Interwork	Remove Pedestrian for 62.5% EFT	3	Stage 4	Dynamic	7/22/27	7/29/27	8	Q3 2027
719		DU04-S05-003	Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	SB	FULL	0	UNKNOWN	No	Bridge Construction	Pour Deck & Sides for 62.5% EFT	2	Stage 4	Dynamic	7/28/27	7/29/27	2	Q3 2027
720		DU04-S05-004	Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	NO	FULL	0	UNKNOWN	No	Bridge Construction	Pour Deck & Sides for 62.5% EFT	2	Stage 4	Dynamic	7/28/27	7/29/27	2	Q3 2027
721			Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	SB	FULL	0	UNKNOWN	No	Bridge Construction	E + S Barrier for 62.5% EFT	2	Stage 4	Dynamic			8	Q3 2027
722	1		Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	NO	FULL	3	UNKNOWN	No	Bridge Construction	E + S Barrier for 62.5% EFT	2	Stage 4	Dynamic			10	Q3 2027
723	1		Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	SB	FULL	3	UNKNOWN	No	Bridge Construction	Pour Deck for 62.5% EFT	1	Stage 4	Dynamic	8/15/27	8/18/27	4	Q2 2027
724	1		Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	NO	FULL	0	UNKNOWN	No	Bridge Construction	Pour Deck for 62.5% EFT	1	Stage 4	Dynamic	8/15/27	8/18/27	4	Q2 2027
725	1		Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	SB	FULL	0	UNKNOWN	No	Bridge Construction	Install Deck Lighting	1	Stage 4	Dynamic			3	Q3 2027
726	1		Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	NO	FULL	0	UNKNOWN	No	Bridge Construction	Install Deck Lighting	1	Stage 4	Dynamic			9	Q2 2027
727	1		Sequoyia Blvd	SB Sequoyia at Century Blvd. to Imperial Hwy	NO	2	2	UNKNOWN	No	Deliver	Manage Traffic from 2 Left & Right for 62.5% EFT	2	Stage 4	Dynamic	8/18/28	8/23/28	6	Q3 2028

DATE: 10/25/2024
REVISION: V4

ID		NAME		LOCATION		STRUCTURE		DETAILS		ANALYSIS		DESIGN		CONSTRUCTION		OPERATION		MAINTENANCE	
NO.	TYPE	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME
NO.	TYPE	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME
128	I		Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four concrete up call out 72" CDH Bent 2 Left & Right SW 62.5% EFF	2	Stage 4	Dynamic	8/31/20	9/15/20	0	Q3 2020	
129	I		Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four concrete up call out 72" CDH Bent 2 Left & Right SW 62.5% EFF	2	Stage 4	Dynamic	9/1/20	9/8/20	0	Q4 2020	
130	I		Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four concrete up call out 72" CDH Bent 2 Left & Right SW 62.5% EFF	2	Stage 4	Dynamic	9/1/20	9/8/20	0	Q4 2020	
231	I		Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Drill down 6 Column City Water Column Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/25/20	10/2/20	0	Q3 2020	
232	I		Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Drill down 6 Column City Water Column Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/25/20	10/2/20	0	Q4 2020	
233	I		Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
234	I		Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
235	I		Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
236	I		Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
237	P	1004-1010-001	Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
238	P	1004-1010-002	Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
239	P	1004-1010-003	Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
240	P	1004-1010-004	Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
241	P	1004-1010-005	Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
242	P	1004-1010-006	Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
243	P	1004-1010-007	Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
244	P	1004-1010-008	Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
245	P	1004-1010-009	Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
246	P	1004-1010-010	Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
247	P	1004-1010-011	Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
248	P	1004-1010-012	Septuaginta Blvd	SB Septuaginta at Century Blvd, to Imperial Hwy	SB	2	3	UNKNOWN	No	Columns	Four Columns Bent 2 Left & Right SW 62.5% EFF	0	Stage 4	Dynamic	9/2/20	9/8/20	0	Q4 2020	
249	P	1004-1010-013	Septuaginta Blvd</																

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/19/2016
REVISION: V4

LINE	STAGE	DESCRIPTION	LOCATION	DATE	STATUS	TYPE	IMPACT	ACTIVITY	NO. OF OCCURRENCES	PROJECT REASON	STATUS/DYNAMIC	START DATE	END DATE	STATUS	DATE
240	P	DUG-530-002	Sepulveda Blvd	SB Sepulveda at Century Blvd, to Imperial Hwy	SB	FULL	UNKNOWN	Block Signage 20' - 25.5M OFF	1	Stage 5	Dynamic			0	01/2017
241	P	DUG-530-003	Sepulveda Blvd	NR Sepulveda World Way Ramp to Century Blvd	NR	FULL	UNKNOWN	Follow-up Grade Adjustment 20' - 25.5M OFF	1	Stage 5	Dynamic			0	02/2017
242	P	DUG-530-004	Sepulveda Blvd	SB Sepulveda at Century Blvd, to Imperial Hwy	SB	FULL	UNKNOWN	Follow-up Grade Adjustment 20' - 25.5M OFF	1	Stage 5	Dynamic			0	03/2017
243	P	DUG-530-005	Sepulveda Blvd	SB Sepulveda at Century Blvd, to Imperial Hwy	SB	FULL	UNKNOWN	Block Signage	2	Stage 5	Dynamic	07/2016	07/2016	10	04/2017
244	P	DUG-530-006	Sepulveda Blvd	SB Sepulveda at Century Blvd, to Imperial Hwy	SB	FULL	UNKNOWN	Block Signage	2	Stage 5	Dynamic	07/2016	07/2016	10	05/2017
245	P	DUG-530-007	Sepulveda Blvd	NR Sepulveda World Way Ramp to Century Blvd	NR	FULL	UNKNOWN	Block Signage 20' - 25.5M OFF	1	Stage 5	Dynamic			0	06/2017
246	P	DUG-530-008	Sepulveda Blvd	SB Sepulveda at Century Blvd, to Imperial Hwy	SB	FULL	UNKNOWN	Block Signage 20' - 25.5M OFF	1	Stage 5	Dynamic			0	07/2017
247	P	DUG-530-009	Sepulveda Blvd	SB Sepulveda at Century Blvd, to Imperial Hwy	SB	FULL	UNKNOWN	Block Signage	2	Stage 5	Dynamic			0	08/2017
248	P	DUG-530-010	Sepulveda Blvd	NR Sepulveda at Century Blvd, to Imperial Hwy	NR	FULL	UNKNOWN	Block Signage	1	Stage 5	Dynamic			0	09/2017
249	H	SDB-001	World Way	FRAME 1	SB	0	UNKNOWN	Block Signage	2	Stage 5	Dynamic	11/2016	11/2016	0	24/2016
250	H	SDB-002	World Way	FRAME 1	SB	0	UNKNOWN	Block Signage	1	Stage 5	Dynamic	11/2016	11/2016	0	04/2017
251	H	SDB-003	World Way	FRAME 1	SB	0	UNKNOWN	Block Signage	2	Stage 5	Dynamic			0	05/2017

ATMP Landside Improvements Project

TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 18/08/2024
REVISION: V4

#	ASSEMBLY	SYMBOL	WORLD WAY	CHIEF OF ENGINEER	CORROSION	VOL. OF OCCURRENCE	NEXT OPENING	STATUS	REPAIR	DAMAGE	ACTION	NEXT OCCURRENCE	REPAIR DATE	Status of Dynamic	TEST DATE	STATUS	REPAIR DATE	REMARKS	
107	H	108-009	World Way	FRAME 1	SL	9			UNKNOWN	No	Bridge Construction	Furn Self	6	Stage 7	Dynamic	11/17/20	11/17/20	7	Q4 2020
108	H	108-010	World Way	FRAME 1	SL	6			UNKNOWN	No	Followwork	Lecture Followwork	3	Stage 6	Dynamic	4/11/20	4/11/20	3	Q3 2020
109	H	108-001	World Way	M - BENT 7,B,B	ES	2	4		UNKNOWN	No	Followwork	F&B Erect Followwork Setts	2	Stage 6	Dynamic	5/16/20	5/16/20	3	Q2 2020
109	H	108-001	World Way	M - BENT 6 HINDE 1	ED	FULL	9		UNKNOWN	No	Followwork	F&B Erect Followwork Setts	1	Stage 6	Dynamic	5/16/20	5/16/20	3	Q2 2020
120	H	108-001	World Way	M - BENT 7,B,B	ES	2	4		UNKNOWN	No	Followwork	Erect Stringer	2	Stage 6	Dynamic	5/16/20	5/16/20	3	Q3 2020
121	H	108-001	World Way	M - BENT 6, HINDE 1	ES	FULL	6		UNKNOWN	No	Followwork	Erect Stringer	1	Stage 6	Dynamic	5/16/20	5/16/20	3	Q2 2020
122	H	108-001	World Way	M - BENT 7,B,B	ED	2	4		UNKNOWN	No	Followwork	Followwork Grade Adjustment		Stage 6	Dynamic			6	
123	H	108-001	World Way	M - BENT 6, HINDE 1	ED	FULL	6		UNKNOWN	No	Followwork	Followwork Grade Adjustment		Stage 6	Dynamic			6	
124	H	108-001	World Way	M - BENT 6,7,B,B HINDE 1	ES	2	4		UNKNOWN	No	Bridge Construction	Furn Self	2	Stage 6	Dynamic	5/16/20	5/16/20	6	Q2 2020
125	H	108-001	World Way	M - BENT 6, HINDE 1	ES	FULL	1		UNKNOWN	No	Bridge Construction	Furn Self	2	Stage 6	Dynamic	5/16/20	5/16/20	6	Q2 2020
126	H	108-001	World Way	M - BENT 7,B,B	ED	2	4		UNKNOWN	No	Followwork	Remove Followwork	2	Stage 6	Dynamic			6	Q4 2020
127	H	108-001	World Way	M - BENT 6,HINDE 1	ED	FULL	6		UNKNOWN	No	Followwork	Remove Followwork	1	Stage 6	Dynamic			6	Q4 2020

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

REVISION		18/02/2024	04	SKANSKA PLATFORM																				
GENERAL				STRUCTURAL											DETAILS									
#	DESCRIPTION	ISSUED	STATUS	UNIT OF MEASUREMENT	QUANTITY	UNIT PRICE	TOTAL PRICE	REMARKS	DESIGN	CONSTRUCTION	INSTALLATION	MAINTENANCE	REPAIRS	REPLACEMENT	START DATE	END DATE	COMPLETION	AMOUNT						
264	H	506-001	World Way	FRAME 2	EB	2	1	UNKNOWN	No	Bridge Construction	Post Closure	1	Stage 4	Dynamic				0						
265	H	506-001	World Way	FRAME 2	EB	2	1	UNKNOWN	No	Bridge Construction	6 x 5 Closure Post	7	Stage 6	Dynamic				0						
266	H	506-001	World Way	FRAME 2	EB	2	1	UNKNOWN	No	Bridge Construction	Post Deck	1	Stage 6	Dynamic	04/23	04/24	1	Q3 2024						
267	H	506-001	World Way	FRAME 1	EB	2	1	UNKNOWN	No	Bridge Construction	Post Bridge	7	Stage 6	Dynamic	3/9/23	4/15/24	26	Q1 2024						
268	H	506-001	World Way	FRAME 2	EB	2	4	UNKNOWN	No	Bridge Construction	Post Solid & Stems	2	Stage 6	Dynamic	7/5/23	7/7/23	2	Q3 2023						
269	H	506-001	World Way	H1 - BENT 6,7,8,9	EB	2	4	UNKNOWN	No	Columns	Section 4 Cable Stay Rubber Column	16	Stage 6	Dynamic	04/23	4/25/23	16	Q2 2024						
270	H	506-001	World Way	H1 - BENT 6,7,8,9	EB	2	4	UNKNOWN	No	Columns	Post Column	12	Stage 6	Dynamic	4/12/23	5/2/24	12	Q1 2024						
271	H	506-001	World Way	H1 - BENT 6,7,8,9	EB	2	4	UNKNOWN	No	Columns	Post Columns	12	Stage 6	Dynamic	4/18/23	5/4/24	12	Q2 2024						
272	H	506-001	World Way	H1 - BENT 1,5,6,8,9	EB	2	4	UNKNOWN	No	Columns	Manage Spills 80" CLOS - BENT 1,2		Stage 6	Dynamic				0						
273	H	506-001	World Way	H1 - BENT 8	EB	2	4	UNKNOWN	No	Columns	Manage Spills 84" CLOS - BENT 6		Stage 6	Dynamic				0						
274	H	506-001	World Way	H1 - BENT 8	EB	2	4	UNKNOWN	No	Columns	Manage Spills 72" CLOS - BENT 8		Stage 6	Dynamic				0						
275	-	206-001	World Way	Center Way to North World Way	RB	FULL		UNKNOWN	Yes	Footwalk	Full Erect Footwalk Stairs	2	Stage 2	Dynamic	5/28/23	6/3/23	8	Q2 2023						

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE:
VERSION:

06/05/2024
1.0

#	COORDINATE	STREET	STREET	LIMITS OF SEGMENT	Direction	WILDT	CLOSURE	DATE	SHAPEFILE	DATE	Category	ACTIVITY	NO. OF CLOSURES	STAGE	MODE	START DATE	END DATE	STATUS	DATE	
276	L	508-001	World Way	Center Way to North World Way	NB	FULL			UNKNOWN		Yes	Streetwork	Bridge Strengthen	3	Stage 2	Dynamic	5/2/26	6/3/26	5	02 2026
277	L	508-001	World Way	Center Way to North World Way	NB	FULL			UNKNOWN		Yes	Streetwork	Bridge Deck Adjustment	10	Stage 2	Dynamic	6/3/26	6/15/26	10	02 2026
278	L	508-001	World Way	Center Way to North World Way	NB	FULL			UNKNOWN		Yes	Bridge Construction	Repair Road	10	Stage 2	Dynamic	6/4/26	6/25/26	10	02 2026
279	L	508-001	World Way	Center Way to North World Way	NB	FULL			UNKNOWN		Yes	Streetwork	Remove Footwork		Stage 2	Dynamic			6	
280	L	508-001	World Way	Center Way to North World Way	NB	FULL	0		UNKNOWN		Yes	Bridge Construction	E + S Repair		Stage 2	Dynamic			3	
281	L	508-001	World Way	Center Way to North World Way	NB	FULL	0		UNKNOWN		Yes	Bridge Construction	Post Closure		Stage 2	Dynamic			3	
282	L	508-001	World Way	Center Way to North World Way	NB	FULL	0		UNKNOWN		Yes	Bridge Construction	Post Deck	4	Stage 2	Dynamic	10/22/26	10/22/26	1	04 2026
283	L	508-001	World Way	Center Way to North World Way	NB	FULL	0		UNKNOWN		Yes	Bridge Construction	Post Deck & Stairs	2	Stage 2	Dynamic	10/22/26	10/22/26	2	03 2026
284	L	508-001	World Way	Center Way to North World Way	NB	FULL	0		UNKNOWN		Yes	Columns	Post Columns	10	Stage 2	Dynamic	10/22/26	10/22/26	10	05 2026
285	L	508-001	World Way	Center Way to North World Way	NB	FULL	0		UNKNOWN		Yes	Columns	2 x S Column Panels	15	Stage 2	Dynamic	10/22/26	10/22/26	15	06 2026
286	L	508-001	World Way	Center Way to North World Way	NB	FULL	0		UNKNOWN		Yes	Columns	Deadman & Cable Guy Riser Connect	20	Stage 2	Dynamic	10/22/26	10/22/26	20	07 2026
287	L	508-001	World Way	Center Way to North World Way	NB	FULL	0		UNKNOWN		Yes	Columns	COB Post Lateral to cut off	5	Stage 2	Dynamic	10/22/26	10/22/26	17	08 2026

ATMP Landside Improvements Project

TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 18/08/2024
REVISION: V8

#	Requirement	Light ID	Location	Orientation/Viewpoint	Direction	No. of Closed Lanes	No. of Open Lanes	Impact/Status	Approved	Design	Priority	Max. Occupancy	Max. Speed	Access/Egress	Notes/Remarks	Start Date	End Date	Duration	Open Date
288	I	S08-001	World Way	Center Way to North World Way	NR	FULL	0	UNKNOWN	Yes	Columns	Manage Spots	4	Stage 2	Dynamic		3/13/26	4/8/26	26	Q1 2026
289	L	S08-001	World Way	Center Way to North World Way	NR	FULL	0	UNKNOWN	Yes	Abutments	ABUTMENT FOUR STEEL & WINGS	1	Stage 2	Dynamic		6/15/26	5/18/26	1	Q2 2026
290	L	S08-001	World Way	Center Way to North World Way	NR	FULL	0	UNKNOWN	Yes	Abutments	ABUTMENT FOUR FOOTING	1	Stage 2	Dynamic		5/1/26	5/1/26	1	Q2 2026
291	I	S08-001	World Way	Center Way to North World Way	NR	FULL	0	UNKNOWN	Yes	Abutments	ABUTMENT FOUR (Bottom steel)	1	Stage 2	Dynamic		4/13/26	4/13/26	1	Q1 2026
292	L	S08-001	World Way	Center Way to North World Way	NR	FULL	0	UNKNOWN	Yes	Abutments	ABUTMENT FOUR SHAPES	1	Stage 2	Dynamic		4/15/26	4/15/26	1	Q2 2026
293	O	S04-001	56th St	Interway to Wickburg	WB	FULL		UNKNOWN	Yes	Falsework	Falsed Deck Falsework Beams	1	Stage 2	Dynamic		12/18/26	1/15/26	10	Q4 2026
294	O	S04-001	56th St	Interway to Wickburg	WB	FULL		UNKNOWN	Yes	Falsework	Steel Stringers	1	Stage 2	Dynamic		12/18/26	1/15/26	10	Q4 2026
295	O	S04-001	56th St	Interway to Wickburg	WB	FULL		UNKNOWN	Yes	Falsework	Falsework Grate Adjustment	2	Stage 2	Dynamic				0	Q1 2027
296	O	S04-001	56th St	Interway to Wickburg	WB	FULL		UNKNOWN	Yes	Bridge Construction	Formwork	10	Stage 2	Dynamic		1/10/27	1/10/27	13	Q1 2027
297	O	S04-001	56th St	Interway to Wickburg	WB	FULL		UNKNOWN	Yes	Falsework	Electrow Falsework	5	Stage 2	Dynamic		1/11/27	6/15/27	6	Q2 2027
298	O	S04-001	56th St	Interway to Wickburg	WB	FULL		UNKNOWN	Yes	Electrical	Install Solid Lighting	1	Stage 2	Dynamic				0	Q2 2027
299	O	S04-001	56th St	Interway to Wickburg	WB	FULL		UNKNOWN	Yes	Electrical	Install Solid Lighting	1	Stage 2	Dynamic				0	Q2 2027

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/26/2024
REVISION: Y4

ID	Segment	Sheet No.	Status	Order Reference	Direction	Dimensions (m)		Material	Notes	Status	Design	Type	Material	Status	Start Date	End Date	Duration	Remarks
						Length	Width											
100	PH	CP-110	Complete	CENTURY 5 SEPULVEDA	WB	1	2	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
101			PH S1	SEPULVEDA TO HWY	WB	1	1	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
102			PH S1	SEPULVEDA TO HWY	WB	1	1	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
103	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
104	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
105	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
106	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
107	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
108	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
109	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
110	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
111	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
112	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
113	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
114	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
115	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
116	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
117	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
118	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
119	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
120	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
121	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
122	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
123	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
124	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
125	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
126	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
127	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
128	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
129	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
130	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
131	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
132	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
133	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
134	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
135	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
136	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
137	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
138	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
139	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
140	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
141	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
142	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
143	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
144	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
145	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
146	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
147	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
148	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
149	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
150	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
151	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
152	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
153	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
154	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
155	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
156	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
157	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
158	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
159	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
160	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
161	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
162	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
163	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
164	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
165	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
166	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
167	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
168	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
169	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
170	A	2002-S01-004	PH S1	DRIFT C. Jct HWY	ED / WB	FULL	U	CONCRETE	CONCRETE	Yes	Concrete	CONCRETE	CONCRETE	Yes	2022-01-01	2022-01-01	1	01-2022
171	A	2002-S0																

ATMP Landslide Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/25/2024
BY: [Redacted]

PROJECT				TRAFFIC CONTROL				DATE											
#	DESCRIPTION	PROJECT ID	STREET	TRAFFIC DIRECTION	NO. OF LANE	NO. OF LANE	NO. OF LANE	ACTIVITY	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	
311	D9	PWB1-CT1-7100	Highway	95th to Century	50	7	1	UNKNOWN	Yes	Follow-up	Phase 2 Stage 4-5 (4/1/2024)	1	Stage 2	Dynamic	3/2/27	3/2/27	3	03/2027	
312	D2	DU02-501-004	Highway	95th to Century	50	2	1	UNKNOWN	Yes	Follow-up	Phase 2 Stage 4-5	1	Stage 2	Dynamic	2/2/27	2/2/27	6	03/2027	
313	D2	DU02-501-004	Highway	95th to Century	55	1	1	UNKNOWN	Yes	Follow-up	Phase 2 Stage 4-5	1	Stage 2	Dynamic	3/2/27	3/2/27	3	03/2027	
314	D2	DU02-501-004	SRH 51	95th to Century	EB / WB	FULL	0	UNKNOWN	Yes	Follow-up	Phase 2 Stage 4-5	2	Stage 2	Dynamic			3	03/2027	
315	D2	DU02-501-004	Highway	95th to Century	58	2	1	UNKNOWN	Yes	Follow-up	Phase 2 Stage 4-5	1	Stage 2	Dynamic	3/2/27	3/2/27	12	03/2027	
316	D2	DU02-501-004	SRH 51	95th to Century	EB / WB	FULL	0	UNKNOWN	Yes	Follow-up	Phase 2 Stage 4-5	1	Stage 2	Dynamic	3/2/27	3/2/27	11	03/2027	
317	D2	DU02-501-004	SRH 51	95th to Century	EB / WB	FULL	0	UNKNOWN	Yes	Follow-up	Phase 2 Stage 4-5	1	Stage 2	Dynamic	7/18/27	7/18/27	3	03/2027	
318	D2	DU02-501-004	Highway	95th to Century	59	FULL	0	UNKNOWN	Yes	Follow-up	Phase 2 Stage 4-5	1	Stage 2	Dynamic	7/18/27	7/18/27	1	03/2027	
319	D2	DU02-501-004	Highway	95th to Century	58	FULL	0	UNKNOWN	Yes	Follow-up	Phase 2 Stage 4-5	1	Stage 2	Dynamic				03/2027	
320	D2	DU02-501-004	SRH 51	95th to Century	EB / WB	FULL	0	UNKNOWN	Yes	Follow-up	Phase 2 Stage 4-5	1	Stage 2	Dynamic	6/14/27	6/14/27	2	03/2027	
321	D2	DU02-501-004	Highway	95th to Century	58	FULL	0	UNKNOWN	Yes	Follow-up	Phase 2 Stage 4-5	1	Stage 2	Dynamic	6/14/27	6/14/27	2	03/2027	
322	D2	DU02-501-004	SRH 51	95th to Century	EB / WB	FULL	0	UNKNOWN	Yes	Follow-up	Phase 2 Stage 4-5	1	Stage 2	Dynamic	7/18/27	7/18/27	2	03/2027	

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/28/2024
REVISION: V4

ID	Region	Project Ref.	Status	Asset Category	Structure Type	Material & Construction			Notes	Performance & Maintenance			Inspection & Compliance			Last Audit	Next Audit	Duration	Risk Level
						Material	Design	Construction		Condition	Load Capacity	Frequency	Findings	Actions					
323	01	3207-501-004	Active	Highway	Steel to Concrete	30	Full	0	UNKNOWN	No	Bridge Construction	Remove Falsework Frame 1 Sides 8-12	6	Stage 2	Dynamic	7/20/27	8/5/27	7	C3 2027
324	02	3202-501-004	Open B	Drain & Irrig.	Steel to Steel	18 / 100	Full	0	UNKNOWN	Yes	Electrical	Install Solar Lighting	1	Stage 2	Dynamic	8/5/27	9/15/27	5	CJ 2027
326	32	3202-551-004	Open Dr	Drain & Irrig.	Steel to Steel	18 / 100	Full	0	UNKNOWN	Yes	Takeover	Remove Falsework Frame 2 Sides 4-6	6	Stage 2	Dynamic	7/20/27	8/5/27	7	C3 2027
325	32	3202-551-004	Open Dr	Drain to Concrete	Steel	30	1	3	UNKNOWN	Yes	Bridge Construction	E + S Berms Frame 2	7	Stage 2	Dynamic				C2 2028
327	77	0202-581-004	Active	Highway	Steel to Concrete	50	Full	3	UNKNOWN	Yes	Bridge Construction	Erect Skirting Frame 3	3	Stage 2	Dynamic	11/8/27	1/12/27	4	C4 2027
328	12	0202-581-004	Highway	Steel to Concrete	Steel	30	Full	0	UNKNOWN	Yes	Bridge Construction	Paint Deck Frame 3	9	Stage 3	Dynamic	1/18/27	1/12/27	4	C4 2027
329	24	0202-501-004	Highway	Steel to Concrete	Steel	30	1	3	UNKNOWN	Yes	Bridge Construction	Workwork Crank Adjustment Frame 3	2	Stage 2	Dynamic			9	C4 2027
330	02	0202-501-004	Highway	Steel to Concrete	Steel	30	1	3	UNKNOWN	Yes	Bridge Construction	Form Soffit Frame 3	12	Stage 2	Dynamic	1/15/27	1/18/27	12	C4 2027
331	02	0202-581-004	Highway	Steel to Concrete	Steel	Full	0		UNKNOWN	Yes	Bridge Construction	Form Deck Frame 3	1	Stage 2	Dynamic	3/15/28	3/15/28	1	C1 2028
332	08	0202-581-004	Highway	Steel to Concrete	Steel	Full	0		UNKNOWN	Yes	Bridge Construction	Paint Hinge 3 Frame 3	2	Stage 2	Dynamic	4/12/28	5/9/28	28	C2 2027
333	02	0202-501-004	Highway	Steel to Concrete	Steel	Full	0		UNKNOWN	Yes	Bridge Construction	Form Soffit & Deck Frame 3	8	Stage 2	Dynamic	2/2/28	2/2/28	2	C1 2028
334	02	0202-551-004	Highway	Steel to Concrete	Steel	Full	0		UNKNOWN	Yes	Bridge Construction	Remove Falsework Frame 2	3	Stage 2	Dynamic	1/23/28	1/24/28	1	C2 2028

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

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10/28/2006
V4

SKANSKA FLATIRON

ID	PROJECT	ADDRESS	FLOOR	STRUCTURE TYPE	FOUNDATION			NO. OF OPEN LAMES	STATUS	REMARKS	ACTIVITY	NO. OF OCCURRENCES	PROJECT STAGE	PRIORITY	START DATE	DUE DATE	DAYS REMAINING	STATUS
					FOUNDATION	COLLAPSE	CRACKS											
335	D2	DU02-S01-004	1st Floor	18th to 19th Century	SB	1	3	UNKNOWN	Yes	Columns	FOUR COLUMN BENT BR	1	Stage 3	Dynamic	11/12/20	11/12/25	1	Q4 2020
336	D2	DU05-S01-004	1st Floor	18th to 19th Century	SB	1	3	UNKNOWN	Yes	Columns	FOUR COLUMN BENT BR	4	Stage 3	Dynamic	11/12/20	11/12/25	1	Q4 2020
337	D2	DU05-S01-004	1st Floor	18th to 19th Century	SB	1	3	UNKNOWN	Yes	Columns	FOUR COLUMN BENT BR	4	Stage 3	Dynamic	11/12/20	11/12/25	1	Q4 2020
338	D2	DU02-S03-004	1st Floor	18th to 19th Century	SB	1	3	UNKNOWN	Yes	Columns	FOUR COLUMN BENT BR	4	Stage 2	Dynamic	11/12/20	11/12/25	1	Q3 2020
339	D2	DU02-S03-004	1st Floor	18th to 19th Century	SB	1	3	UNKNOWN	Yes	Columns	FOUR COLUMN BENT BR	4	Stage 2	Dynamic	11/12/20	11/12/25	1	Q3 2020
340	D2	DU02-S03-004	1st Floor	18th to 19th Century	SB	1	3	UNKNOWN	Yes	Columns	FOUR COLUMN BENT BR	4	Stage 2	Dynamic	11/12/20	11/12/25	1	Q3 2020
341	D2	DU02-S03-004	1st Floor	18th to 19th Century	SB	1	3	UNKNOWN	Yes	Columns	FOUR COLUMN BENT BR	4	Stage 2	Dynamic	11/12/20	11/12/25	1	Q3 2020
342	D2	DU02-S03-004	1st Floor	18th to 19th Century	SB	1	3	UNKNOWN	Yes	Columns	FOUR COLUMN BENT BR	4	Stage 2	Dynamic	11/12/20	11/12/25	1	Q3 2020
343	D2	DU02-S03-004	1st Floor	18th to 19th Century	SB	1	3	UNKNOWN	Yes	Columns	FOUR COLUMN BENT BR	4	Stage 2	Dynamic	11/12/20	11/12/25	1	Q3 2020
344	D1	DU02-CG1-008	1st Floor	18th to 19th Century	SB	1	3	UNKNOWN	Yes	Columns	FOUR COLUMN BENT BR	4	Stage 2	Dynamic	11/12/20	11/12/25	1	Q3 2020
345	D1	DU02-CG1-008	1st Floor	18th to 19th Century	SB	1	3	UNKNOWN	Yes	Columns	FOUR COLUMN BENT BR	4	Stage 2	Dynamic	11/12/20	11/12/25	1	Q3 2020
346	D1	DU02-CG1-008	1st Floor	18th to 19th Century	SB	1	3	UNKNOWN	Yes	Columns	FOUR COLUMN BENT BR	4	Stage 2	Dynamic	11/12/20	11/12/25	1	Q3 2020

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

Date:
Revision:

16/03/2024
V4

#	SEGMENT	SHEET NO.	NO. OF LANES	DIRECTION	NO. OF CLOSED LANES	NO. OF OPEN LANES	SKETCH	DETAILS	Category	PROPOSED	PROPOSED STAGE	Static or Dynamic	START DATE	END DATE	STATUS	DATE		
347	TH	TH-CC-1-008	South St	Sequimette & South St	E/W	FULL	0	UNKNOWN	Yes	Bridge Construction	Form Cuts	4	Stage 1	Static	8/25/26	8/25/26	4	08/2026
348	TH	TH-CC-1-008	South St	Sequimette & South St	E/W	FULL	0	UNKNOWN	Yes	Foundation	Remove & replace	2	Stage 2	Static	3/2/27	3/2/27	2	01/2027
349		CT1-142	South St	Sequimette to Victoriaburg	EB	FULL	0	UNKNOWN	Yes	Retaining Wall	SEGMENT C.G.E. CONSTRUCTION							
350		CT1-142	South St	Journey to Victoriaburg	WB	1	1	UNKNOWN	Yes	NOT	SEGMENT C.G.E. CONSTRUCTION							
351		CT1-143	South St	Journey to Victoriaburg	WB	3	0	UNKNOWN	Yes	NOT	SEGMENT C.G.E. CONSTRUCTION							
352	3	304-002	South St	Journey to Victoriaburg	WB	FULL		UNKNOWN	Yes	Bridge Construction	Pier Scaff & Forms	2	Stage 2	Dynamic	2/1/27	3/2/27	2	02/2027
353	5	504-001	South St	Journey to Victoriaburg	WB	FULL		UNKNOWN	Yes	Bridge Construction	POUR DECK	1	Stage 2	Dynamic	4/27/27	4/27/27	1	02/2027
354	0	CT1-448	South St	Victoriaburg to Journey	EB	1	1	UNKNOWN	Yes	Columns	Pier Columns	1	Stage 2	Dynamic	10/6/26	10/6/26	1	04/2026
355	0	CT1-448	South St	Victoriaburg to Journey	EB	1	1	UNKNOWN	Yes	Columns	Form Columns	3	Stage 2	Dynamic	9/29/26	10/1/26	3	03/2026

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE:
REVISION:

10/25/2024
14

#	DESCRIPTION	PROJECT NO.	ADDRESS	UNITS OF ELEMENT	DIRECTION	NO. OF CLOSED LANES	NO. OF OPEN LANES	SNAPSHOT	STRUCTURE	CONTRACT	DESCRIPTION	NO. OF STRUCTURES	PROJECT PHASE	STATUS/REMARKS	START DATE	END DATE	LOCATION	UNIT QTY
356	B	CT1-446	XTH St	Volvoburg to Jersey	EB	1	1	UNKNOWN	Yes	Columns	Decapment & Cable Guy Rest Column	4	Stage 2	Dynamic	8/9/26	9/14/26	4	Q3 2026
357	G	CT3-446	XTH St	Volvoburg to Jersey	WB	1	1	UNKNOWN	Yes	Columns	120" DIH HEMLOCK SPOILS	4	Stage 2	Dynamic	8/15/26	9/18/26	4	Q3 2026
358	G	CT3-446	XTH St	Volvoburg to Jersey	WB	1	1	UNKNOWN	Yes	Columns	120" DIH POUR CONCRETE TO CUT OFF	1	Stage 2	Dynamic	8/25/26	11/26/26	1	Q3 2026
359		CT3-251	Volvoburg Ave	Blm St to Wm St	NB / SB	PULL	0	UNKNOWN	Yes	DOT							8	
361		1004-CT1 - 067U	Sequoia Blvd	NB Sequoia Approaching Engineer	NB	2	2	UNKNOWN	No	CHSS	Setting Post	1	Stage 6	Dynamic			0	
362		1004-CT1 - 067U	Sequoia Blvd	NB Sequoia Approaching Engineer	SB	1	2	UNKNOWN	No	CHSS	Setting Post	3	Stage 6	Dynamic			0	
363		1004-CT1 - 067U	Sequoia Blvd	NB Sequoia Approaching Engineer	NB	PULL	0	UNKNOWN	Yes	CHSS	Setting Post	1	Stage 6	Dynamic			8	
364		1004-CT3-090U	Alviti Way	EB NWS SEGMENT 1 RAMP	EB	PULL	0	UNKNOWN	Yes	CHSS	Installation of CHSS	1		Dynamic			0	
365		1004-CT3-090U	Center Way	NB Segment 1 to Center Way ramp	NB	PULL	0	UNKNOWN	Yes	CHSS	Installation of CHSS	1		Dynamic			0	

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/26/2024
REVISION: V4

ID	ADDRESS	LOCATION	TYPE	LINES OF INTEREST	DIRECTION	NO. OF CLOSURE LANE		SHAPE/SHOT	DETAIL	CLOSURE	VEHICLE	REASON FOR CLOSURE	REASON FOR CLOSURE	STATUS AS DYNAMIC	START DATE	END DATE	DURATION	START QTR
						CLOSED	OPEN											
366		DU04-C1-002U	Center Way	WB Segment A on Sepulveda Overcrossing to Arroyo	WB	1	1	#UNKNOWN#	Yes	CHSS	Replace Existing Signage	1		Dynamic			0	
367		DU04-C1-002U	Center Way	WB Segment A on Sepulveda Overcrossing to Departure	WB	1	1	#UNKNOWN#	Yes	CHSS	Replace Existing Signage	1		Dynamic			0	
368		DU03-C1-003L	Century Blvd	EB Century & Sepulveda Intersection	WB	FULL	3	#UNKNOWN#	Yes	CHSS	Replace Existing Signage	1		Dynamic			0	
369		DU03-C1-002L	Century Blvd	WB Century & Victory Intersection	WB	FULL	3	#UNKNOWN#	Yes	CHSS	Replacement of Sign Posts	1		Dynamic			0	
370		C1-012	Sepulveda Blvd	WB Century At 95th St	NB	2	2	#UNKNOWN#	No	CHSS	Installation of CHSS	1	Stage 2	Dynamic			0	
371		C1-012	Sepulveda Blvd	NB Century At 96th St	NB	1	3	#UNKNOWN#	No	CHSS	Installation of CHS Sign	1	Stage 1	Dynamic			0	
372		DU03-C1-001	Century Blvd	WB Century Between Arroyo and Victory	WB	FULL	0	#UNKNOWN#	Yes	CHSS	Installation of Full Span CHSS	1		Dynamic			3	
373		C1-011	Sepulveda Blvd	NB Sepulveda Between Century & DBH St	NB	FULL	0	#UNKNOWN#	Yes	CHSS	Installation of Full Span Mast	1		Dynamic			3	
374		C1-012	Sepulveda Blvd	NB Sepulveda Between Century & DBH St	NB	3	3	#UNKNOWN#	No	CHSS	Installation of Full Span CHSS Post on east side	1		Dynamic			0	
375		C1-013	Sepulveda Blvd	NB Sepulveda Between Century & DBH St	NB	2	5	#UNKNOWN#	No	CHSS	Installation of Full Span CHSS Post in center median	1		Dynamic			0	
376		C1-013	Sepulveda Blvd	NB Sepulveda Approaching Lincoln Blvd	EB	FULL	0	#UNKNOWN#	Yes	CHSS	Installation of Full Span Mast	1		Dynamic			0	
377		C1-014	Sepulveda Blvd	NB Sepulveda Approaching Lincoln Blvd	EB	2	7	#UNKNOWN#	Yes	CHSS	Installation of Full Span CHSS Post in center median	1		Dynamic			0	

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/20/2024
VERSION: 04

#	MODALITY	STATION	STREET	LIMITS OF SEGMENT	CLOSURE	NO. OF LANE CLOSURES		NO. OF LANE CHANGES	SEGMENT	SETBACK	CLOSURE	CLOSURE DESCRIPTION	CLOSURE DURATION	PROJECTED START DATE	PROJECTED END DATE	DURATION	START DATE		
						NO. OF LANE CLOSURES	NO. OF LANE CHANGES												
378	PTD	CT1-210	Sequoia Blvd	SEQUOIA & CENTURY BLVD INTERSECTION	NO	1	2		UNKNOWN	No	Column	CEMENT/PAVE (2) COLUMN CAGE/PLACE CONCRETE FORM COLUMN (2) PLACE COLUMN CONCRETE (1) SET COLUMN (1) PAVE CAP FORMWORK (2) PLACE CAP CONCRETE (1)	20	Stage 2	Dynamic	8/6/25	9/2/25	28	Q3 2025
379	PLD	CT1-210	Sequoia Blvd	SEQUOIA & CENTURY BLVD INTERSECTION	NO	1	0		UNKNOWN	Yes	Falswork	False Erect Falswork Setts	1	Stage 2	Dynamic	6/2/26	6/2/26	2	Q2 2026
380	PED	CT1-210	Sequoia Blvd	SEQUOIA & CENTURY BLVD INTERSECTION	NO	1	0		UNKNOWN	Yes	Falswork	False Steel Ties	1	Stage 2	Dynamic	10/2/25	10/2/25	2	Q4 2025
381	PED	CT1-210	Sequoia Blvd	SEQUOIA & CENTURY BLVD INTERSECTION	NO	1	0		UNKNOWN	Yes	Falswork	False Steel Connections & Supports	8	Stage 2	Dynamic	10/2/25	10/2/25	28	Q4 2025
382	PLD	CT1-210	Sequoia Blvd	SEQUOIA & CENTURY BLVD INTERSECTION	NO	1	0		UNKNOWN	Yes	Bridge Construction	Install Metal SIP Decking	3	Stage 2	Dynamic	10/2/25	10/2/25	8	Q4 2025
383	PED	CT1-210	Sequoia Blvd	SEQUOIA & CENTURY BLVD INTERSECTION	NO	1	0		UNKNOWN	Yes	Falswork	False Deck	1	Stage 2	Dynamic	12/1/25	12/1/25	1	Q1 2026
384	PED	CT1-210	Sequoia Blvd	SEQUOIA & CENTURY BLVD INTERSECTION	NO	1	0		UNKNOWN	Yes	Falswork	False Deck Falswork	1	Stage 2	Dynamic	10/2/25	10/2/25	1	Q4 2025
385	PED	CT1-210	Sequoia Blvd	SEQUOIA & CENTURY BLVD INTERSECTION	NO	1	0		UNKNOWN	Yes	Falswork	False Erect Falswork Setts	1	Stage 2	Dynamic	12/2/25	12/2/25	1	Q2 2026
386	PLD	CT1-210	Sequoia Blvd	SEQUOIA & CENTURY BLVD INTERSECTION	NO	1	0		UNKNOWN	Yes	Falswork	False Steel Ties	1	Stage 2	Dynamic	10/2/25	10/2/25	1	Q4 2025
387	PED	CT1-210	Sequoia Blvd	SEQUOIA & CENTURY BLVD INTERSECTION	NO	1	0		UNKNOWN	Yes	Falswork	Falsework Grade Adjustment	6	Stage 2	Dynamic	10/2/25	10/2/25	19	Q4 2025
388	PED	CT1-210	Sequoia Blvd	SEQUOIA & CENTURY BLVD INTERSECTION	NO	1	0		UNKNOWN	Yes	Bridge Construction	Install Metal SIP Decking	3	Stage 2	Dynamic	10/2/25	10/2/25	6	Q4 2025
389	PTD	CT1-210	Sequoia Blvd	SEQUOIA & CENTURY BLVD INTERSECTION	NO	1	0		UNKNOWN	Yes	Falswork	False Deck	1	Stage 2	Dynamic	12/1/25	12/1/25	1	Q4 2025

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/20/2024
REVISION: V4

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ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE:
REVISION:

16/06/2024
V4

LINE NO.	SEGMENT	STREET	LIMITS OF SEGMENT	DIRECTION	NO. OF CLOSED LANES	NO. OF SHOWN LANES	SNAPSHOT	STATUS	Category	ACTIVITY	TRAFFIC SEVERANCE	PROJECT PHASE	STREET CLOSURE	START DATE	END DATE	DURATION	DATE QTR.
396	AC02 C02-214	Sepulveda Blvd	SB SEPULVEDA & 96TH ST	SB	2	1	UNKNOWN	No	Utilities	ATT DUCTBANK 0 STA 4+05 TO STA 5+35	3	Stage AC	Dynamic	10/30/25	12/4/25	13	Q4 2025
397	AC02 C02-214	Sepulveda Blvd	SB SEPULVEDA & 96TH ST	SB	2	2	UNKNOWN	No	Utilities	ATT DUCTBANK 0 STA 4+05 TO STA 5+35	2	Stage AC	Dynamic	11/30/25	12/4/25	13	Q4 2025
398	AC02 C02-214	96th St	SEPULVEDA & 96TH ST	SB	FULL	0	UNKNOWN	No	Utilities	ATT DUCTBANK 2 MAIN LINE TO EXISTING FWH	30	Stage AC	Static	11/5/25	12/28/25	30	Q4 2025
399	AC02 C02-214	Sepulveda Blvd	SB SEPULVEDA & 96TH ST	SB	2	2	UNKNOWN	No	Utilities	ATT DUCTBANK 2 Sta 4+05 to Sta 117+50	3	Stage AC	Dynamic	11/20/25	12/3/25	10	Q4 2025
400	AC02 C02-214	Sepulveda Blvd	SB SEPULVEDA & 96TH ST	SB	2	2	UNKNOWN	No	Utilities	ATT DUCTBANK 0 Sta 117+50 to Sta 119+50	5	Stage AC	Dynamic	12/4/25	12/11/25	8	Q4 2025
401	AC02 C02-214	Sepulveda Blvd	SB SEPULVEDA PASSING 96TH ST	SB	2	2	UNKNOWN	No	Utilities	ATT DUCTBANK 0 Sta 119+50 to Sta 124+25	14	Stage AC	Dynamic	12/12/25	1/5/26	25	Q1 2026

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/28/2024
DIVISION: M

ID	SEGMENT	STREET	LIMITS OF SEGMENT	DIRECTION	START DATE	END DATE	SHAPEFILE	DTG	CITY	STATE	ZIP	PROJECT	STATUS	START DATE	END DATE	DATE
492	AC02-CU2-212	Sepulveda Blvd	SB SEPULVEDA BETWEEN CENTURY & 56TH ST	SB	2	2	KUNENOWNI	No	US888	ATT DUCTBANK C Sta 114+30 to Sta 118+50	44	Stage AC	Dynamic	7/13/26	9/13/26	45
493	AC02-CU2-212	Sepulveda Blvd	SB SEPULVEDA BETWEEN CENTURY & 56TH ST	SB	2	2	KUNENOWNI	No	US888	ATT DUCTBANK D Sta 118+50 to Sta 127+75	14	Stage AC	Dynamic	7/13/26	4/2/26	14
494	AC02-CU2-212	Sepulveda Blvd	SB SEPULVEDA BETWEEN CENTURY & 56TH ST	SB	2	2	KUNENOWNI	No	US888	ATT DUCTBANK E Sta 127+75 to Sta 167+50	8	Stage AC	Dynamic	7/13/26	4/2/26	14
495	AC02-CU2-212	Sepulveda Blvd	SEPULVEDA & CENTURY	SB	2	2	KUNENOWNI	No	US888	ATT DUCTBANK F MAINLINE TO STA 2+00	10	Stage AC	Dynamic	7/13/26	7/13/26	30
496	AC02-CU2-211	Sepulveda Blvd	SEPULVEDA & CENTURY BLVD INTERSECTION	SB	2	2	KUNENOWNI	No	US888	ATT DUCTBANK F MAINLINE TO STA 3+75	4	Stage AC	Dynamic	7/13/26	7/13/26	37
497	AC02-CU2-212	Sepulveda Blvd	SEPULVEDA & CENTURY BLVD INTERSECTION	SB	2	2	KUNENOWNI	No	US888	ATT DUCTBANK F MAIN LINE TO STA 3+75	3	Stage AC	Dynamic	7/13/26	7/13/26	37

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/25/2024
REVISION: V4

#	SEQUENCE	THUSPINAL	STREET	STREET'S OR PROJECT	CONSTRUCTION	NO. OF CONSTRUCTION CLOSURES	NO. OF CLOSURES	STREETSHOT	DATE	Category	ACTIVITY	NO. OF OCCURRENCES	TYPE OF CLOSURE	STREET/STREET	START/DATE	END/DATE	NO. OF CLOSURES	DATE
408		AC02-CU2-211	Sequoia Blvd	SE PALMVIEW & CENTURY BLVD INTERSECTION	HB	2	2	PLUNKED/WR	No	Utilities	ATT DUCTBANK 2 STA 2-78 TO STA 4-400	2	Stage AC	Dynamic	3/15/25	5/2/26	27	Q1 2025
409		AC02-CU2-212	Sequoia Blvd	SE PALMVIEW & CENTURY BLVD INTERSECTION	HB	2	2	PLUNKED/WR	No	Utilities	ATT DUCTBANK 2 STA 4-400 TO MH	6	Stage AC	Dynamic	3/15/25	5/2/26	27	Q1 2026
410		AC02-CU2-212	Little Calvary	SE PALMVIEW & CENTURY BLVD INTERSECTION	WB	2	2	PLUNKED/WR	No	Utilities	ATT DUCTBANK 2 STA 4-400 TO MH	4	Stage AC	Dynamic	3/15/25	5/2/26	27	Q1 2026
411		AC02-CU2-213	Sequoia Blvd	SB PALMVIEW PASSING CENTURY	SB	1	2	PLUNKED/WR	No	Utilities	ATT DUCTBANK 4 Sta 191-400 to Sta 303-400	18	Stage AC	Dynamic	10/29/25	10/15/25	10	Q4 2025
412		AC02-CU2-210	Sequoia Blvd	SB PALMVIEW PASSING CENTURY	SB	1	2	PLUNKED/WR	Yes	Utilities	ATT DUCTBANK 4 Sta 201-400 to Sta 193-400	10	Stage AC	Dynamic	10/19/25	10/30/25	10	Q4 2025
413		AC02-CU2-211	Sequoia Blvd	SE PALMVIEW & CENTURY BLVD INTERSECTION	SB	2	2	PLUNKED/WR	No	Utilities	ATT DUCTBANK 4 Sta 193-400 to Sta 180-400	22	Stage AC	Dynamic	10/21/25	12/30/25	13	Q4 2025

ATMP Landslide Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/25/2024
REVISION: V4

#	PROJECT NAME	CONTRACT NO.	LOCATION	PROJECT DESCRIPTION	DATE	TIME	STATUS	DESCRIPTION	START DATE	END DATE	ACTIVITY	STAGE	STATUS	START DATE	END DATE	ACTIVITY	STATUS
14	AC02-CU2 213	Sequoia Blvd	SEPULVEDA & CENTURY BLVD INTERSECTION	SB	2	2	UNKNOWN	NO	UNKNOWN	AT&T DITCH	1	Stage AC	Dynamic	12/1/25	7/22/26	17	34 2025
415	AC02-CU2 214	Sequoia Blvd	SEPULVEDA & BETH ST	SB	2	2	UNKNOWN	NO	UNKNOWN	AT&T MAINTENANCE	10	Stage AC	Dynamic	3/3/26	5/5/26	46	31 2026
38	AC02-CU2 214	Sequoia Blvd	SEPULVEDA & BETH ST	SB	2	2	UNKNOWN	NO	UNKNOWN	AT&T PULL & SPICE FINISH	43	Stage AC	Dynamic	7/15/26	6/11/26	41	32 2026
417	AC02-CU2 214	Sequoia Blvd	SEPULVEDA & BETH ST	SB	2	2	UNKNOWN	NO	UNKNOWN	AT&T RESTORATION	33	Stage AC	Dynamic	12/29/25	5/8/26	56	04 2026

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/26/2024
REVISION: 04

#	PROJECT	PROJECT AC	STREET	ADJACENT STREET	FUNCTION	NO. OF CHANGES	NO. OF CHANGES	SNAPSHOT	STATUS	DATE	DESCRIPTION	IMPACT	STAGE	TYPE	START DATE	END DATE	START TIME	END TIME	
416			Sequencia Blvd	Sequencia Blvd	WB / SB	1					Landscape	Tree Removal	Yes	Stage AC-A	Dynamic			0	
416			96th St	96th St	WB / SB	1					Landscape	Tree Removal		Stage AC-A	Dynamic			0	
417			96th St	96th St	WB / SB	1					Landscape	Tree Removal		Stage AC-A	Dynamic			0	
418		CR 132	Century Blvd	East of Midway Blvd Segment A	WB	1	1	UNKNOWN	No		Roadway Improvements - Lamp Paving at Hawk Runby - Close & Open - Frequent - Drainage - Segregate - ADP	30	Stage AC	Dynamic	1/5/20	1/25/20	00	31 2020	
419	R		Center Way	EB on center way, traffic switches over onto segment P for West PG Construction	EB	1	3	UNKNOWN	No	Retaining Wall	WB P-3	41	Stage 0	Static			0		
420	L	CR 132	World Way	Center Way to North World Way	WB	1	1	UNKNOWN	Yes	Retaining Wall	WB L-1	27	Stage 2	Dynamic	3/18/20	5/5/20	07	01 2020	
421	D2	CR 132	Century Blvd	West of Vicksburg, taking lane from active WB segment I	WB	1	1	UNKNOWN	No	Retaining Wall	WB R-2	45	Stage 3	Dynamic	10/27/27	11/20/27	07	02 2027	
422	R	S10-001	Sequencia Blvd	South of Century	WB	1	3	UNKNOWN	No	Columns	Post CBM to east of SB - 62.5% EFF	3	Stage 5	Dynamic			3	01 2020	
423	R	S10-001	Sequencia Blvd	South of Century	SB	1	3	UNKNOWN	No	Columns	Post CBM to east of SB - 62.5% EFF	3	Stage 5	Dynamic			3	01 2020	
424	R	S10-001	Sequencia Blvd	South of Century	WB	2	2	UNKNOWN	No	Columns	Monitor Spoils SB - 62.5% EFF	3	Stage 5	Dynamic			0	03 2020	
425	R	S10-001	Sequencia Blvd	South of Century	SB	2	2	UNKNOWN	No	Columns	Monitor Spoils SB - 62.5% EFF	3	Stage 5	Dynamic			0	01 2020	

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATES:
VERSION:

10/25/2024
04

ID	PROJECT NAME	ADDRESS	SUBJECT	THREATS/IMPACTS	DURATION	NO. OF CLOSURES	NO. OF CLOSURES	THREATS/IMPACTS	STATUS	Category	ACTIVITY	NO. OF OCCURRENCES	PRIORITY RANKING	DURATION/STATUS	START DATE	END DATE	DURATION	START DATE
426	P	510-001	Sequoyia Blvd	South of Century	NO	2	2	RUNKINDWELL	No	Columns	Deadman & Cable Guy Rehab Column Shr - 62.5% EFF	12	Stage 5	Dynamic			0	01/2028
427	P	510-001	Sequoyia Blvd	South of Century	SB	2	2	RUNKINDWELL	No	Columns	Deadman & Cable Guy Rehab Column Shr - 62.5% EFF	12	Stage 5	Dynamic			0	01/2028
428	P	510-001	Sequoyia Blvd	South of Century	NO	2	2	RUNKINDWELL	No	Columns	5" x 5" COLLUMN FORMS Shr - 62.5% EFF	9	Stage 5	Dynamic			0	01/2028
429	P	510-001	Sequoyia Blvd	South of Century	SB	2	2	RUNKINDWELL	No	Columns	5" x 5" COLLUMN FORMS Shr - 62.5% EFF	9	Stage 5	Dynamic			0	01/2028
430	P	510-001	Sequoyia Blvd	South of Century	NO	2	2	RUNKINDWELL	No	Columns	Pipe Columns	3	Stage 5	Dynamic			0	01/2028
431	P	510-001	Sequoyia Blvd	South of Century	SB	2	2	RUNKINDWELL	No	Columns	Pipe Columns	3	Stage 5	Dynamic			0	01/2028
432	P	510-001	Sequoyia Blvd	Between Tule & Century	NO	2	2	RUNKINDWELL	No	Bridge Construction	Have material to & out of staging yard Shr - 62.5% EFF	15	Stage 5	Dynamic			0	01/2028
433	P	510-001	Sequoyia Blvd	South of Century	SB	2	2	RUNKINDWELL	No	Bridge Construction	Have material to & out of staging yard Shr - 62.5% EFF	15	Stage 5	Dynamic			0	01/2028
434	P	510-001	Sequoyia Blvd	Between Tule & Century	NO	FULL	0	RUNKINDWELL	Yes	Bridge Construction	Pipe 5" x 5" & Storm Shr 62.5% EFF	2	Stage 5	Dynamic	6/13/26	6/14/28	2	01/2028
435	P	510-001	Sequoyia Blvd	South of Century	SB	FULL	0	RUNKINDWELL	Yes	Bridge Construction	Pipe 5" x 5" & Storm Shr 62.5% EFF	2	Stage 5	Dynamic	6/13/26	6/14/28	2	01/2028
436	P	510-001	Sequoyia Blvd	South of Century	SB	FULL	0	RUNKINDWELL	Yes	Bridge Construction	5" x 5" Barrier	2	Stage 5	Dynamic			0	01/2028
437	P	510-001	Sequoyia Blvd	South of Century	NO	FULL	0	RUNKINDWELL	Yes	Bridge Construction	5" x 5" Barrier	2	Stage 5	Dynamic			0	01/2028

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA FLATIRON

DATE:
REVISION:

10/26/2024
V4

#	SEQUENCE	PROJECT ID	STREET	LENGTH OF SEGMENT	DIRECTION	NO. OF CLOSED LANES	NO. OF OPEN LANES	STATUS	DATE	Activity	Activity	DATE	DATE	DATE	DATE	DATE	DATE	DATE
438	P	510-001	Sequoyia Blvd	Between Tunnel & Century	WB	FULL	0	#UNKNOWN#	Yes	Bridge Construction	Closure Pour SB 62.5% E/F	1	Stage 5	Dynamic	5/15/20	5/15/20	1	Q2 2020
439	P	510-001	Sequoyia Blvd	South of Century	SB	FULL	0	#UNKNOWN#	Yes	Bridge Construction	Closure Pour SB 62.5% E/F	1	Stage 6	Dynamic	5/15/20	5/15/20	1	Q2 2020
440	P	510-001	Sequoyia Blvd	Between Tunnel & Century	WB	FULL	0	#UNKNOWN#	Yes	Bridge Construction	Form Sidel Closure Pour WB SB 62.5% E/F	4	Stage 6	Dynamic	5/26/20	10/29/20	1	Q1 2021
441	P	510-001	Sequoyia Blvd	South of Century	SB	FULL	0	#UNKNOWN#	Yes	Bridge Construction	Form Sidel Closure Pour SB SB 62.5% E/F	4	Stage 6	Dynamic	5/1/20	5/10/20	4	Q1 2020
442	P	510-001	Sequoyia Blvd	Between Tunnel & Century	WB	FULL	0	#UNKNOWN#	Yes	Bridge Construction	Strip Closure Pour WB SB 62.5% E/F	2	Stage 5	Dynamic	5/26/20	5/26/20	2	Q1 2020
443	P	510-001	Sequoyia Blvd	South of Century	SB	FULL	0	#UNKNOWN#	Yes	Bridge Construction	Strip Closure Pour SB SB 62.5% E/F	2	Stage 6	Dynamic	5/26/20	5/26/20	2	Q1 2020
444	P	510-001	Sequoyia Blvd	South of Century	WB	FULL	0	#UNKNOWN#	Yes	Bridge Construction	Pour Deck SB 62.5% E/F	1	Stage 5	Dynamic	7/17/20	7/17/20	1	Q2 2020
445	P	510-001	Sequoyia Blvd	South of Century	SB	FULL	0	#UNKNOWN#	Yes	Bridge Construction	Pour Deck SB 62.5% E/F	1	Stage 6	Dynamic	7/17/20	7/17/20	1	Q2 2020
446		ACB1-CD1.002 Narrow ACB1-CD1.006	Sequoyia Blvd	Lane in Shoulder Ramp	SB	1	2	#UNKNOWN#	No	Demol	Remove Sidelwalk & Curb Ramp ~700 SQ 1	1						

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE:
REVISION:

10/25/2024
V4

#	REQUEST	SP-RST #	STREET	CONFLICT POINT	INTERSECTION	NO. OF CLOSED LANES	NO. OF OPEN LANES	SNAPSHOT	DATE	Category	ACTIVITY	ESTIMATED DURATION	PROPOSED STAGE	Static or Dynamic	START DATE	END DATE	DETAILED	STATUS
447		ACD1-CD1-482 Through ACD1-CD1-486	Sequoyia Blvd	Sequoyia Ramp to SB St	SB	1	3	UNKNOWN	No	Drain	Remove Sidewalk & Curb Ramp ~5945 SQFT	4						
448		ACD1-CD1-482 Through ACD1-CD1-486	Sequoyia Blvd	Bohannon Lane	NB	1	4	UNKNOWN	No	Drain	Remove Sidewalk & Curb Ramp ~6803 SQFT	5						
449		SC-2	Sequoyia Blvd	Lincoln to WB St	SB	2	3	UNKNOWN	No	Drain	Temp Widening of Sep SB W/overhead Relocation, Drain, Paving		Stage AD	Static	12/18/24	12/18/25	23	
450		ACD1-CD1-488 Through ACD1-CD1-488	Sequoyia Blvd	98th St to 100th St	WB	1	1	UNKNOWN	No	Drain	Remove Sidewalk & Curb Ramp ~4965 SQFT	3						
451		ACD1-CD1-470	Sequoyia Blvd	Sequoyia & Century Intersection	WB	1	3	UNKNOWN	No	Drain	Remove Sidewalk & Curb Ramp ~4445 SQFT	1						
452		ACD1-CD1-470 Through ACD1-CD1-471	Sequoyia Blvd	Sequoyia & Century Intersection	SB	1	3	UNKNOWN	No	Drain	Remove Sidewalk & Curb Ramp ~4134 SQFT	2						
453		ACD1-CD1-434 Through ACD1-CD1-435	Center Way	West of Center Way & World Way	SB	1	2	UNKNOWN	No	Drain	Remove Sidewalk & Curb Ramp ~2501 SQFT	2						
454		ACD1-CD1-434 ACD1-CD1-435	World Way	Center Way to N World Way Connection	WB	1	1	UNKNOWN	No	Drain	Remove Sidewalk & Curb Ramp ~4001 SQFT	3						
455		ACD1-CD1-433 ACD1-CD1-440	World Way	Lower DWW to SB Sequoyia Ramp	SB	1	1	UNKNOWN	No	Drain	Remove Sidewalk & Curb Ramp ~3983 SQFT	2						
457		ACD1-CD1-465 Through ACD1-CD1-470	Sequoyia Blvd	10th St to Century	NB	2	3	UNKNOWN	No	Drain	Remove Curb & Gutter ~1315 FT	3	Stage 2	Static				
458		ACD1-CD1-479 Through ACD1-CD1-479	Sequoyia Blvd	Century to SB Century Ramp	SB	1	2	UNKNOWN	No	Drain	Remove Curb & Gutter ~733 FT	4	Stage 4	Static				

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/28/2024
ATTENTION: JF

#	CONTRACT	STREET	LIMITS OF IMPROVEMENT	DIRECTION	NO. OF LANE CHANGES	NO. OF TRUCKS	SNAPSHOT	DETOUR	Category	SECURITY	VIOLATION OCCURRENCES	VIOLATION SEVERITY	STATUS OF DEVIATION	START DATE	END DATE	PERMIT	WEEKLY QTR
459	AC01-CD1-902 Through AC01-CD1-916	Sequoia Blvd	EB Century Ramp to Tunnel	SB	2	1	UNKNOWN	Yes	Detour	Detour Curb & Center - 100 FT	7						
460	AC01-CD1-912 Through AC01-CD1-914	Sequoia Blvd	Tunnel to EB Century to NB Sep Ramp	NB	1	2	UNKNOWN	No	Detour	Detour Curb & Center - 400 FT	3						
461	AC01-CD1-916 Through AC01-CD1-912	Sequoia Blvd	EB Century to EB Century to Victoria	EB	1	3	UNKNOWN	Yes	Detour	Detour Curb & Center - 1200 FT	4						
462	AC01-CD1-906 Through AC01-CD1-906	Sequoia Blvd	NB Sep Ramp 90th St to 90th St	NB	1	3	UNKNOWN	No	Detour	Detour Curb & Center - 400 FT	2						
463	AC01-CD1-903 Through AC01-CD1-906	Sequoia Blvd	NB Sep Ramp 90th St to Lincoln	NB	2	3	UNKNOWN	Yes	Detour	Detour Curb & Center - 400 FT	3						
464	AC01-CD1-909 Through AC01-CD1-923	Little Century	Victoria to Sequoia	WB	1	1	UNKNOWN	No	Detour	Detour Curb & Center - 100 FT	7						
465	AC01-CD1-923 Through AC01-CD1-921	Century Blvd	Ramp to Departure from WB Century	WB	1	1	UNKNOWN	No	Detour	Detour Curb & Center - 400 FT	2						
466	AC01-CD1-925 Through AC01-CD1-921	Century Blvd	Ramp to Departure from WB Century	WB	1	1	UNKNOWN	No	Detour	Detour Curb & Center - 125 FT	2						
467	AC01-CD1-916 Through AC01-CD1-917	90th St	Sequoia to Victoria	SB	1	2	UNKNOWN	No	Detour	Detour Curb & Center - 500 FT	2						
468	AC01-CD1-916 Through AC01-CD1-916	90th St	Sequoia to Victoria	WB	1	1	UNKNOWN	No	Detour	Detour Curb & Center - 400 FT	2						
469	AC01-CD1-942 Through AC01-CD1-943	90th St	Victoria to Sep Ramp	SB	1	1	UNKNOWN	No	Detour	Detour Curb & Center - 500 FT	2						
470	AC01-CD1-942 Through AC01-CD1-943	90th St	Victoria to Sep Ramp	EB	1	1	UNKNOWN	No	Detour	Detour Curb & Center - 400 FT	4						

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/25/2024
REVISED: V6

P	ACCOMPLISH	SHEET NO.	STREET	TIMES OF OPERATION	DIRECTION	NO. OF CLOSURES	NO. OF LANE CLOSURES	SNAPSHOT	CLOSURE	Category	ACTIVITY	NO. OF OCCURRENCES	PROJECT ACROSS	TRAFFIC CONTROL	START DATE	END DATE	DURATION	NO. OF DAYS
471		AC01-CD1-042 Through AC01-CD1-044	50th St	Vicksburg to Jersey	WB	3	1	UNKNOWN	No	Demolition	Demolish Curb & Gutter ~402 FT	3						
472		AC01-CD1-047 Through AC01-CD1-044	50th St	Vicksburg to Jersey	WB	3	1	UNKNOWN	No	Demolition	Remove Sidewalk & Curb Ramp ~3175 SQFT	3						
473		AC01-CD1-048	50th St	Vicksburg to Jersey	WB	3	1	UNKNOWN	No	Demolition	Demolish Curb & Gutter ~115 FT	4						
474		AC01-CD1-049	50th St	Vicksburg to Jersey	WB	3	1	UNKNOWN	No	Demolition	Remove Sidewalk & Curb Ramp ~771 SQFT	4						
475		AC01-CD1-051	50th St	Vicksburg to Jersey	WB	3	1	UNKNOWN	No	Demolition	Demolish Curb & Gutter ~27 FT	1						
476		AC01-CD1-053	50th St	Vicksburg to Jersey	WB	3	1	UNKNOWN	No	Demolition	Remove Sidewalk & Curb Ramp ~361 SQFT	3						
477		AC05-CD1-045	Vicksburg Ave	56th St to 58th St	SB	1	1	UNKNOWN	No	Demolition	Demolish Curb & Gutter ~165 FT	3						
478		AC05-CD1-046	Vicksburg Ave	56th St to 58th St	SB	1	1	UNKNOWN	No	Demolition	Remove Sidewalk & Curb Ramp ~1265 SQFT	3						
479		AC05-CD1-048	Vicksburg Ave	56th St to 58th St	SB	1	1	UNKNOWN	No	Demolition	Demolish Curb & Gutter ~132 FT	1						
480		AC05-CD1-049	Vicksburg Ave	56th St to 58th St	SB	1	1	UNKNOWN	No	Demolition	Remove Sidewalk & Curb Ramp ~1336 SQFT	1						
481		AC01-CD1-054 Through AC01-CD1-019	Jersey	58th to Century	SB	3	1	UNKNOWN	No	Demolition	Remove Sidewalk & Curb Ramp ~3195 SQFT	3						
482		AC01-CD1-005 Through AC01-CD1-006	Seaside Blvd	Lincoln to 56th St	SB	1	2	UNKNOWN	No	Demolition	Remove Concrete Barrier 126 FT	2					0	

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/26/2024
REVISION: V4

#	SECTION	SEQUENCE	STREET	IMPROVEMENT	DIRECTION	REL. TO EXISTING	NO. OF LANES	SNAPSHOT	STATUS	Category	ADDITIONAL	REMARKS	SEQUENCE	START DATE	END DATE	STATUS	DATE
463		AC01-CD1-005 Through AC01-CD1-006	Sequoyia Blvd	Access to SR161	WB	1	3	UNKNOWN	No	Demol	Remove Concrete Barrier +100 FT	2					
464		AC01-CD1-007 Through AC01-CD1-008	Sequoyia Blvd	Access to SR161	SB	1	3	UNKNOWN	No	Demol	Remove Concrete Barrier +100 FT	4	Stage 2	Static			
465		AC01-CD1-007 Through AC01-CD1-009	Sequoyia Blvd	Access to SR161	WB	1	3	UNKNOWN	No	Demol	Remove Concrete Barrier +100 FT	4	Stage 2	Static			
466		AC01-CD1-001 Through AC01-CD1-003	Sequoyia Blvd	Century to Turnoff	SB	1	2	UNKNOWN	No	Demol	Remove Concrete Barrier +100 FT	4					
467		AC01-CD1-011 Through AC01-CD1-013	Sequoyia Blvd	Century to Turnoff	WB	1	2	UNKNOWN	No	Demol	Remove Concrete Barrier +100 FT	4					
468		AC01-CD1-022	Century Blvd	Access Ramp	WB	1	1	UNKNOWN	No	Demol	Remove Concrete Barrier +100 FT	2					
469		AC01-CD1-022	Century Blvd	WB Century to Departure Ramp	WB	1	1	UNKNOWN	No	Demol	Remove Retaining Wall					0	
470		AC01-CD1-013 Through AC01-CD1-014	Sequoyia Blvd	HWY 161/162 TO SR 161/162 RAMP	WB	1	2	UNKNOWN	Yes	Demol	Remove Retaining Wall						
481		AC01-CD1-013 Through AC01-CD1-014	Sequoyia Blvd	Access South Westway to SR Century	WB	2	1	UNKNOWN	Yes	Demol	Remove Retaining Wall						
492		AC01-CD1-021 Through AC01-CD1-026	Century Way	Access South Westway to Departure Ramp	WB	1	1	UNKNOWN	Yes	Demol	Remove Retaining Wall						
493		AC01-CD1-006	Sequoyia Blvd	SB Sequoyia to Skyway Ramp	SB	1	4	UNKNOWN	Yes	Demol	Remove Retaining Wall						

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#	ELEMENT	PREF. NO.	TYPE	OFFSHORE	WIND CLASS	STATUS	COMPLETION	DESCRIPTION	STATUS	Category	ACTIVITY	DATE		INSTALLATION	STATUS	WIND CLASS	WIND DATE	WIND DATE	WIND DATE	WIND DATE
												NO. OF OCCURRENCES	WIND CLASS							
577		500-221	Century Blvd	Repairs to 18 Century ramp / 40 Sepulveda to 18 Century ramp	18	Yes	0	18 Century ramp	No	Drillbit	Line A1 LINE/SE JACK & BONE	24	Stage AC	Dynamic	10/0/25	11/0/25	24	04 2025		
578		AC10-LAWOP	Sepulveda Blvd	Cellular to 98th St	50	3	2	18 Century ramp	No	Utilities	LAWOP Water Lines Relocation Hydrant 1	19	Stage AC	Dynamic	11/0/25	12/0/25	20	04 2025		
579		AC10-LAWOP	Sepulveda Blvd	Century to 98th St	50	2	2	18 Century ramp	No	Utilities	LAWOP Water Lines Relocation Hydrant Recorder	20	Stage AC	Dynamic			0	04 2025		
579		AC10-LAWOP	Sepulveda Blvd	Century to 98th St	50	2	2	18 Century ramp	No	Utilities	LAWOP Water Lines Relocation DWPFS Valve	20	Stage AC	Dynamic			0	01 2026		
579		AC10-LAWOP	Sepulveda Blvd	Century to 98th St	50	2	2	18 Century ramp	No	Utilities	LAWOP Water Lines Relocation Flare Out	20	Stage AC	Dynamic			0	01 2026		
580										Readily Implementable	Water Concrete Interaction Outfit (ITP)	0		Dynamic			0			

ATMP Landslide Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE:
REVISION:

10/28/2024
V6

ID	ADDITIONAL	SHEET NO.	STREET	LINES OF SCENE	DIRECTION	NO. OF CLOSED LANES	NO. OF CLOSED LANES	SHAPEPOINT	DATE	REASON	ADDITIONAL	DATE	STAGE	STAGE	START DATE	END DATE	STATUS	START DATE
581		AC02-SC0	Sequoia Blvd	Century to 60th St	NS	1	3	UNKNOWN	No	UNKNOWN	SOG Removal -500 LF	20	Stage AC	Dynamic			5	
602		AC00 SHELL	Century Blvd	Vicksburg to Artery	SB	2	1	UNKNOWN	No	UNKNOWN	SHELL Full Lvr 150 LF	15	Stage AC	Dynamic			0	
592		AC02 SHELL	Century Blvd	Vicksburg to Sequoia	WB	1	1	UNKNOWN	No	UNKNOWN	SHELL Full Lvr 420 LF	10	Stage AC	Dynamic			0	
582		AC02 SHELL	Sequoia Blvd	Century to 60th St	SB	2	2	UNKNOWN	No	UNKNOWN	SHELL Full Lvr 800 LF	10	Stage AC	Dynamic			0	
583		AC02-C02-430	Vicksburg Ave	87th St to 90th St	SB	1	1	UNKNOWN	No	UNKNOWN	CROWN CASTLE INSTALL CONDUIT & PULL BOXES	25	Stage AC	Dynamic	2/2/20	3/10/26	27	Q1 2026
584		AC02-C02-210	Vicksburg Ave	80th St to 88th St	SB	1	1	UNKNOWN	No	UNKNOWN	Spectrum VS POLY 30 STA 2-75	7	Stage AC	Dynamic	1/5/20	1/13/26	7	Q1 2026

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE: 10/25/2024
REVISION: 04

LINE NO.	LOCATION	SHEET NO.	STREET	LANE OF IMPROVEMENT	DIRECTION	PHASE	STATUS	SHAPE/NOT	DEVELOP	Category	ACTIVITY	VELOCITY / PROPOSED SPEED	PROPOSED STAGE	Static or Dynamic	START DATE	END DATE	DEVELOPER	START QTR
950		AD02-CU2-310	Vicksburg Ave	Down State 90th St	SB	Full	3	UNKNOWN	Yes	Utilities	Spectrum ACROSS VICKSBURG	2	Stage AC	Dynamic	1/14/20	1/15/20	2	Q1 2026
980		DUG3-CU1-919	Century Blvd	Vicksburg to Jersey	EB	2	2	UNKNOWN	No	Drainage	South Side Cul-de-sac existing RCP Paving existing structure	10	Stage 0	Dynamic			0	Q3 2027
980		DUG3-CU1-920	Century Blvd	Vicksburg to Jersey	EB	2	2	UNKNOWN	No	Drainage	North Side Cul-de-sac existing RCP Install new 24" RCP	10	Stage 0	Dynamic			0	Q1 2027
988		AD01-CU1-101A	Sequoia Blvd	Sequoia to Vicksburg	NB	Full	0	UNKNOWN	Yes	HOV	#2 Construction	Permanent	Stage AC	Static			0	
989			South St	Sequoia to Highway	WB	Full	0	UNKNOWN	Yes	HOV	Sequoia widening	Permanent	Stage AC	Static			0	
990			Century Blvd	Vicksburg to Jersey	EB	2	2	UNKNOWN	Yes	Temp Paving	WB Traffic Crossover		Stage AC	Static			0	
991		UR01-CU2-214	Sequoia Blvd	North of 90th St	SB	5	4	UNKNOWN	No	Utilities	AT&T			Dynamic			0	

ATMP Landside Improvements Project
TRAFFIC MANAGEMENT SUMMARY

SKANSKA | FLATIRON

DATE
REVISION

10/28/2024
V4

Table 1: Summary of the 2023-2024 Season																
ID	Team	Player	Position	Age	Statistics			Status	Performance		Notes	Overall Rating	Team Rating	League Rating	Player Rating	Team Rating
					Points	Rebounds	Assists		Points per Game	Rebounds per Game						
101	Team A	John Doe	Forward	25	15	5	3	Good	85	80	82	85	80	82	85	80
102	Team A	Jane Smith	Guard	23	12	4	2	Good	80	75	78	80	75	78	80	75
103	Team B	Mike Johnson	Center	28	20	8	4	Good	90	85	88	90	85	88	90	85
104	Team B	Sarah Lee	Guard	22	10	3	1	Good	75	70	72	75	70	72	75	70
105	Team C	David Brown	Forward	26	18	6	3	Good	88	83	86	88	83	86	88	83
106	Team C	Emily White	Guard	24	14	5	2	Good	82	77	80	82	77	80	82	77
107	Team D	Chris Green	Center	27	19	7	3	Good	87	82	85	87	82	85	87	82
108	Team D	Alice Black	Guard	21	11	4	1	Good	78	73	76	78	73	76	78	73
109	Team E	Bob Gray	Forward	29	22	9	5	Good	92	87	90	92	87	90	92	87
110	Team E	Charlie Blue	Guard	23	13	5	2	Good	81	76	79	81	76	79	81	76

Appendix 3 – Construction Area Access, Phasing and Logistics Plan (PR-03)



Construction Area Access, Phasing and Logistics Plan

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Skanska-Flatiron Joint Venture **ATMP Construction Area Access Phasing and Logistics Plan**

Contents

1.0	Construction And Logistics Management	3
2.0	Pedestrian Safety	3
3.0	Project Constraints.....	3
4.0	Construction Work Hours.....	4
5.0	Site Office Facilities and Storage Yard Facilities	4
6.0	Construction Site Security.....	6
7.0	Traffic Management	6
8.0	Construction Parking.....	7
9.0	Dust Control and Street Sweeping	7
10.0	Construction Equipment Operation and Maintenance.....	7
11.0	Hazardous Materials Controls.....	8
12.0	Site Drainage and SWPPP.....	8
13.0	RECYCLING AND SOLID RESOURCES MANAGEMENT	8
14.0	Crane Use and Constraints (FAA Approvals)	8
15.0	Site and Material Management	9

1.0 Construction And Logistics Management

This Plan includes a general approach to the planned operational impacts, mitigation strategies, proposed implementation and contingency plans in accordance with PR-1.3.C.4.f. SFJV will provide a complete LAWA Impact Request (LIR), Area Shutdown Requests (ASR) and or Utility Shutdown Requests (USR) to LAWA's Construction and Logistics Management (CALM) Team and/or LAWA's Shutdown Control Center (SCC) at least 30 days prior to any planned area and/or utility shutdown(s). (PR-03)

SFJV will work closely with LAWA's CALM group throughout all stages of the project to ensure that all CALM and LAWA requirements are fulfilled and properly coordinated with stakeholders.

SFJV will attend the LIR Workshops and the CALM weekly roadway coordination meeting to discuss and coordinate any potential roadway or lane closures prior to submitting an Area Shutdown Request (ASR), Utility Shutdown Request (USR), or LAWA Impact Request (LIR). SFJV, or designated Subcontractor representative, will also attend the CALM nightly huddle as appropriate but minimally on the night of any closure to discuss the safety risks and operational impacts of the closure and the plans and procedures to mitigate those risks and impacts.

2.0 Pedestrian Safety

Entry and exit access for pedestrians will be maintained. Easy, simple wayfinding strategies will be applied. Barricades will be provided for wayfinding delineation when pedestrian walkways are routed through work zone areas. Overhead canopies will be provided for pedestrian protection where pedestrian walkways are located below over head bridge construction work zone areas.

For each Construction work package, prior to taking possession of an ASR/LIR work zone, SFJV will submit to LAWA the proposed Plan for pedestrian traffic circulation, including the location and types of signs to be used. SFJV will submit revised plans to LAWA for Subsequent changes in construction staging and work zone configurations. Sign panels for construction wayfinding will be provided by the LAWA CALM Sign Shop. The CALM Sign Shop signage provides program wide consistency and follows LAWA wayfinding standards. The LAWA CALM sign shop provides quick production of sign panels, typically in less than 72 hours from time of request.

Safe and adequate pedestrian access will be provided and maintained to fire hydrants, commercial and industrial establishments, parking lots, and hotels. Access to these facilities will be continuous and unobstructed unless otherwise approved by LAWA or AHJ permit.

3.0 Project Constraints

There are many substantial project constraints including:

- Interfacing Projects,
 - Concourse Zero
 - Taxiway D & E
 - Terminal 9

- ATSAC Hub Relocation
- Other Airfield improvements
- Other LAWA Enabling Projects
- Geographic Site Constraints,
 - Limited Staging and Logistics area for material recurring and handling adjacent to work zones.
 - Limited Construction Craft Employee Parking within PLA walking distance limits
- Work Schedule Constraints,
 - Restricted work hours due to Airport Operations, AHJ requirements, and municipal ordinances.
 - Weather events
 - Traffic Closure Moratorium Restrictions (LAWA and City of LA Seasonal Holidays, FIFA 2026, Superbowl 2027, Olympic Games 2028)
 - Existing levels of traffic volume/congestion
 - Operation/activities of adjacent third-party properties/businesses.

With some variation of response time depending on urgency, location, and interfacing party, SFJV will respond promptly to remove or relocate equipment if there is a conflict with vehicle traffic, interfacing LAWA operations, or interfacing projects.

4.0 Construction Work Hours

Regular daytime work shift in accordance with the PLA, SFJV will establish a uniform craft work shift Mondays through Fridays, starting at 6:00 a.m. and ending at 2:30 p.m. This will include 8 hours of regular time work, as well as required meal and rest periods. The start time of the regular work shift may be adjusted to optimize daylight hours and avoid periods of extreme high temperatures. LAWA will be notified in advance of any planned changes in the standard work shift.

If off-site parking for craft employees is needed, additional overtime periods will be necessary for the duration of craft shuttle operation before and after the regular work shift.

SFJV anticipates that a substantial volume of scheduled work will need to be performed outside of the regular daytime work shift hours. These special shifts will include night-time and weekend work hours. This will be due to the work constraints of ASR/LIRs, interfacing projects, and AHJ permits. SFJV assures compliance with ASR/LIR provisions to mitigate impacts to LAWA tenants and third party stakeholders.

5.0 Site Office Facilities and Storage Yard Facilities

SFJV anticipates that LAWA will make an effort to provide potential sites/parcels for ATMP Roadways project use in accordance with Contract Section PR-06. It is also anticipated that the area needed for the ATMP Roadways project may exceed the area that LAWA has available at the time of Construction. SFJV will collaborate with LAWA to determine the most cost-effective means to meet the project needs for laydown areas based on each phase, scope elements, and schedule.

SFJV will provide a construction field office in the ATMP staging and laydown area for LAWA's sole use as required by Contract Section PR-06. SFJV will also prefer to have a construction project management field office located within the staging and laydown area site.

Other anticipated construction support logistics temporary building/enclosures include a safety training/meeting venue, equipment management field office, subcontractor field offices, and material receiving/warehouse facility.

SFJV will request Laydown space through LAWA's Coordination and Logistics Management (CALM) team to rent LAWA properties as provided for by Contract Section PR-06. The following is an anticipated breakdown of the various areas needed:

ATMP - Staging/Laydown Yard & Field Office Area Needed	Yard Area (SF)	Field Office Area (SF)
Craft Parking SFJV & Subcontractors, 350 s.f./vehicle x 500	175,000	
Field Management/Supervision Office	15,000	12,000
QC & AHJ Inspection Parking, 350 s.f./vehicle x 50	17,500	
Security Staff/Supervision Field Office	18,000	1,440
Equipment maintenance support field shop/office facility	60,000	1,440
Temporary Sanitary Facility - Service Area, restroom/wash station, 6.4 s.f./person	3,840	
Waste Disposal & Recycling Area, roll-off bin staging area & truck access	30,000	
Material Receiving Inspection, Distribution, & Warehouse	174,240	1,440
Safety Training Facility (& Parking, 350 s.f./vehicle x 100	35,000	4,320
Local Hire Recruitment/Intake facility (& Parking, 350 s.f./vehicle x 20)	7,000	1,440
Traffic Control Staging Yard	108,900	1,440
Falsework Staging/Storage/Fab Yard	435,600	
Formwork & Structure Hardware Staging Yard	54,450	
Underground Pipe/Civil/Shoring Materials Staging Yard	54,450	
Central Truck Delivery Staging/Vehicle Escort Staging Area	20,000	
CIDH Equipment, Casing, Tooling staging yard	87,120	
Reinforcing staging & cage fabrication Area	87,120	
P.T. Materials Staging Area	25,000	

Electrical/Signs Staging Area	50,000	
Demo/Rubble Stockpile & Crushing Area	50,000	
Concrete Batch Plant Area	50,000	
Total:	1,558,220	23,520

6.0 Construction Site Security

SFJV anticipates very minimal construction within Airside security restricted areas. For this minimal Airside work, SFJV will comply with LAWA, FAA, and TSA security requirements. The majority of the ATMP Roadways work will be performed landside.

SFJV will install, protect, and maintain any new and existing security fencing in established construction area work zones and in the vicinity of our logistics yards. SFJV's construction logistics and work area yards will have at least one gate for site access. Gated openings in the security fence to major yards will be supervised by a security guard, flagger, or craft watch person when open for access during construction hours. Gates for intermittent access will be closed except when needed for entry and must be locked when the site is not active. SFJV will work with LAWA to optimize the security requirements to balance security needs with the project budget to ensure a safe and efficient project.

SFJV will provide night security lighting at secured areas within construction limits at offices, storage facilities, temporary facilities, and excavated areas as agreed to and authorized by LAWA.

Some active construction work zones will be located in public roadways or other areas that will need to remain accessible to the public. These areas will not be conducive to perimeter security fencing but will have temporary warning signs, barricades, and/or flaggers as required by the ASR/LIR. SFJV will work with LAWA's CALM team to determine any other security measures that are needed and will implement them as needed throughout the project.

SFJV will work with LAWA's CALM team to determine any other security measures that are needed and will implement them as needed throughout the project.

7.0 Traffic Management

This section describes SFJV's approach to Construction traffic management. For staging and maintenance of public traffic, refer to the Project Traffic Management Plan. The Traffic Management Plan will be prepared in collaboration with LAWA, LADOT, Caltrans, LAXPD, and LAPD. The plan will be submitted for approval and permitted by AHJs including LADOT and Caltrans.

For construction traffic management, SFJV will identify potential construction truck haul routes and principal pedestrian access routes for craft workforce access to the work zones. Haul route maps are included with the Traffic Management Plan section of this Project Management Plan. SFJV's construction traffic management will comply with the LAWA/CALM ASR/LIR requirements for delivery hours, and moratoriums for seasonal/special events.

8.0 Construction Parking

SFJV's anticipated construction employee parking areas are shown on staging and logistics plans included with this Plan. SFJV anticipates approximately five hundred parking spaces will be needed for staff/craft employees when construction reaches the peak number of employees working on-site. If sufficient LAWA property is not available to meet the needed parking capacity then commercial/private parking lots and/or existing shuttle services, may be used. If SFJV uses shuttle buses, they will operate from the designated employee parking areas to the work sites. SFJV will plan for all employees, including those of subcontractors, vendors, suppliers, etc. at all tiers, park in the designated parking locations and not on city streets, nor in nearby neighborhoods. All construction personnel will be required to attend an airport project-specific orientation meeting that will cover where to park, where staging areas are located, construction policies, etc. Instructions regarding how to obtain parking permit hang-tags or sticker/decals will be provided at on-boarding orientation.

9.0 Dust Control and Street Sweeping

Dust Control measures will be provided by SFJV per Contract Air Pollution Control Requirements. SFJV will provide at least one (1) water truck to maintain dust control and cleaning of pavements affected by SFJV operations. Details of dust control measures are included in the Environmental Monitoring and Controls Plan.

As required by the Contract, SFJV will keep available at the job site, at all times, a minimum of three (3) self-loading operational vacuum motor sweepers, ELGIN Broom Bear, or LAWA-approved equivalent to maintain cleaning of pavements affected by SFJV operations. DESIGN-BUILDER shall use this equipment as needed to keep pavement areas swept clean of debris, to the satisfaction of LAWA.

10.0 Construction Equipment Operation and Maintenance

SFJV anticipates utilizing various units of construction equipment throughout the period of construction performance. This equipment includes:

- Vehicles for field supervision staff (SUVs and light pick-ups)
- Site maintenance equipment (street sweeper, flat-bed truck, telescopic forklift, light towers)
- Traffic Control equipment, (traffic control trucks, attenuator trucks, flashing arrow signs, portable messages signs, lane striping trucks)
- Demolition equipment (jet/vac trucks, pulverizers, cold planer/grinders, excavator/breakers, backhoe/breakers, diamond/abrasive saws, track loaders, dump trucks)
- Excavation and grading equipment (backhoes, excavators, skip loaders, loaders, scrapers, motor graders, vibratory compaction rollers, dump trucks, water trucks)
- Shoring equipment (rotary drills, vibratory pile drivers, welders)
- Foundation Pile equipment (Large cranes with oscillators, concrete pumps, and loaders)
- Structure, Bridge/Retaining Wall Support equipment (mobile cranes, telescopic forklifts, boom lifts, concrete pumps, bridge deck finishers, portable welders, generators, air compressors, abrasive blasters)
- Asphalt paving equipment (asphalt placers, material transfer machines, vibratory compaction rollers)
- Electrical support equipment (boom trucks, bucket trucks, cable reel pullers/dollies)

SFJV equipment for self-work will remain on-site for longer durations, subcontractor equipment will move in/out as needed during various stages of the work. Equipment will be serviced and maintained on-site. Equipment or mechanical components will be removed and transported off-site for major repairs. SFJV anticipates the establishment of an equipment maintenance facility to stage and service equipment as well as, provide a field office for the equipment management staff.

11.0 Hazardous Materials Controls

Details of hazardous materials control measures are included in the Environmental Monitoring and Controls Plan. SFJV does not anticipate a significant volume of hazardous materials that will warrant a specific, dedicated hazardous materials storage and handling yard.

Hazardous and contaminated soil and asbestos-containing material that may be encountered during construction have not been identified in the Contract documents and are not included as part of the SFJV's base scope of work. The LAWA Contract allowance may be utilized for the procurement of additional staging yards/facilities for storage, testing, and monitoring of hazardous materials.

12.0 Site Drainage and SWPPP

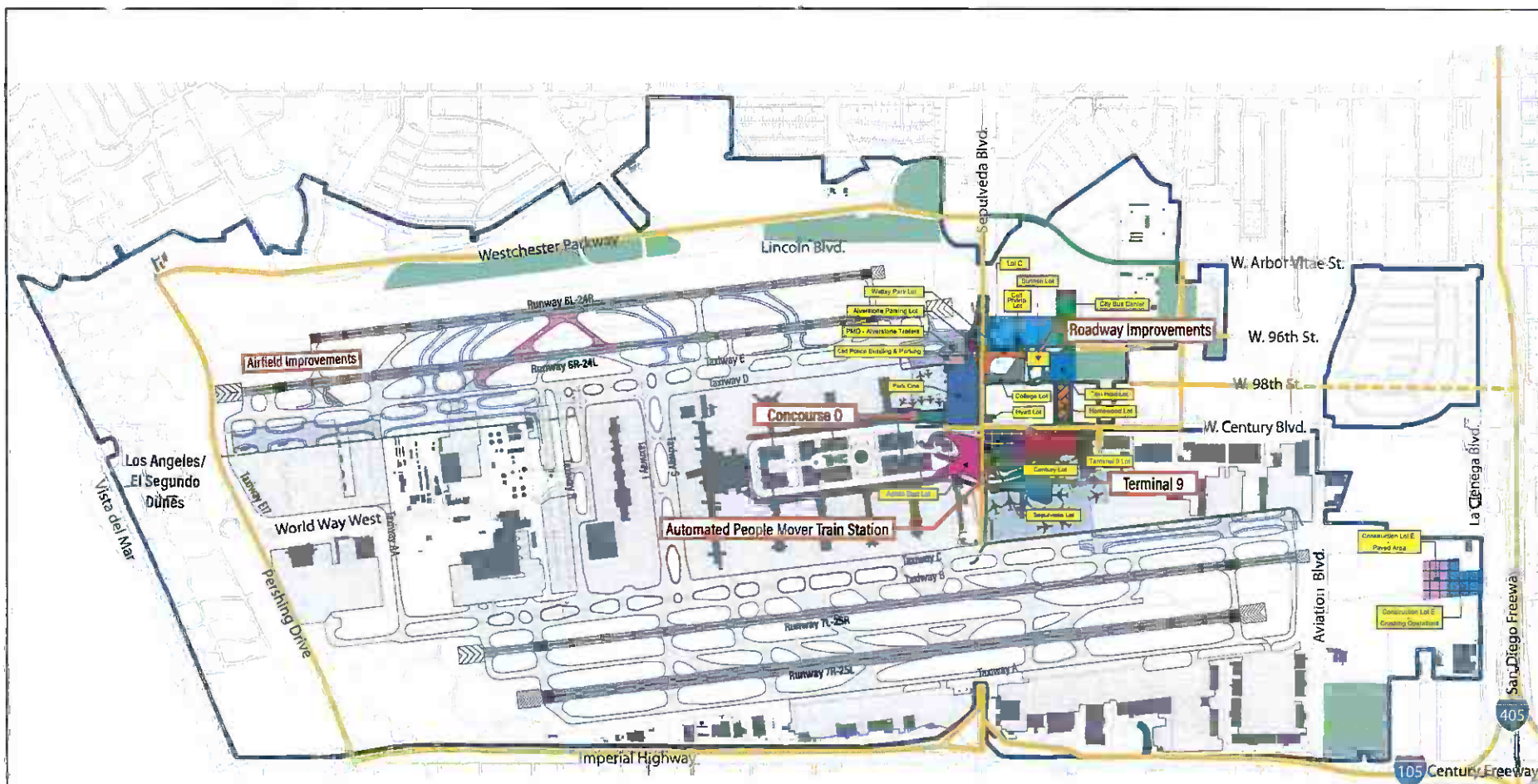
Details of temporary site drainage and water pollution control measures will be included in the Environmental Monitoring and Controls Plan. As part of the scope of a subsequent task order and prior to construction, SFJV will provide a drainage control plan included in the Environmental Monitoring and Control Plan. SFJV will provide temporary methods to allow for drainage during construction phases. The location and type of temporary drainage facilities will be identified in subsequent design development.

13.0 RECYCLING AND SOLID RESOURCES MANAGEMENT

SFJV has identified anticipated locations for placing roll-off container vessels, bins, and dumpsters. These locations will provide for segregated recyclable materials and general solid waste. Demolished concrete and asphalt will be stockpiled at the crusher site. General solid waste trash, wood, and green waste will be located at an adequate distance from the crusher site to separate these facilities and to reduce the risk of contamination. In compliance with Contract environmental requirements, SFJV will implement methods to recycle a minimum of 85% of waste materials generated during construction. The largest portion of recycled material will be excavated soil, demolished concrete/asphalt, steel, and green waste. Details of temporary solid waste management will be included in the Environmental Monitoring and Controls Plan. SFJV will Limit the height of the material stockpiles.{

14.0 Crane Use and Constraints (FAA Approvals)

SFJV plans to use a variety of mobile cranes and concrete pumps for shoring, foundation piles, and bridge construction. The location of mobile cranes and concrete pumps will be changing frequently but the cranes will be located within planned work zones and permitted as required by FAA requirements(and LAWA Air Operations requirements. SFJV will Limit the height of mobile cranes and concrete pumps in conformance with approved FAA Airspace Determinations (7460).



*REFERENCE ATTACHED PAGE FOR
PARCEL SQUARE FOOTAGE



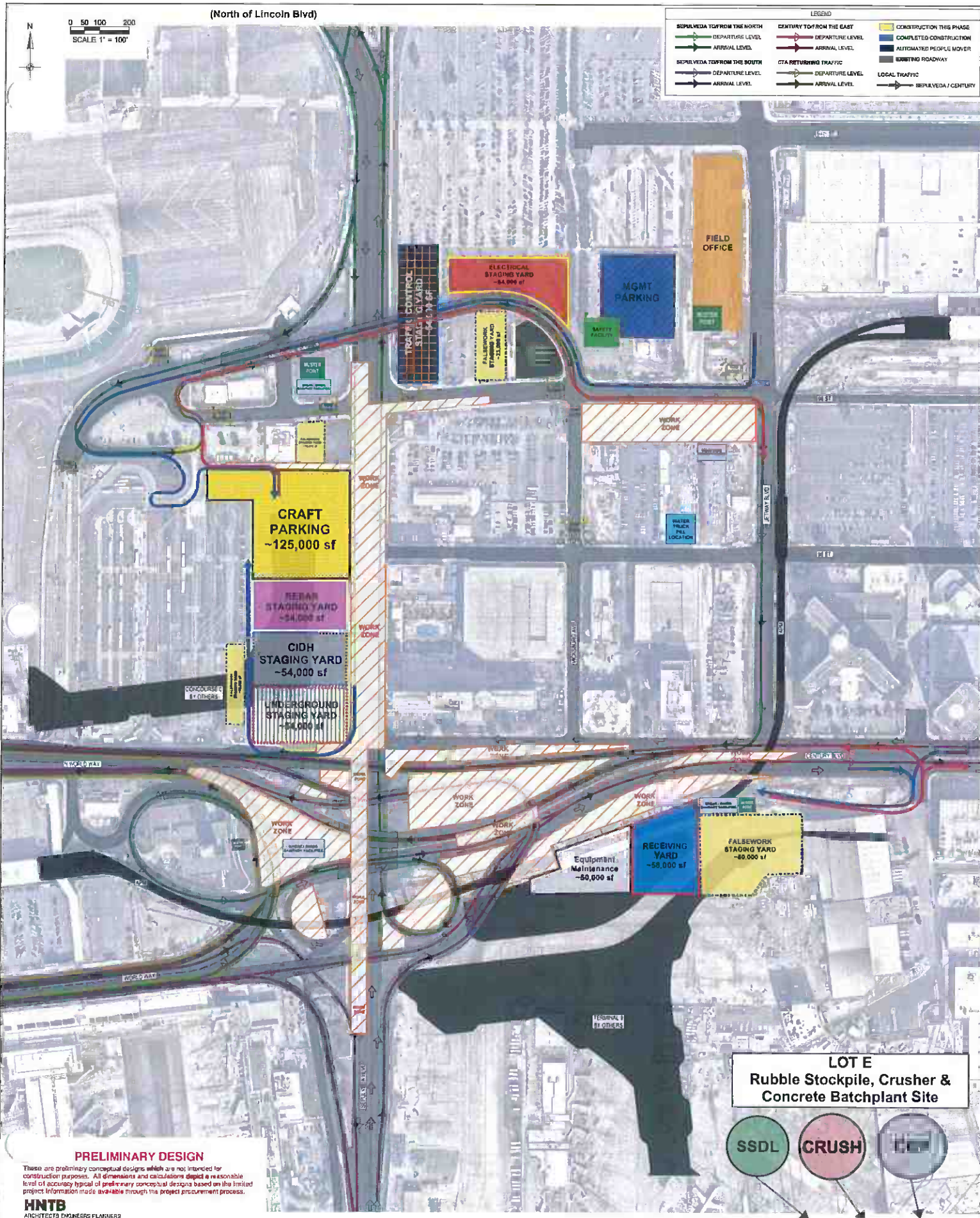
Sources: Ricondo & Associates, Inc., April 2020 (basemap); Los Angeles World Airports, January 2020 (Airport Layout Plan); CDM Smith, April 2020 (Airport Property Line); Ricondo & Associates, Inc., October 2018 (Project Elements); CF Wright Consulting, July 2020 (Roadway Elements)

Prepared by: CDM Smith, September 2020

Legend

- | | |
|---|---|
| LAX Property Boundary | Potential Construction Staging Areas |
| Airfield Improvements | Construction Haul Routes |
| Terminal and Related Improvements | Future LAX Landside Access Modernization Program I-405 Connection |
| Taxiway to be Removed or Decommissioned | Alternate Construction Haul Route |
| Vehicle Service Road | |
| Roadway Improvements | |
| Roadway to be Demolished | |

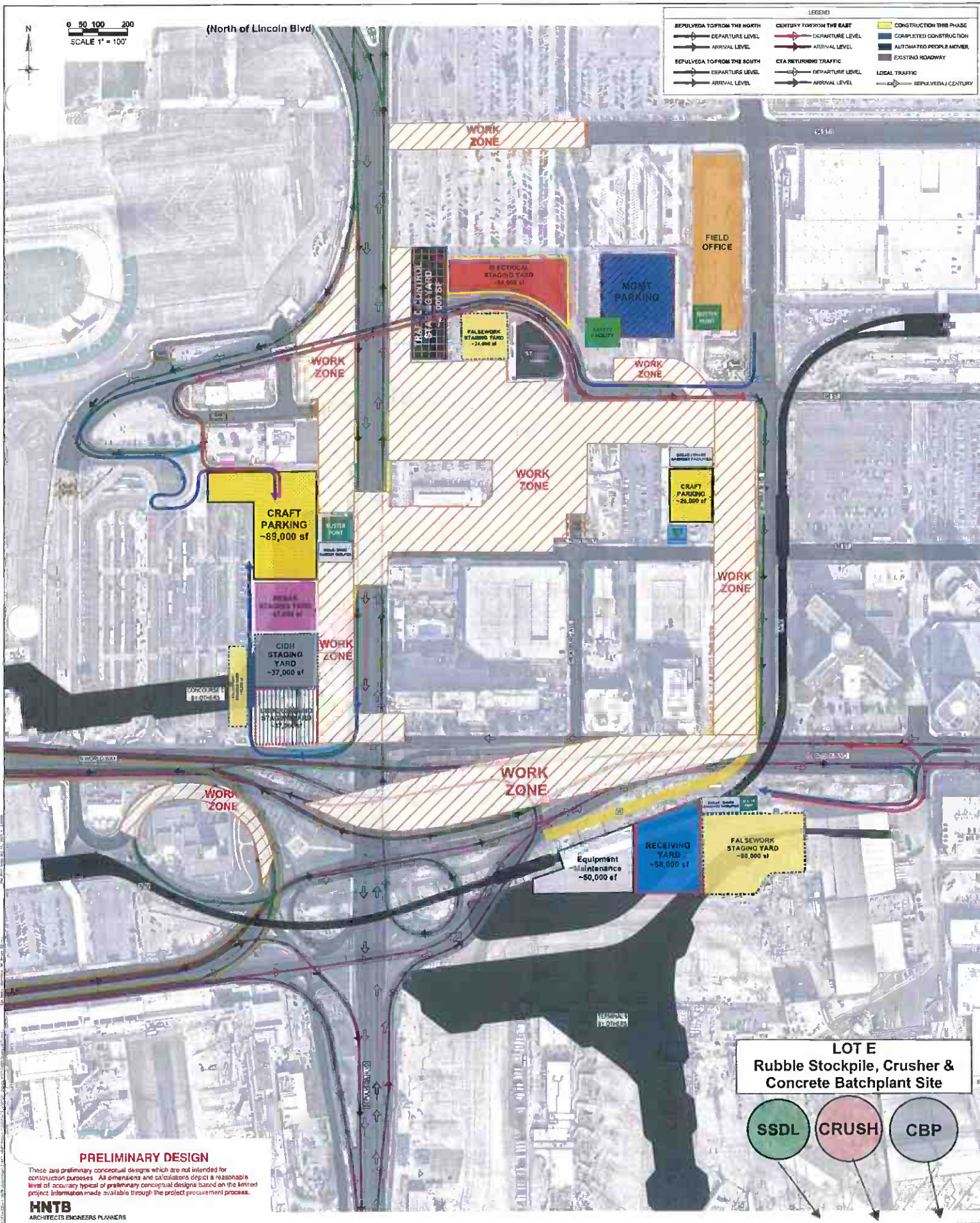
	Parcel Description	Approximate Area (SF)	Approximate Area (AC)
1	Taxi Hold Lot	147,612	3.39
2	Lot E - Paved Area	256,009	5.88
3	Lot E - Crushing Operations	244,592	5.62
4	Park One	414,159	9.51
5	Lot C	389,522	8.94
6	Cell Phone Lot	30,122	0.69
7	City Bus Center Lot	132,411	3.04
8	Alverstone Parking Lot	55,778	1.28
9	PMO - Alverstone Trailers	23,476	0.54
10	Old Police Building & Parking	39,696	0.91
11	Admin East Lot	334,876	7.69
12	Sepulveda Lot	168,919	3.88
13	Century Lot	342,844	7.87
14	Terminal 9 Lot	353,669	8.12
15	Homewood Lot	70,640	1.62
16	Sunrise Lot	39,286	0.90
17	Wally Park Lot	62,709	1.44
18	Hyatt Lot	3,939	0.09
19	College Lot	132,014	3.03
	Totals	3,242,273	74.43

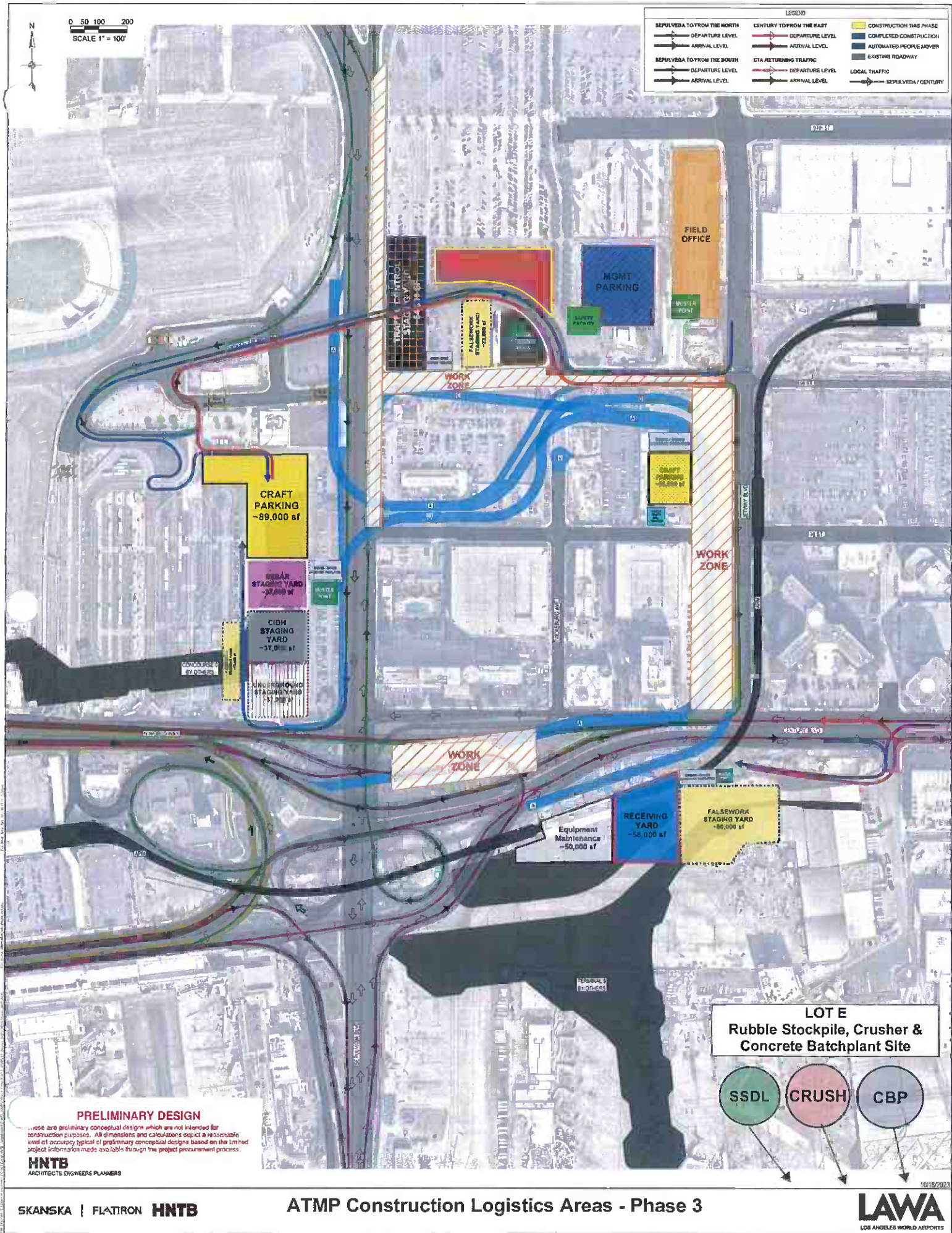


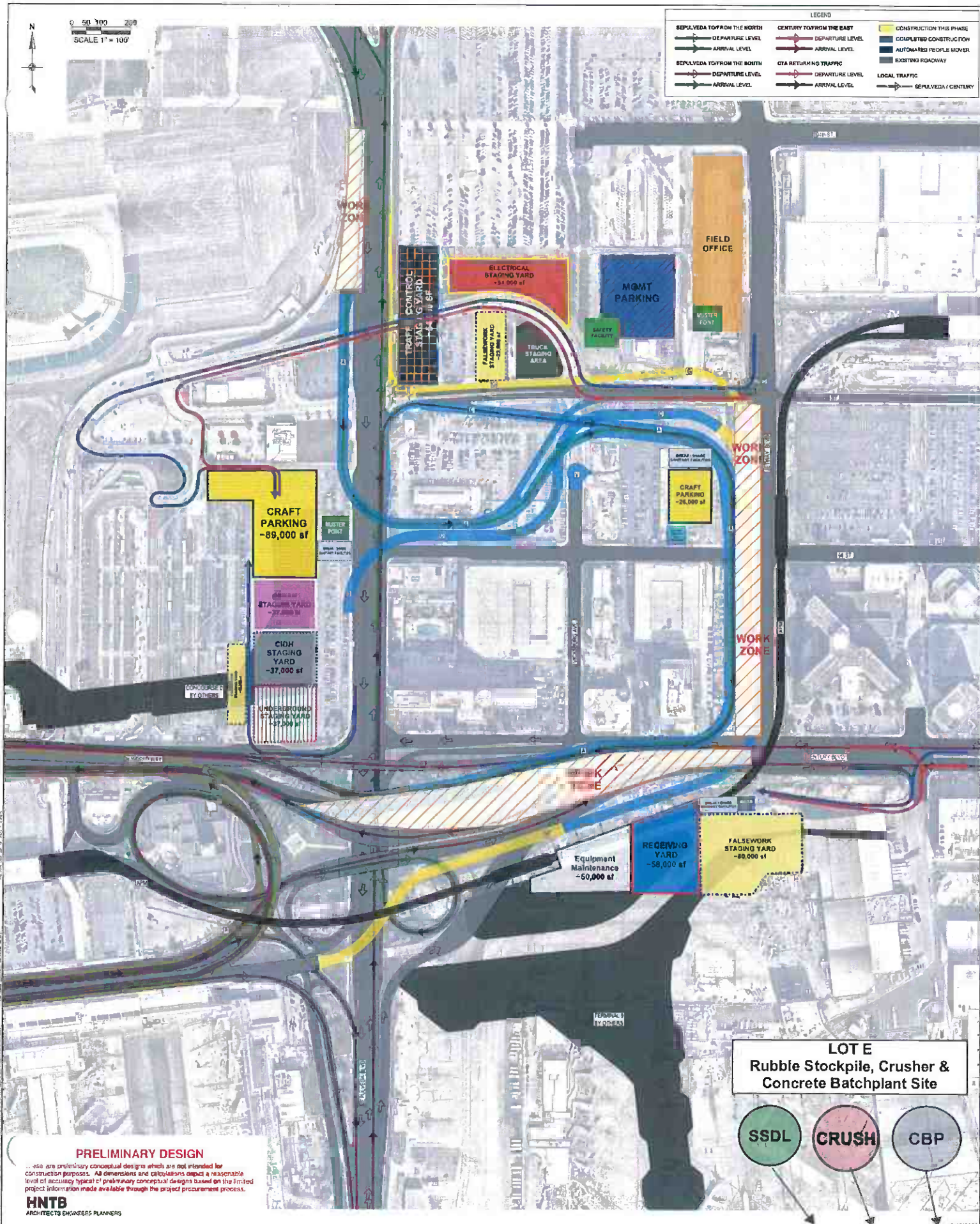
PRELIMINARY DESIGN

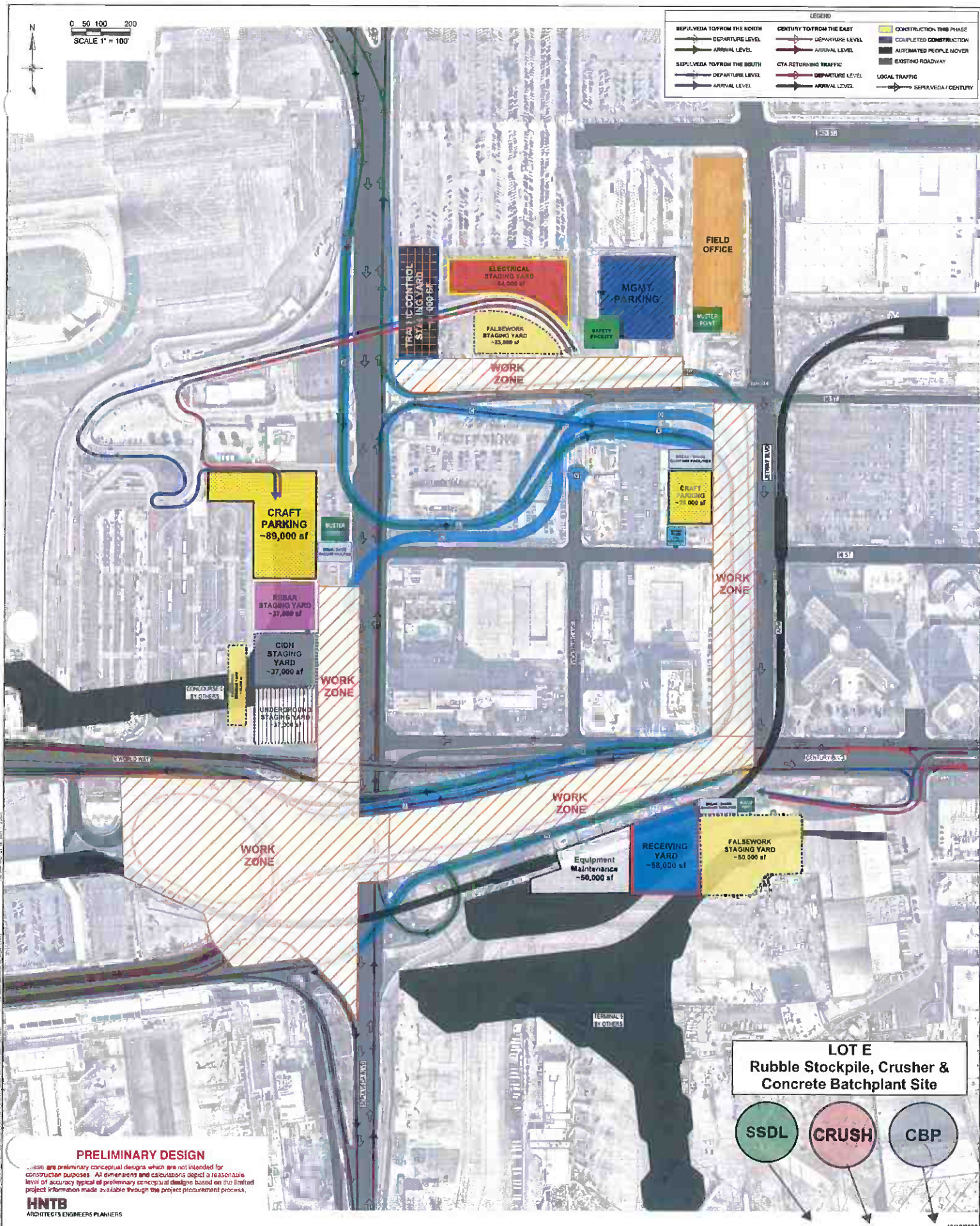
These are preliminary conceptual designs which are not intended for construction purposes. All dimensions and calculations depict a reasonable level of accuracy typical of preliminary conceptual designs based on the limited project information made available through the project procurement process.

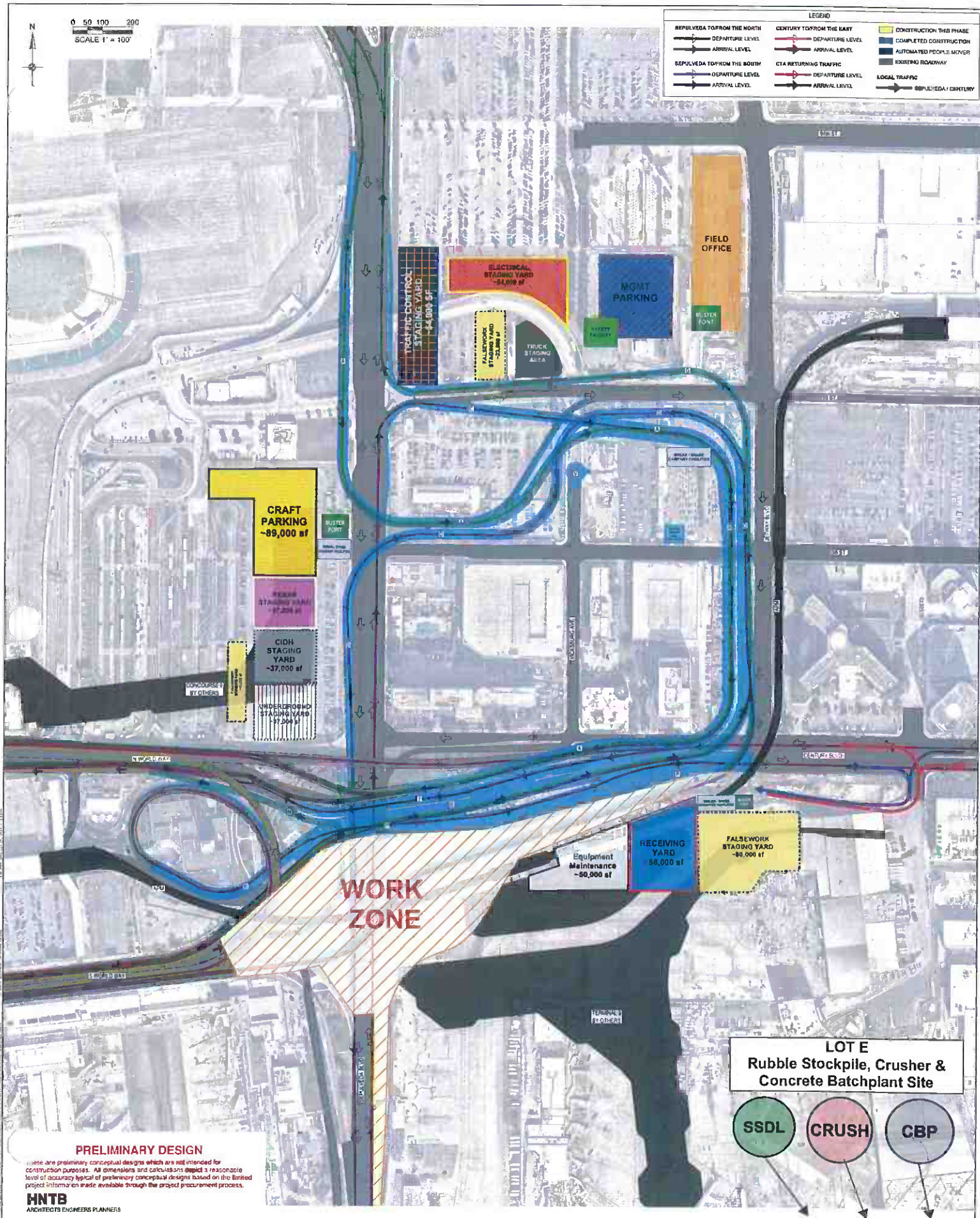
HNTB
ARCHITECTS ENGINEERS PLANNERS











PRELIMINARY DESIGN

These are preliminary conceptual designs which are not intended for construction purposes. All dimensions and calculations depict a reasonable level of accuracy typical of preliminary conceptual designs based on the limited project information made available through the project procurement process.

HNTB
ARCHITECTS ENGINEERS PLANNERS

Appendix 4 – Safety Plan (PR-15)



Safety, Health, and Environmental Management

Safety Plan (PR-15)

6/13/2023

SKANSKA | FLATIRON

Safety Plan

1. Who's Safety Program do I follow?

SFJV will meet all safety and security requirements as required by law, in compliance with LAWA's Construction Safety Requirements Design and Construction Handbook, Cal/OSHA safe practices and regulations, FAA rules and as required by corporate safety policies of Skanska, Flatiron. Objective is to eliminate all injuries to persons and damage to property - In the event of a conflict in policy of any of the above the most stringent application will be met.

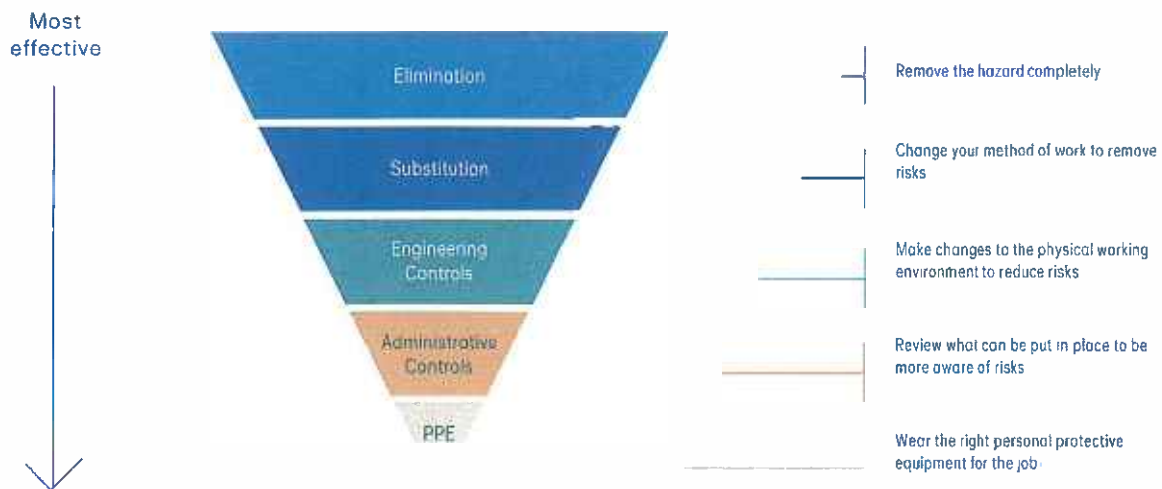


Care for Life 5

Human-Machine Interface (HMI)
Energized Systems • Line of Fire
Falls • Lifting Operations

2. Care For Life

SFJV team members will also follow Skanska's Care for Life brand of safety. Our commitment to Care For life is unparalleled in the construction industry, going far beyond the standard safety program. It is a way of life and culture, which values the worth and total well-being of all individuals on our jobsite and extends to their families.



An Incident Prevention Plan (IPP) will be developed specifically for this project, based on our corporate Care For Life guidelines and the best practices developed on similar projects. We have developed extensive safety programs that produce results and have contributed to OSHA VPP Star recognition. Some components of the IPP include:

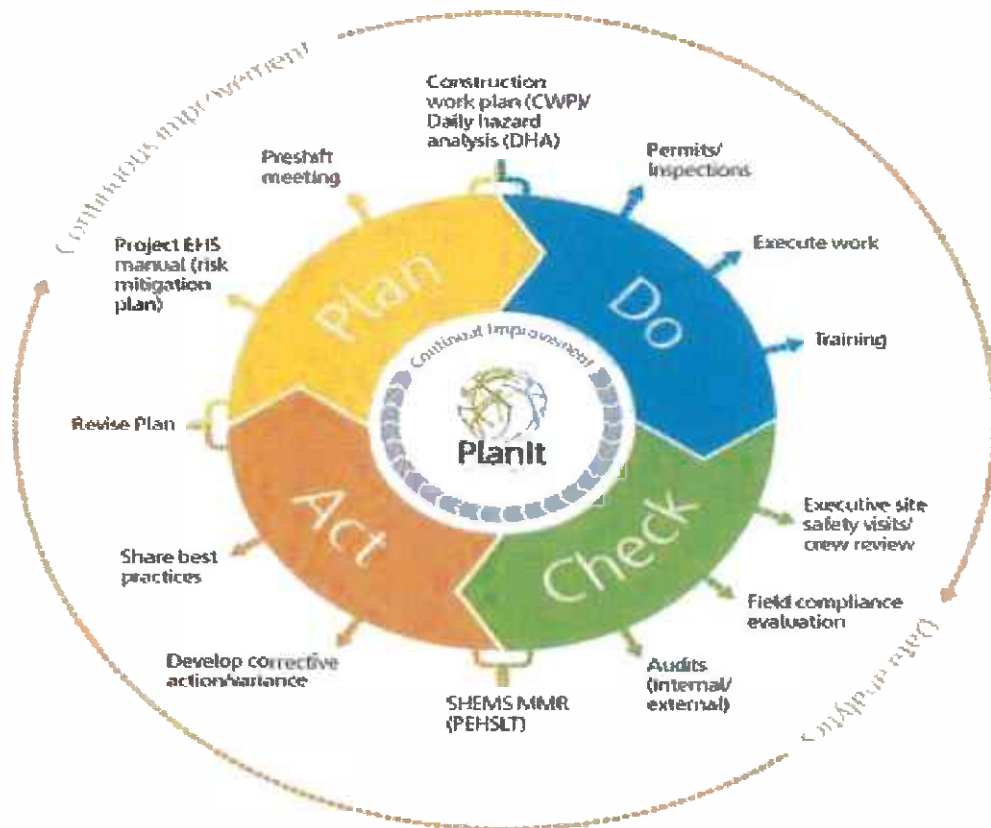
- Incident response plan (Emergencies)
- Site specific safety plan
- Employee orientation
- Drug testing
- OSHA 10HR course – Retain every 4yrs (**All Field Workers – Required on any LAWA Project**)
- OSHA 30HR course – Retain every 4yrs (**All Supervisory Staff – Required on any LAWA Project**)

- Job hazard analysis
- Hot work permit procedures
- Confined space permit procedures
- Project safety committee to include trade representation
- Safety incentive and recognition
- Evacuation planning and drills
- Training
- Safety inspections, interviews and audits
- Weekly safety report (**As required – Recurring deliverable to LAWA**)
- Site Specific Safety Plan
- Environmental monitoring

3. Plan – Do – Check - Act

The Plan-Do-Check-Act spells out the goals SFJV establishes for the operations of the project regarding environmental responsibility, safety, ethics, quality and the use of sound financial practices to choose the right projects and deliver positive results. These qualitative targets reflect our core values and provide the basis for incentive systems at various levels within the company.

1. Hazard Recognition
2. Continuous Training & Improvements
3. Construction Work Plans
4. Craft/Management Engagements
5. Stop Work Authority



4. Safety Program

SFJV strives to achieve first class safety results. The fundamentals of our safety program are employee involvement, management commitment, visible leadership, proactive preplanning, setting expectations, open lines of communication, and continual improvement. Employees from top management down must be committed to working safely and be held accountable for their actions. Each employee is empowered to stop work in the event that they see an unsafe act and is held accountable if they fail to do so. This is accomplished with supportive leadership, open lines of communication, and a personal commitment to safety as a value. SFJV commits the necessary resources to provide adequate training and education.

Our safety program begins with safety pre-planning prior to commencing a field activity when a preliminary Safety Health Environmental Management System (SHEMS) is developed. Once a task is identified, the SHEMS is further refined. Construction Work Plans (CWP's), which include Job Hazard Analysis, are developed for craft specific, job specific, and task specific activities. CWP's are developed with the employees who are going to perform the work, enabling employees to take ownership of their safety and that of their co-workers.

SFJV recognizes that the training of our workforce is critical to safe work and we will provide extensive in-house training. When work begins, the entire project management team participates in our in-house Safety Leadership Training. This training module reinforces SFJV corporate commitment to Zero Incidents and re-emphasizes the safety expectations that senior management has for all employees.

SFJV Team Members are expected to create and maintain a culture of behavior. We are all expected to create a climate of accountability and responsibility for safe performance at all levels of the company. SFJV Safety Leaders work to create a climate of teamwork within the project. Formal site orientation is held for all new hires. SFJV requires that all employees receive an orientation to the safety rules and policy upon initial employment. All employees also receive task training. During construction operations we will hold daily and weekly safety briefings for project employees, including subcontractors. In addition, SFJV will coordinate weekly meetings with LAWA to go over the following items listed below as part of LAWA safety requirements:

1. Review weekly reports.
2. Discuss current conditions.
3. Tour the project
4. Preview look-ahead schedule for upcoming work

During these safety meetings, project management has an opportunity to communicate expectations as well as discuss possible issues. SFJV has a safety suggestion system that is incorporated into our daily job briefings. This gives the front-line supervisor an opportunity to view his/her employee's suggestions and address them either individually or in a tailgate safety meeting.

The SFJV Executive Safety Committee includes senior management, operations, project management, and the safety department. The Safety Committee continually works to improve safety programs by developing new safety strategies, eliminating unsafe conditions and behaviors, stopping unsafe work, and informing key operating personnel throughout the Joint Venture staff.

The SFJV Safety Program is a living program. It has the ability to change and adapt to different conditions as the project progresses. The ultimate goal of our program is to ensure everyone goes home safely at the end of each day.



Environmental, Health and Safety Manual

LAWA ATMP ROADWAY IMPROVEMENTS

90009220 Editing

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Created Date: 6/12/2023

Skanska USA Civil, Inc.

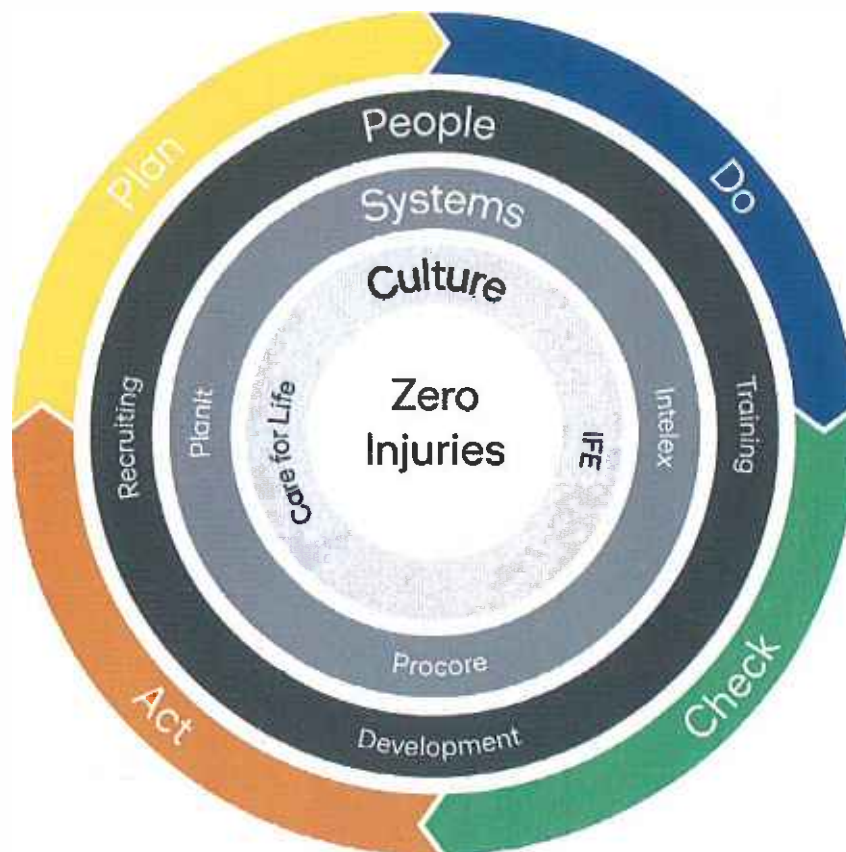


Table of Contents

Table of Contents	2
Introduction	6
Care for Life	7
Environmental Health and Safety Policy Statement	8
SHEMS	10
SHEMS Program	10
Identification and Management of EHS Impacts	15
Determining Legal and Other Requirements	18
Training	19
Communication	25
Incident Investigation	27
Audits	29
Nonconformance, Corrective Actions and Preventative Actions	31
Emergency Preparedness	32
Management Review	33
Document Control	38
Policies	39
Accountability Policy	39
Cell Phone Smart Device User Program	41
EHS Policies Specific to Subcontractors	43
Fit For Duty	47
Personal Protection Equipment - PPE	48
Stop Work Authority	50
Substance Abuse Policy	51
Vehicle Policy	53
Safety	56
Concrete and Masonry	56
Confined and Enclosed Spaces	61
Cranes and Cranes Rigging	65
General Policy	65
Applicable Regulations and Other Requirements	66
Definitions	66
General Policy: Regional / Project-Specific Requirements	71
Site Prep	71
Required Documentation	71
Owner Notification Requirements	72
Geotechnical and Crane Location Plan (CLP) Requirements	72
Monthly Project Crane Meeting	72

Site Prep: Regional / Project-Specific Requirements	72
Operations	72
Authority to Stop Operation / Emergency Stop	72
Notifications	72
Safety Devices	72
Assembly / Disassembly (A/D)	73
Assembly / Disassembly Crew Responsibilities	73
Cell Phones or Other Devices	75
Grounding	75
Leaving the Equipment Unattended	75
Load Control	75
Receiving a Load	75
Free Fall and Controlled Load Lowering	75
Compliance with Rated Capacity	76
Load Weight	76
Use of Load Chart	77
Work Area Control	77
Pre-Operational / Pre-Lift Meeting	77
Lift and Carry	78
Operator Requirements and Responsibilities	78
Operations: Regional / Project-Specific Requirements	78
Lift Planning _____	78
Lift Classification	78
Planned Personnel Lifts	78
Critical Lift	84
Major Lift	85
Standard Lift	85
Repetitive / Similar Lifts	85
Multiple Crane Lifts	85
Lift Planning: Regional / Project-Specific Requirements	85
Maintenance and Inspection	86
Inspection and Oversight Requirements	86
On-Hire / Off-Hire Inspections	86
Inspection Requirements	86
Tagout	88
Wire Rope Inspection	88
Maintenance and Inspection: Regional / Project-Specific Requirements	92
Electrical	92
Power Line Safety – Assembly and Disassembly	92

Power Line Safety—Equipment Operations	94
Electrical: Regional / Project-Specific Requirements	99
Weather	99
Wind	100
Lightning	100
Winter Months	100
Weather: Regional / Project-Specific Requirements	100
Training Requirements	100
Signal Training—General Requirements	100
Electrical Training	103
Dedicated Spotter	103
Rigging Training	103
Unconventional Cranes	103
Tower Cranes	103
Derricks	108
Floating Cranes, Derricks and Land Cranes, Derricks on Barges	111
Overhead & Gantry Cranes	116
Unconventional Cranes: Regional / Project-Specific Requirements	116
Program Management	116
Crane Management System	116
Program: Regional / Project-Specific Requirement, Approvals and Storage	116
Document Storage	117
Program Evaluation and Improvement	117
Demolition	120
Dropped Object Protection	122
Electrical	124
Excavation and Trenching	127
Fall Prevention and Protection	131
Fire Prevention and Protection	136
Housekeeping	140
Illumination - Project Lighting	142
Inclement Weather and Lightning	145
Lockout Tagout	147
Maintenance and Protection of Traffic	152
Material Handling and Storage	157
Mobile Elevated Work Platforms	165
Motor Vehicles and Mechanized Equipment	168
Pile Driving	171

Pressurization of Piping Systems	174
Rigging	177
Scaffolds	180
Signs, Signals and Barricades	184
Stairways and Ladders	186
Steel Erection	189
Temporary Works	192
Tools - Hand and Power	194
Welding and Cutting	197
Environmental	201
Archaeological, Cultural and Historic	201
Community Impacts Transportation, Traffic Circulation & Economic	203
Community Impacts Utilities	205
Hazardous Materials and Waste Management	207
Materials and Waste Management	209
Noise and/or Vibration	211
Outdoor Air Quality	213
Spills and Leaks	215
Water Impacts	217
Health	219
Asbestos Inclusive of Naturally Occurring Asbestos	219
First Aid, Emergency Services, Bloodborne Pathogens	221
Hazard Communication	223
Heat and Cold Related Illness	225
Infectious Disease Prevention and Response	227
Noise Exposure	230
Respiratory Protection	232
Sanitation	236
Silica	238
Appendix	240
Attachments	240
Additional Project Requirements	241
Change Log	256



Care for Life

1. In 2003, Skanska implemented an Injury-Free Environment (IFE®) initiative on all our projects. IFE is the shared corporate and individual belief that safety is a value, not compromised by cost or schedule. The program is designed to create for all workers a mindset intolerant of any frequency or severity of injury or incident.
2. To further enhance IFE, Skanska adopted Care for Life as the number one core value in 2016. Skanska has embraced the Plan, Do, Check, Act model of continuous improvement as an integral component to live this value.
3. Everyone involved on projects, from craft workers to our client partners, has ownership of the EHS program and is held accountable for its implementation. The core principles of our Care for Life value include the following:
 - We care for life of people and the environment.
 - We work safely or not at all.
 - We never walk by if we notice unsafe actions.
 - We support health and well-being.
 - We promote green solutions, and we run our operations in a green way.
 - We are accountable for future generations.
4. We manage our Care for Life through training and participation. All subcontractors and workers entering our jobsites are encouraged to attend Care for Life training, which focuses on workers' personal relationship to safety and three skills:
 - Assigning injury-free work
 - Recognizing and reinforcing safe work
 - Constructively correcting at-risk work



Environmental Health and Safety Policy Statement

SKANSKA

Environmental, Health and Safety Policy

Skanska is attuned to the potential safety, health and environmental impacts of its operations and activities. In keeping with Skanska AB policies, which are incorporated here by reference, Skanska's management has established, implemented and maintains a safety, health and environmental management system to address these potential impacts and to carry out operations and activities in a manner that is protective of human health and the environment. This management system is designed to make safety, health and environmental care an integral part of all projects and a responsibility of all employees and any persons working for, or on behalf of, Skanska. It allocates appropriate resources and provides the training necessary to ensure the achievement of established safety, health and environmental objectives and targets.

Senior Skanska management is committed to keeping this system effective for its intended purpose and to continually improving it as a framework to achieve the following results:

Regulatory Compliance

We will evaluate and comply with all applicable federal, state and local laws and regulations and any other requirements at each location where we conduct business.

Prevention of Accidents

We will strive to identify and assess risk in all our activities and take actions to mitigate any high-risk conditions.

Prevention of Pollution

We will seek first to cost-effectively avoid the creation of pollution and waste from our projects and operations, and second, to manage remaining waste through safe and responsible methods.

Conservation

We will strive to reduce our consumption of natural resources through cost-effective use of recycled and reused materials and conservation of energy and water.

Emissions and Effluents

We will work to diminish our emissions and effluents by employing cost-effective operational controls, by diligently monitoring operational indicators and by implementing corrective and preventive actions where necessary.

Ecology and Habitat

We will protect habitats, wetlands and other sensitive ecological resources in accordance with applicable regulations and local ordinances.

Hazardous and Toxic Substances

We will exercise caution when using hazardous materials and not use toxic substances if we cannot assess their human, ecological or environmental risks.

Communication

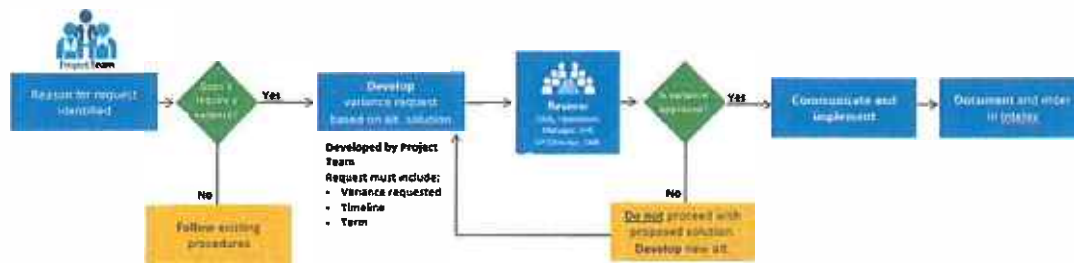
We will communicate this policy to all employees, make it available to the public and establish procedures to receive and respond to inquiries from external interested parties. We will also alert potentially affected individuals and authorities of any safety, health or environmental incidents in a timely and effective manner. Thorough investigations will be conducted and corrective and preventive actions implemented and monitored. Senior management at Skanska believes that how we care for people and the environment today affects both current and future generations. We accept our responsibility for doing our best to maintain awareness and to minimize adverse safety, health and environmental impacts from our operations.

November 2018

EHS POLICIES

1. These EHS policies address Skanska's expectations to protect the environment and the health and safety of everyone at or nearby Skanska project sites. To the extent these EHS policies relate to Skanska employees, Skanska has direct responsibility for enforcing these policies.¹ To the extent the policies relate to subcontractors and their employees, workers or other personnel on a site at the behest of a subcontractor, the subcontractors are responsible for ensuring that their workers comply with these expectations.²
2. Skanska further reserves the right to supplement, modify or alter these policies at any time.

Process for Variance Request



In situations where a gap in the system has been identified, or when an element of the program is not applicable or must be modified to address the risk effectively and comply with the SHEMS, a variance to the requirements contained in the manual may be granted. A written variance request must outline the initial requirement, the proposed variance, and a timeline for implementation and termination.

Variances may be granted through agreement of the Regional General Manager, Regional Operations Manager and the regional EH&S Vice President/Director and applicable subject matter experts.

When a variance request is generated, granted, or rejected, a notification to the EH&S National level leadership must be made.

In the event that a variance decision cannot be made, the National EH&S VP in conjunction with the REO/EVP will assist till resolution.

The variance request and regional decision must be documented in writing and included in the Monthly Management Review at the project and regional level.

EHS Manual Definitions

1. The term "employee" is defined as a person employed by Skanska USA Civil, Inc., and, in the case of a joint venture includes all individuals employed by the joint venture or working at a project on behalf of the joint venture while remaining in the employ of a joint venture partner.
2. The term "subcontractor" is defined as a business or person of any tier below Skanska USA Civil, Inc. that performs any part of the labor or material requirements of a contract for construction, alteration or repair on the project.
3. The term "subcontractor employee" is defined as a person employed by a subcontractor. The definition of project "subcontractor employee" shall apply to every tier of subcontractor, its employees, independent contractors, agents, suppliers, and all workers who enter the project and perform a portion of the contract involving labor.
4. The terms "site personnel" and "worker" are defined to include employees of Skanska USA Civil, Inc. as well as subcontractor employees performing work at the project site. Subcontractors maintain all responsibility for managing, controlling and setting the terms and conditions of work for subcontractor personnel. To the extent that a subcontractor of any tier performs any part of the contract scope of work, it assumes responsibility for complying with the applicable provisions of this EHS Manual.

¹ As to Skanska employees, as stated in the applicable Employee Handbook, employment with Skanska is employment at will. This means that employment may be terminated for any or no reason, with or without cause or notice, at any time by an employee or by Skanska. Nothing in this EHS Manual or in any other document or oral statement shall limit the right to terminate at will. This employment at will policy is the sole and entire agreement between any Skanska employee and Skanska, as to the duration of employment and the circumstances under which employment may be terminated.

² Nothing in the EHS Manual is intended to or should be deemed to give Skanska the right to control any site personnel who are not Skanska employees. This EHS Manual does not create any joint employment relationship, either direct or implied, between Skanska and any subcontractor worker.

SHEMS



SHEMS Program

Corporate Organization Structure

Skanska USA Civil, Inc. is a construction and development firm that encounters factors such as, occupational health and safety risk along with potential environmental aspects that influence the way we perform our work.

These factors often have the potential to influence the outcome of our projects by exposing our employees to unnecessary hazards and potentially having negative impacts to the environment. It is the obligation of all levels and functions within the organization to identify and mitigate potential negative impacts while being committed to promoting positive impacts through continual improvements to the program.

Skanska's Safety, Health and Environmental Management System (SHEMS) provides the format to conduct work on projects managed by Skanska in the context of increasingly stringent legislation, the development of economic policies and other measures that foster both safety and environmental protection. The program has been developed and is based on continual improvement associated with increased concern expressed by interested stakeholders regarding environmental matters and sustainable development.

The scope of Skanska's SHEMS applies to all sizes and types of projects where Skanska maintains operational and financial control. It is in this context that Skanska has developed a Corporate Safety, Health and Environmental Management System (SHEMS), which conforms to both the ISO 45001:2018 and the ISO 14001:2015 standards.

The following table illustrates how Skanska complies with both the ISO 45001:2018 and the ISO 14001:2015 standards:

ISO 14001 / ISO 45001 Standards SHEMS Procedures Correlation Table

ISO 14001-2015 Elements	ISO 45001:2018 Elements	SHEMS Section
4.0 Context of Organization	4.0 Context of Organization	SHEMS Program
5.0 Planning	5.0 Leadership and Worker Participation	SHEMS Program Communication Identification and Management of EHS Impacts
5.1 Leadership and commitment	5.1 Leadership and Commitment	SHEMS Program Communication Identification and Management of EHS Impacts
5.2 Environmental Policy	5.2 OH&S Policy	Skanska USA Environmental Health and Safety Policy Statement
5.3 Organizational Roles, responsibilities and authorities	5.3 Organizational Roles, responsibilities and authorities	Organizational Chart
	5.4 Consultation and participation of Workers	DHAs, Safety Committee Meetings, Tool Box talks
6.0 Planning	6.0 Planning	
6.1 Actions to address risks and opportunities (title only)	6.1 Actions to address risks and opportunities (title only)	Identification and Management of EHS Impacts
6.1.2 Environmental aspects	6.1.2 Hazard identification and assessment of risks and opportunities	
	6.1.2.1 Hazard identification	

	6.1.2.2 Assessment of OH&S risks and other risks for the OH&S Management system	
	6.1.2.3 Assessment of OH&S opportunities and other opportunities for the OH&S Management system	
6.1.3 Compliance obligations	6.1.3 Determination of legal requirements and other requirements	
6.1.4 Planning action	6.1.4 Planning action	
6.2 Environmental objectives and planning to achieve them (title only)	6.2 OH&S objectives and planning to achieve them (title only)	Identification and Management of EHS Impacts
6.2.1 Environmental objectives	6.2.1 OH&S objectives	Determining Legal and Other Requirements
6.2.2 Planning actions to achieve environmental objectives	6.2.2 Planning to achieve OH&S objectives	
7.0 Support	7.0 Support	
7.1 Resources	7.1 Resources	Identification and Management of EHS Impacts
7.2 Competence	7.2 Competence	Training
7.3 Awareness	7.3 Awareness	
7.4 Communication	7.4 Communication	Communication
7.4.2 Internal communication	7.4.2 Internal communication	
7.4.3 External communication	7.4.3 External communication	
7.5 Documentation	7.5 Documented information	Document/Record Control
7.5.2 Creating and Updating	7.5.2 Creating and Updating	Applicable documentation defined in specific procedure
7.5.3 Control of Documented information	7.5.3 Control of Documented information	
8.0 Operation	8.0 Operation	
8.1 Operational planning and control	8.1 Operational planning and control	Identification and Management of EHS Impacts
	8.1.2 Eliminating hazards and reducing OH&S risks	
	8.1.3 Management of change	
	8.1.4 Procurement	
	8.1.4.2 Contractors	
	8.1.4.3 Outsourcing	
8.2 Emergency preparedness and response	8.2 Emergency preparedness and response	Emergency Preparedness
9.0 Performance Evaluation	9.0 Performance Evaluation	
9.1 Monitoring, measurement, analysis and evaluation	9.1 Monitoring, measurement, analysis and evaluation	Management Review
9.1.2 Evaluation of compliance	9.1.2 Evaluation of compliance	Communication, Management Review
9.2 Internal Audit	9.2 Internal Audit	Audits
9.3 Management Review	9.3 Management Review	Management Review

10.0 Improvement	10.0 Improvement	
10.2 Nonconformity and corrective action	10.2 Incident, Nonconformity and corrective action	Incident Investigation, Nonconformance, Corrective Actions and Preventative Action
10.3 Continual Improvement	10.3 Continual Improvement	Communication, Management Review

Through elements of the Skanska USA Civil, Inc. Safety, Health and Environmental Management System (SHEMS) each requirement of both standards is satisfied. As part of the auditing process these elements of SHEMS are internally and externally audited to verify compliance with both ISO standards as well as to identify opportunities for improvement as part of the Plan>Do>Check>Act cycle.

The corporate management system is developed from policies and procedures established and endorsed by senior leadership in our policy statement. The program serves as the foundation for the management of all occupational health and safety risk as well as significant environmental aspects encountered during the development and construction of our projects in the US.

The scope of the Skanska USA Civil, Inc. (SHEMS) applies for all Skanska construction projects where Skanska maintains operational and financial control.

As such, the context for each project's SHEMS reflects client requirements. The project team also takes into consideration external and internal issues as they relate to the needs and expectations of all stakeholders such as employees, clients, investors, contractors, government agencies and the immediate community associated with each project.

The program is a prescriptive approach to mitigate occupational health, safety and environmental risk and the program is managed at three levels.

USA Inc. / Business Unit Executive Leadership

The foundation of Skanska's SHEMS is based on an executive review of potential occupational health and safety risks in addition to potential environmental aspects (our inputs) associated with our work to develop corporate controlled programs to ensure success (our outputs). This is accomplished through the SHEMS and analysis of leading and lagging indicators.

USA/BU Level	
Advise, review, prioritize and review EHS initiative	Governance Committee
Establish and ensure implementation of EH&S program. Maintain, measure and continually improve EH&S program.	Senior Leadership Team, SHEMS Director
Leadership and commitment/EH&S Policy	Senior Leadership Team
Responsibilities and Authorities	Senior Leadership Team
Coordinate External Audit process and ensure closeout of non-conformances	SHEMS Director
Review and determine adequacy of resources to successfully implement the program	Senior Leadership Team
Identify and develop applicable communication plans	Senior Leadership Team
Schedule and prepare for the execution of EHS specific meetings (Annual Management Review, etc.)	Chief of EH&S Officer
Responsible for Communication to HQ and Regional level	Senior Leadership Team

Regional/Operating Unit Leadership

It is the responsibility for each region/operating units Senior Leadership Team to ensure the SHEMS is implemented and maintained on all projects within their control. The status of the SHEMS is reviewed on a monthly basis utilizing a Regional/Operating Unit level leading indicator dashboard which highlights each group's performance. Any potential for continual improvements, gaps in the system and action plans are meant to be addressed at this level and used as inputs into the senior level meetings.

Regional Level	
Implement, maintain, measure and continually improve EH&S program	Regional Leadership

Identify and comply with legal and other requirements	Regional Safety Leadership Team
Leadership and commitment	Regional Leadership Team
Review and determine adequacy of resources to successfully implement the program	Regional Leadership Team
Responsible for Communication to Corporate and Project level	Regional Leadership Team
Ensure current documents are used and that records are properly prepared, maintained, retained and disposed	EHS VPs/EHS Directors
Sustainability Indicators track/report (e.g., office energy, fuel use for business travel)	Regional Leadership Team
Schedule and prepare for the execution of EHS specific meetings (Annual Management Review, Monthly Regional Review, etc.)	Regional Leadership Team
Ensure Internal Audits and PAS audits are conducted as required	EHS VP/EHS Director
Establish, measure and communicate performance indicators aligned with national targets of EH&S program	Regional Safety Leadership Team

Project Leadership

This system is implemented at the project level by Project Leadership and supported by Regional/Operating Unit Leadership.

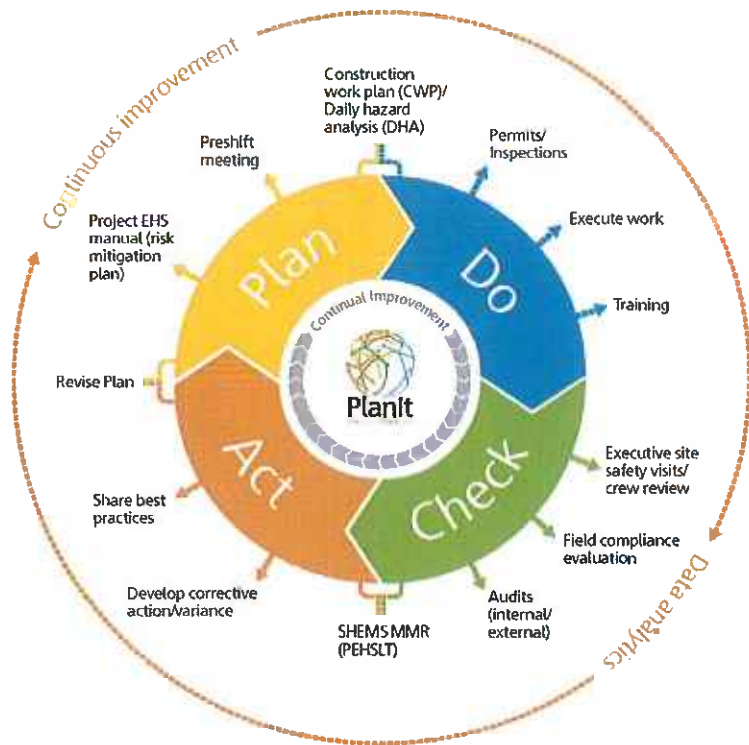
Project teams identify EHS risks utilizing Skanska's PlanIt tool. The PlanIt tool is used to create an EHS Manual complete with Skanska corporate controls which serve as the project SHEMS and is applicable to whoever performs work on Skanska's behalf. This document is specific to the scope of work and the basis for the project specific SHEMS.

During the design phase of alternative delivery projects, the SHEMS gives us the opportunity to control and influence environmental performance and provide our clients with a life cycle perspective associated with the project. These opportunities are evaluated using various sustainable rating systems (i.e. LEED, Envision, etc.) or other similar means (Skanska's Green Color Palette).

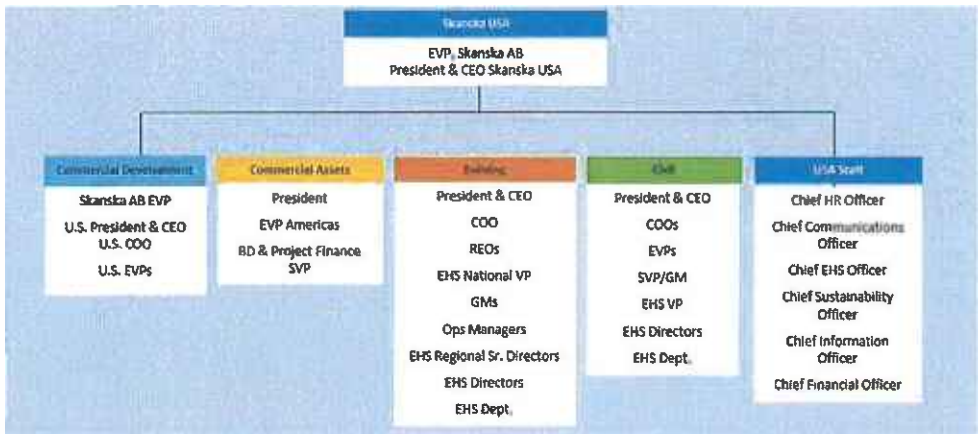
Project Level	
Responsible for communication to project team, craft and regional level	Project Leadership Team
Schedule and prepare for the execution of EHS specific meetings (Monthly Management Review, PEHSLT, etc.)	Project Leadership Team
Implement, maintain, measure and continually improve EH&S program	Project Leadership Team
Develop and ensure implementation of EHS Manual and associated plans (e.g. environmental compliance plan, environmental targets, abatement plans, etc.)	Project Leadership Team
Leadership and commitment	Project Leadership Team
Review and determine adequacy of resources to successfully implement the program	Project Leadership Team
Hazard identification and mitigation	Project Leadership Team
Ensure current documents are used and that records are properly prepared, maintained, retained and disposed	Project Team / EHS professionals

Skanska's SHEMS is designed to continuously improve based on internal and external factors. By using a continuous improvement model, the program is designed to be interdependent and incorporate input from all levels and functions within and outside of the organization, including workers and all interested parties. Together, we are able to ensure the health and wellbeing of all stakeholders associated with our work and control impacts to the natural environment in which we work in.

Below is a graphic of Skanska's SHEMS:



Corporate Organization Chart





Identification and Management of EHS Impacts

Objective

The objective is to identify the EHS impacts of the company's activities, products and services and to develop operational controls, indicators, measurable objectives and targets as defined in the EHS Manual. This assessment will take into account our operations, subcontractor operations, visitors and vendor activities. EHS impacts will be identified before the start of work and updated as needed.

Procedure

1. Identifying EHS Impacts and Determining Significance

1. Prior to beginning work, project teams will identify and assess all potential EHS aspects and impacts utilizing the Plant Tool to create a project specific EHS Manual. The following criteria establish the EHS aspects and impacts as significant:
 - Any EHS impact with a regulatory requirement
 - An impact deemed significant by a client
 - Potential human exposure to a hazard
 - A solid waste stream that can be profitably recycled or reused related to a Skanska green strategic indicator or initiative
 - Any situation that could result in adverse publicity or negative public opinion
2. The EHS Manual identifies the minimum requirements for all significant environmental aspects and health and safety hazards. For each EHS aspect and hazard identified, the project team will customize the project EHS Manual and ensure the following items are included:
 - Significant Environmental Aspects Objectives
 - Quantifiable Environmental Targets (where practical)
 - Health and Safety Objectives
 - Operational controls
 - Performance indicators
 - Legal and other requirements
 - Roles and responsibilities
 - Documents and records
 - Training
 - Emergency response
3. A formal life cycle approach to environmental management will be taken on projects when required by project specification or the owner's request to work within the guidelines of a Sustainability Rating System (e.g., Leadership in Energy and Environmental Design (LEED), Envision, Green Roads, Living Building, etc.).
4. All projects will be required to collect sustainability performance indicators data utilizing the SPI module in Intalex. This may include information regarding the following:
 - Fuel quantity used for site equipment (can be collected from fuel delivery tickets)
 - Electricity consumption records (typically obtained from electrical bill)
 - Construction material quantities (take off quantities or quantities used in payment requisition to the Owner is sufficient)
 - Water volume used for construction operations (potable and non-potable, metered or estimated—e.g., using water from a fire hydrant for dust control and recording meter readings)
 - Construction and demolition debris quantities and handling/processing information (typically provided by the waste hauler via weight tickets and summary report- alternatively, send waste hauler the project's waste tracking form and request it be returned monthly with weight tickets as backup)
5. Each project uses an integrated approach to manage the environmental, health and safety risks associated with the project and the individuals have been assigned specific responsibilities associated with the management of the program.
6. For each individual construction activity, a Construction Work Plan will be developed to identify and mitigate EHS risks and impacts. The CWP will be developed using Skanska's planning tool (Plant/Excel worksheet).
7. The CWP will include:
 - Plan identifies which will be a narrative description of each activity that details all elements of the task in a sequential order inclusive of means and methods.

- Identification of EHS Aspects related to the plan, and their associated initial and residual risk.
 - Triggers which include the task environment, equipment, materials and tools associated with the activity and controls to be implemented for risk mitigation.
 - Identification of competent person(s).
 - Training requirements (documentation to be provided prior to work commencing).
 - All equipment, materials, small tools and safety equipment.
 - Emergency action plan, including, but not limited to, fall protection rescue, confined space rescue, SCBA standby, HazMat team, etc.
 - Additional information as required (drawings, SDS sheets, cut sheets, etc.)
 - A Take 5 form to be utilized in the field to plan through unforeseen conditions and document any required revisions to the CWP.
8. The following hierarchy should be followed, in the prescribed order, when determining controls for each trigger:
- Elimination
 - Substitution (i.e., substitution of a product that is less hazardous, or using the same product but in a different form)
 - Engineering Controls (i.e., fitting mufflers to equipment to reduce noise at source, use of local exhaust ventilation systems, etc.)
 - Administrative Controls (e.g., utilizing enclosures, shift rotation, signage, barriers, etc.)
 - Personal Protective Equipment (PPE)
9. The CWP will determine the highest remaining risk level for each task. The risk levels will be classified as extremely high risk, high risk, moderate risk or low risk.
10. Skanska CWP's must be approved by an appropriate member of the management team. Subcontractor CWP's must be approved by subcontractor management and submitted to Skanska project management for review prior to starting work. As the risk associated with the task increases, the authorization for the activity advances through the organizational structure:
- Extremely high-risk operation—never authorized
 - High risk operation—company officer
 - Moderate risk operation—Project Manager, Superintendent and EHS
 - Low risk operation—Superintendent
11. Following management sign-off of the CWP, and before any activity begins, all crew members must be given training on the plan requirements, and are to sign the acknowledgement sheet.
12. A change in conditions requires the plan to be updated to mitigate any adverse effects from original unforeseen conditions. The review and approval process stated above will be followed as the plan is updated.

2. Ongoing Risk Assessment

1. Daily Hazard Analysis

1. All crews including self-performed and subcontractors will participate in the Daily Hazard Analysis. The DHA will:
 - Be completed either electronically through Planit or utilizing a paper copy, which is located in the Intelex Document Control module.
 - Begin with a pre-shift meeting in the area where work is to be performed.
 - Include communications from project management to crew from the pre-shift meeting.
 - Include a 360 degree look around.
 - Be conducted by the foreman at the activity's location to communicate the risks, hazards and environmental aspects associated with the CWP.
 - Discuss the required controls to ensure safe performance and mitigate any negative impact to the environment.
 - Address changing conditions including simultaneous operations or adjacent work activities.
 - Provide an opportunity for craft employees to provide feedback or concerns to project management.
 - Be completed at the end of each shift and provided to Skanska project management for review.
2. A member of the Skanska project management team will review DHAs daily and provide any required feedback and address any EHS concerns.

2. Crew Reviews

1. At a minimum, each project team member with operational responsibility will conduct one Crew Review per month of either a self-perform or subcontractor crew. Frequency of Crew Reviews may be modified by following the established EHS Policy Variance process. Subcontractor leadership should also engage in the Crew Review Process to ensure all crews are being reviewed.
2. Crew reviews may occur at the beginning of the shift and include the foremen and all of their crew members. It is recommended for projects to create a rotating schedule to ensure that all project team members with operational responsibility complete Crew Reviews.

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3. The Crew Review shall be documented and ensure that the CWPs are:
 - Current to the ongoing task
 - Taking into account any changing conditions (i.e., the triggers noted on the original plan are still applicable)
 - Reviewed in the field and revisions provided prior to the next shift
 - Maintained in the project's EHS files
 4. Project management will address all EHS concerns, discuss findings and ensure that CWPs are revised as necessary.



Determining Legal and Other Requirements

Objective

The objective of this procedure is to provide projects with appropriate and relevant knowledge of federal, state and local safety, health and environmental regulations that are applicable to the hazards and environmental aspects of the activities and operations at their respective worksites.

Procedure

1. Authority and Responsibility

1. This project EHS Manual assigns roles and responsibilities to Skanska USA Civil, Inc. personnel to ensure legal compliance.
2. The project management team is responsible for maintaining operations in compliance with all applicable legal requirements.
3. The project management team will ensure all Skanska personnel are adequately trained in the risks they are exposed. Likewise, subcontractors shall ensure that their employees are adequately trained in the risks to which they are exposed.
4. Information on legal requirements can be obtained from multiple sources, including PlantIt, Intellex, legal publications, bulletins, notices and person-to-person contact with government agencies and officials and other open sources.

California Occupational Safety and Health Administration - www.dir.ca.gov/DOSH

California Environmental Protection Agency - <http://calepa.ca.gov>

Certified Unified Program Agencies - <http://calcupa.org>

California Code of Regulations - www.dir.ca.gov/dlse/ccr.html

State Water Resources Control Board - www.waterboards.ca.gov

Air Resources Board - www.arb.ca.gov

5. If regulatory requirements change, or activities or operations create a new EHS Aspect or Impact, the project management team will be responsible for identifying and enforcing all applicable legal requirements.
6. The EHS Department may transmit new legal or regulatory requirements through PlantIt. A log will be maintained in PlantIt to document all applicable legal requirement updates/changes.
7. The EHS Department may prepare management instructions, handbooks, interpretive statements and maintenance manuals to assist with legal compliance.



Training

Objective

EHS training will be conducted to ensure that employees understand how to execute their tasks safely while also protecting the environment.

Legal and Other Requirements

Skanska/Client Requirements

- None

Procedure

1. Procedure

1. These are minimum training requirements and are not intended to be all-encompassing. Training requirements are also referenced in the individual EHS aspects, CWPs and other EHS documents.
2. Prior to engaging in work, all Skanska employees will be trained on the EHS impacts of the tasks being performed. Likewise, all Subcontractors shall ensure all workers are trained on applicable EHS impacts of the tasks performed by those workers.
3. Timeline for completing required Skanska trainings will be listed as part of each individual's learning plan in Skanska Learning Center.

2. Project Orientation Training

1. All site personnel will receive project-specific orientation upon arrival at the project site.
2. Visitors to the project site shall be briefed on the associated project hazards that may be encountered during their visit and escorted by project personnel.

3. Care for Life Trainings

1. Care for Life training is required for Skanska employees working on Skanska USA Civil, Inc. projects. Care for Life shall be completed within the first year of employment. Care for Life training is optional for Subcontractors. The project team will make this determination.

4. Awareness Training

1. The objective of awareness training is to enable employees to recognize potential EHS impacts and to understand Skanska's policies as defined in this EHS Manual. Workers' roles and responsibilities will be communicated during awareness training conducted by Skanska or the subcontractor as applicable.
2. A baseline training matrix has been developed (see below) to determine the minimum training requirements within the organization. The training identified in the matrix is not intended to be all-inclusive. Specific awareness training will be identified at the operating unit level.

5. Training Matrix

Topic	Who Needs Training	What Training is Needed
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Topic	Who Needs Training	What Training is Needed
1. Project Specific EHS Orientation	All project management, supervision, and workers entering the project	<p>At a minimum the training must cover following Skanska's Corporate Policies:</p> <ul style="list-style-type: none"> ◦ Care for Life ◦ SHEMS Awareness ◦ Accountability ◦ Anti-harassment ◦ Environmental aspects ◦ Expectations for Stretch and Flex ◦ Code of Conduct ◦ Ethics <p>Site specific information may include:</p> <ul style="list-style-type: none"> ◦ Site Emergency Action Plan, ◦ Site Specific and Owner Requirements, ◦ OSHA 10/30hr Construction Outreach Training requirements ◦ Fall Protection General Awareness Training
2. Hazard Communication	All workers entering the project	<ul style="list-style-type: none"> ◦ Hazard Communication Basic Training
3. Hazardous Chemical or Substance	Workers exposed to hazardous chemicals or substances such as paints, solvents, lead, silica and asbestos	<ul style="list-style-type: none"> ◦ Specific Hazard Training
4. Respiratory Protection	Workers required to wear respiratory protection	<ul style="list-style-type: none"> ◦ OSHA 29 CFR 1910.134 and 139
5. Fall Protection	Any worker who might be exposed to a fall hazard	<ul style="list-style-type: none"> ◦ The nature of fall hazards ◦ Procedures for erecting, disassembling, maintaining and inspecting fall protection systems ◦ Use and operation of: guardrail systems, personal fall arrest systems, safety net systems, warding line systems, controlled access zones and other fall protection ◦ Fall protection standards
6. Personal Protective Equipment (PPE)	All employees	<ul style="list-style-type: none"> ◦ Refer to PPE policy or regulatory standards
7. Powered Industrial Trucks (Forklifts)	Operators of powered industrial trucks	<ul style="list-style-type: none"> ◦ Types of trucks operated ◦ Hazards of the workplace ◦ Hands-on performance evaluation

Topic	Who Needs Training	What Training is Needed
8. Confined Spaces	Any worker attending to, supervising, entering or working within a confined space	<ul style="list-style-type: none"> ◦ Hazards of the space ◦ Duties of entrants, attendants, supervisors ◦ Air monitoring
9. Permit-Required Confined Spaces	Any worker attending to, supervising, entering or working within a permit-required confined space	<ul style="list-style-type: none"> ◦ Hazards of the space ◦ Duties of entrants, attendants, supervisors ◦ Measures used to eliminate or control hazards ◦ Air monitoring requirements ◦ Emergency procedures/rescue equipment ◦ Communications ◦ Permitting procedure ◦ PPE
10. Excavations / Trenches	Workers entering or working within an excavation/trench	<ul style="list-style-type: none"> ◦ Hazards of the space (slides, cave-ins, water accumulation, etc.) ◦ Safe means of access/egress ◦ Proper support system procedures (erection, maintenance, disassembly and inspection)
11. Lockout / Tagout	Workers affected by hazardous energy sources	<ul style="list-style-type: none"> ◦ Nature of known hazardous energy sources ◦ Project-specific Lockout/Tagout procedures
12. Gas / Arc Welding & Cutting	Workers conducting welding and/or cutting	<ul style="list-style-type: none"> ◦ Procedures for unattended machines and electrode holders ◦ Operations around water ◦ Shielding arc welding ◦ The safe use of fuel gas ◦ Respiratory training ◦ Occupational exposure training (i.e. lead, welding fumes, hexavalent chromium)
13. Hot Work	Workers conducting hot work activities	<ul style="list-style-type: none"> ◦ Hazards of the area ◦ Permits ◦ Duties of fire watch ◦ How to use a fire extinguisher
14. Scaffolding	Workers working from scaffolding	<ul style="list-style-type: none"> ◦ The nature of any known hazards ◦ Proper erection, maintenance and disassembly of fall protection systems ◦ Falling object protection ◦ Material/equipment handling from scaffold ◦ Maximum load-carrying capacity ◦ Scaffold tagging system ◦ Access and egress

Topic	Who Needs Training	What Training is Needed
15. Crane Suspended Personnel Baskets	Workers working from crane baskets	<ul style="list-style-type: none"> ◦ Safety work rules ◦ 100% fall protection ◦ Lift plans contents ◦ Emergency procedures
16. Shipyards and Vessel maintenance	Workers performing maintenance of vessel, to include floating cranes, whether at our site or at a shipyard	<ul style="list-style-type: none"> ◦ Requirements of OSHA 29 CFR 1915 and 1926
17. Marine Operations	Employee working on or in the immediate vicinity of barges and other marine equipment	<ul style="list-style-type: none"> ◦ Marine operations ◦ Man-overboard procedures ◦ Vessel access ◦ Safety equipment (life buoy, PFD, safety skiff)
18. Flagger Training	Any worker directing traffic or heavy equipment	<ul style="list-style-type: none"> ◦ Proper PPE ◦ Knowledge of traffic control devices ◦ Purpose of traffic control devices ◦ Principles of traffic control devices ◦ Placement and operation of traffic control devices ◦ Maintenance of traffic control devices ◦ Authority for placement of traffic control devices
19. Mobile Elevating Work Platform (MEWP) Certified Operator Training	Any worker required to operate an aerial work platform	<ul style="list-style-type: none"> ◦ Safe operations ◦ Knowledge of safety devices ◦ Equipment inspection ◦ Hazard awareness ◦ Pre-start operational check ◦ Safe shutdown procedures
20. Silica Awareness	Any worker that is occupationally exposed to silica containing dusts generated as a result of concrete demolition, drilling, chipping or mixing operations	<ul style="list-style-type: none"> ◦ What crystalline silica is ◦ Common exposures to crystalline silica ◦ The hazards of crystalline silica ◦ What to expect in your workplace ◦ Permissible Exposure Limits ◦ Medical Monitoring Requirements
21. Small Spills and Leaks	Any worker that may potentially be involved with responding to a small spill or leak	<ul style="list-style-type: none"> ◦ Spill prevention ◦ Spill response ◦ Proper storage ◦ Proper handling ◦ Hazard identification

Topic	Who Needs Training	What Training is Needed
22. Rigging	Any worker involved with standard, major or critical lifts	<ul style="list-style-type: none"> ◦ Rigging plans ◦ Load characteristics ◦ Equipment requirements ◦ Environmental factors ◦ Inspections ◦ Lift preparation ◦ Role of the rigger ◦ Types of slings, shackles ◦ Communication systems
23. Hand / Voice Signaling	Any worker involved with communicating with heavy equipment operators to facilitate the movement of materials or equipment	<ul style="list-style-type: none"> ◦ Rigging awareness ◦ Equipment capabilities/limitations ◦ Hand signals ◦ Voice commands
24. Accident Investigations	Anyone participating in accident/incident investigations	<ul style="list-style-type: none"> ◦ How to respond to different types of accidents ◦ Conducting an investigation ◦ Techniques to get accurate results when interviewing witnesses ◦ Documenting findings and corrective actions ◦ Assessing accuracy of findings and effectiveness of corrective actions ◦ Implementing improvements

6. Competency Training

1. Competency training is not the same as an OSHA competent person. Competency training is the minimum training that each Skanska employee must complete before beginning an assigned task or function.
2. CWP's will be used as the basis for competency training. Any further training will be identified as part of the CWP process. Skanska and subcontractors will ensure their individual employees have received training prior to commencing an activity, and likewise subcontractor training will be subject to verification by Skanska at its discretion.

7. Additional Training Requirements

1. All Skanska salaried personnel with field operation responsibilities must complete and/or provide proof of OSHA 30 training within the first six (6) months of employment.
2. All Skanska employees identified as competent persons on the CWP are required to complete all associated web-based training modules or an equivalent program, approved by the local EHS Director. All training must be renewed every five (5) years.
3. Selected employees onsite will be required to have CPR/First Aid Training. The project team will determine the required number of First Aid/CPR trained employees onsite.
4. All Skanska personnel with field operation responsibilities may be required to complete one EHS training every other month.
5. Any project specific requirements for this section are listed here.
 - None

8. Documentation

1. All Skanska employee training will be documented and transmitted via email to the Skanska Learning Center administrator.
2. Subcontractor employee training records will be subject to verification by Skanska at its discretion throughout the duration of the project.

EHS Forms and Documents

- None

Training Links

- None



Communication

Objective

The objective of this procedure is to communicate our concern for the safety of all personnel, the environment and our desire to conduct business operations in a safe and environmentally sound manner to all employees, owners, suppliers and contractors. An additional objective is to communicate specific procedures and requirements to those owners, suppliers and subcontractors who provide goods and services associated with significant environmental aspects or known hazards. All written, external input regarding safety, health and environmental performance will be considered as being from an interested party. All such input will be processed in accordance with this procedure.

Procedure

1. All projects will establish a Project EHS Leadership Team, inclusive of all levels of project management and craft for both Skanska and subcontractors. The team shall:
 - Meet monthly and use project EHS Leadership Team agenda and maintain meeting minutes.
 - Conduct a site inspection and address all potential hazards/risk identified. Findings and corrective actions should be documented and evaluated for potential trends and repetitive items.
 - Hold special meetings when warranted and after all lost-time incidents.
 - Report program status to the regional office management team.
2. Internal Communication
 1. Skanska USA Civil, Inc. will communicate the following to employees:
 - Skanska's EHS policy and the SHEMS will initially be communicated through SHEMS awareness training. Changes or updates will be communicated by senior management.
 2. Each Skanska USA Civil, Inc. Region will create an EHS Leadership Team that meets on a monthly basis to set goals, policies and programs. Meetings may be held via teleconference; however, the team must meet in person at least once a quarter. See section Management Review meetings for guidance on monthly meeting requirements.
 3. The table in the Management Review/Meetings section of this Manual outlines the meeting frequency and attendees at each level of the organization in order to establish, implement and maintain a process(es) for monitoring, measuring, analyzing and evaluating performance.
3. External Communication
 1. Skanska USA Civil, Inc. will communicate the following information to external parties:
 - Our concerns about EHS issues and desires to conduct business operations in a safe and environmentally sound manner.
 - That we have an EHS Management System (SHEMS) that is accredited through an ISO 14001 and ISO 45001 Registrar. Relevant sections of the SHEMS will be communicated to subcontractors during the contract award process, orientation training and SHEMS Awareness Training.
 - That we encourage our owners, suppliers and subcontractors to provide, at the same quality and price, products and services that have safe working conditions and the least environmental consequence of all available options.
 2. Skanska will communicate the following to suppliers:
 - Where a supplier's product is creating a significant hazard/impact, the supplier should select the available option that minimizes the potential environmental impact or safety hazard.
 - Where an owner, supplier or subcontractor is supplying goods or services associated with EHS aspects, the project will work with procurement to inform that party of applicable requirements to mitigate, minimize or otherwise control the potential EHS impacts.
 3. Communications with owners, suppliers and contractors are part of the subcontract agreement.
 4. All written, external inquiries concerning EHS performance will be directed to the Skanska EHS Department and, when appropriate, to the Skanska Communications Department, which will:
 - Coordinate with the Operating Unit/Region's most senior EHS representative to evaluate the substance of the external communication and make a determination of whether the communication pertains to an existing significant aspect or hazard, or to one that may need to be added into the SHEMS.
 5. Following this evaluation, the EHS department, or designee, will respond appropriately to the external interested party in a timely manner.
 6. All external communications will be kept for consideration when establishing and reviewing safety and environmental objectives and targets for the SHEMS and will initiate any necessary changes to the SHEMS.

Documentation

1. Regional EHS Leadership Team meeting documentation will be maintained at the regional office.
2. Project EHS Leadership Team meeting documentation will be maintained in accordance with Skanska's document retention program, and will be housed with the project records.
3. The EHS Department will document the contents and outcome of the external inquiry and records will be maintained in Intelex.



Incident Investigation

Objective







The project team will conduct an incident investigation following all EHS incidents that occur on a project in order to identify root causes, develop corrective and preventive actions, and communicate lessons learned to prevent future occurrences.





Procedure



1. Following an incident, including near miss, project management and/or a Skanska EHS representative will investigate the incident and conduct a post incident review. The investigation will:
 - Provide a specific description of the incident, including any underlying deficiencies, root causes and other factors that may have caused or contributed to the incident.
 - Identify the need for corrective action and preventative action.
 - Identify opportunities for continual improvement.
 - Communicate preventative actions and lessons learned.
2. All serious accidents, near misses, lost time accidents, potential fatalities and serious environmental breaches must be followed by a Flash Report.
3. EHS Directors will review preventative actions to determine effectiveness and initiate policy changes when necessary.
4. If the incident investigation identifies a process or procedural failure, it will be addressed in accordance with the nonconformance, corrective action and preventive action section.

Documentation

1. All incident investigation documentation will be maintained in Intelex.
2. Records of system improvements will be maintained at each regional office.
3. Incident investigation and reporting should follow the protocol matrix below:

	Incident/Injury Reporting					
What	First Aid	Medical Treatment	Lost Time Incident	Potential Fatality	Near Miss Incident	Environmental Incident
From	PM/Supt.	PM/PS	Exec	Exec	PM/PS	PM/PS
To	EXEC, EHS Dir/EHS VP	EXEC, EHS Dir EHS VP, GM/REO	EHS Dire/EHS VP/EHS Chief, GM/REO/CEO	EHS Dire/EHS VP/EHS Chief, GM/REO/CEO	EXEC, EHS Dir/EHS VP, GM/REO	EXEC, EHS Dir/EHS VP, GM/REO
How						
Time	24 hours	8 hours	1 hour	2 hours	8 hours	1 hour

	General Liability Reporting		Incident Recording	
What	Auto/motor/fleet incident	Prop. damage/public liability	Written report	Statements (claimant/witness)
From	PM/PS	PM/PS	EHS Manager	EHS Manager
To	EXEC, EHS Dir/EHS VP, SVP GM	EXEC, EHS Dir/EHS VP, SVP GM	Intelix	Intelix
How				
Time	24 hours	24 hours	24 hours	24 hours

	Post Incident Meeting	Post Incident Review
What	First Aid*, Recordable, Lost-time or Near Miss Incident	Recordable, Lost-time or Near Miss incident, any incident requested by EHS Dir.
From	Project Team	All – EHS Chief, BP, Dir. Have final approval
To	Project manager, all superintendents, project engineer, safety manager, all foremen	Regional/Operating Unit Officer
How		
Time	Close of business	5 days

*where an employee leaves the site for treatment of evaluation PS or designee to accompany



Audits

Objective

The objective of this procedure is to provide guidance for conducting SHEMS audits at our jobsites, which determine proper implementation and maintenance of both the ISO 14001 and ISO 45001 standards as well the project policies and procedures.

Legal and Other Requirements

Federal, State, Local Regulations

- None

Skanska/Client Requirements

- None

Procedure

1. Project Assessment System (PAS) reviews are intended to be an informal assessment to measure conformance and identify areas of improvement when implementing SHEMS. They are not intended to replace Internal Audits (IA) as IAs are designed to measure and monitor the SHEMS objectives in order to comply with ISO standards.
2. PAS reviews are to be conducted in the following manner:
 - At a minimum and beginning at the onset of each calendar year, projects that are greater than three (3) months in duration will receive a PAS review.
 - The review should be conducted by the EHS personnel not assigned to the project in order to provide an external perspective.
 - The PAS checklist will be utilized to assess conformance to the SHEMS.
 - Findings from the PAS review are to be reviewed with the project team and should be discussed at the next Monthly Project Management Review
3. IAs are to be conducted in the following manner:
 - At a minimum and beginning at the onset of each calendar year projects that are greater than twelve (12) months in duration will receive an IA
4. The purpose of the IA is to assess:
 - Whether the project conforms to Skanska's Environmental, Health and Safety Policies, Procedures and Standards.
 - Whether the SHEMS is being effectively implemented and maintained.
5. Internal auditors will rely on the following to assess conformance to the ISO 14001 and 45001 Standards:
 - Project records related to the functioning of the SHEMS and its objectives and targets.
 - Interviews with employees.
 - Observations of operating conditions to gauge EHS status and conditions on a site.
6. The IA checklist will be utilized to assess conformance to the ISO 14001 and 45001 standards. Findings identified during the assessment will be documented in accordance with the Non-Conformance, Corrective Action and Preventative Action process.
7. Regional leadership may elect to increase the frequency of PAS reviews and IAs based on the risk and performance of the work irrespective of project duration. Regional Leadership direction to increase frequency must be documented in the Regional Monthly Management Review.

Responsibilities

1. EHS
 - Maintain a list of projects that qualify for audits
 - Maintain a schedule of audits
 - Select the auditor/audit team to ensure objectivity
 - Maintain documentation of auditor training
 - Be the point of contact for all communications with the registrar inclusive of scheduling the external audits
 - Coordinate external audit closing meeting (in person or via teleconference) with the respective Business Unit (BU) Senior Management Team and the project teams

- Communicate all external audit reports to respective BUs inclusive of any potential non-conformances and corrective actions required to be taken by the affected BU
- Ensure all findings are documented and closed out
- Maintain audits

2. Auditor/Audit Team

1. Auditors will receive auditor training and will have relevant work experience of at least five (5) years in EHS management. The audit may be conducted by a sole auditor or by a team. If conducted by a team, a lead auditor will be designated. The auditor/audit team is responsible for issuing/distributing a formal audit report within five (5) working days to the following:
 - The project team (inclusive of all who attended either the opening or closing meeting, Vice President/Project Executive, Project Manager, General Superintendent)
 - Regional EHS leads
 - Corporate EHS

Documentation

1. All audit records will be maintained in Intelex.



Nonconformance, Corrective Actions and Preventative Actions

Objective

Following any deviations from established procedures and programs related to the SHEMS or whenever a non-conformance in the SHEMS is detected, a corrective and preventive action report will be completed.

Classifications for Nonconformance

1. Major Nonconformance Classification
 1. Report any systemic failure in the implementation of the SHEMS. For example:
 - Environmental aspects and hazard identification is not taking place.
 - Required documents are not maintained.
 - Construction planning, monitoring and measuring are not being implemented or are partially being implemented at site.
 - Training and management review/EHS meetings are not being conducted as per procedure.
 - Several similar minor nonconformances exist in documentation and/or implementation of a specific procedure or element of the ISO standards.
2. Minor Nonconformance Classification
 1. A single observed nonconformance to the SHEMS that is not considered to be a breakdown. For example:
 - Obsolete versions of policy are observed at the site.
 - Gaps exist in documented evidence of conformance.
 - Obsolete versions of SHEMS and its controlled documents are being utilized.
 - Orientation is not being conducted timely and consistently.
 - Roles and responsibilities have not been defined and communicated.
3. Opportunity for Improvement (OFI) Classification
 1. A finding not determined to be a nonconformance but that could be an enhancement of EHS programs.
4. Event
 1. This is an unanticipated occurrence onsite that has the potential to become a nonconformity if not addressed.

Procedure

1. The project team is responsible for responding to a nonconformance.
 1. Nonconformance will be addressed at monthly project management review meetings.
2. The auditor/audit team is responsible for issuing/distributing a formal audit report within five (5) working days to the following:
 - The project team (inclusive of all who attended either the opening or closing meeting, Vice President/Project Executive, Project Manager, General Superintendent)
 - Regional EHS leads
 - Corporate EHS
3. Within five (5) days of the auditor's findings being reported, the project team will complete and submit for approval a Corrective Action Report (CAR), which includes a root cause analysis and corrective and preventive actions required to mitigate the nonconformance.
4. The project team is responsible for ensuring that the correction is completed.
5. Any corrective action taken to eliminate the cause of nonconformance will be appropriate to the magnitude of the finding.
6. When additional time is required to complete the investigation and to identify corrective and preventive actions, the project team will notify their EHS Director who will determine the timeline for completion of the CAR.
7. Preventative and corrective actions will be reviewed at the management review meetings to assess implementation and effectiveness, with revisions made as needed.
8. Documentation of NCRs and CARs will be maintained in Intellex.



Emergency Preparedness

Objective

The company will implement procedures to identify and respond to an EHS emergency in order to minimize the potential negative impact. Each project will be responsible for coordinating its emergency response procedures.

Procedure

1. Each project team will:
 - Consider all activities and hazards when developing the project-specific Emergency Action Plans (EAP), Crisis Management Plan (CMP) and Environmental Compliance Plans (ECP).
 - Identify a local environmental response contractor.
 - Provide the necessary resources and equipment available to manage minor EHS incidents (first aid kits, spills kits, properly trained personnel, etc.)
 - Post emergency phone numbers in visible locations on site.
 - Communicate the plan to all site personnel.
2. The EAP will include:
 - Emergency escape routes
 - Emergency signals
 - Assembly points
 - Spill kit locations
 - Designated lines of authority
3. The plan will be tested at least every six (6) months. Following any emergency response or drill, a debrief will be conducted to determine if EAP is effective.

Documentation

1. A template EAP and ECP are available for use in Intelex Document Control.

All EAP training, the critique of all emergency drills and incident reports will be recorded and maintained with the project records.



Management Review

Objective

This procedure specifies senior management review of the Safety, Health and Environmental Management System (SHEMS) at planned intervals to ensure its continuing effectiveness, suitability and adequacy, and provides for its continual improvement at the corporate and project level.

Procedure

1. All non-project based executives and above will attend Monthly Project Management Review Meetings at a frequency directed by Regional Leadership. The frequency directed by Regional Leadership will be documented in the Annual Regional Monthly Management Review.
2. Project based executives are required to attend their own Monthly Project Management Review Meeting. In addition, the executives are required to attend peer projects' Monthly Project Management Review Meetings as directed by Regional Leadership. The frequency directed by Regional Leadership will be documented in the Annual Regional Monthly Management Review.
3. Annual Skanska/Business Units/Regional Management Meeting Review will utilize the following designated agenda to comply with ISO 14001 and 45001:

Agenda:

- Values Moment. *Example – A real life experience that relates to the core values of Skanska.*
- Review open items from previous management reviews. *Previous minutes are to be reviewed. All outstanding action items are to be discussed and documented with status updates.*
- Review of changes to the SHEMS as a result of:
 - Internal or external stakeholders.
 - *Has the program been modified based on feedback from operations personnel, EHS professionals or other internal clients?*
 - *Has the program been updated based on external changes in the industry (e.g., equipment advancements, safety initiatives or new technology)?*
 - Have there been changes in law that may affect interpretations of SHEMS? Have we maintained compliance with OSHA standards?
 - Are there any significant environmental aspects or regulatory action that require a modification to the program?
 - Has the program been modified to address specific risks and opportunities that have been identified since the last management review?
- Review EHS performance: *This is to include discussion as to whether monthly or annual objectives and targets are being met (e.g., EHS Dashboard). Where issues are detected, alternative solutions should be discussed with a goal of improving performance.*
 - Review lagging and leading performance indicators (e.g. BU dashboards).
 - Audit results, closure of non-conformities and implementation of corrective actions.
 - Review audit results.
 - Review any non-conformities issued from previous internal/external ISO audits.
 - Review opportunities for improvement issued from internal/external ISO audits.
 - Review findings from recent incident investigations (potential fatalities, serious near misses/employee injuries) and the implementation of corrective and preventative actions.
 - Review effectiveness and the status of close out for corrective actions.
 - Has the program been reviewed by internal stakeholder groups to solicit feedback? Is there a mechanism to capture suggestions, recommended changes or errors in the program?
 - What opportunities and risks have been identified based on performance indicators and internal stakeholder feedback?
- Has the adequacy of resources been provided to implement the program as intended (e.g., organizational structure, leveraging technology, potential partnerships or other external resources)?
- Have there been any relevant communication(s) to internal or external stakeholders on EHS policy changes, performance updates or other feedback?
- What are areas of improvement to be focused on to drive continual improvement of the SHEMS program?

The following Conformance table illustrates SHEMS management review conformance with ISO-requirements.

ISO Requirement	BU	Project
ISO 45001 and ISO 14001: 9.3 Management Review Requirements	USA/BU/Regional Management Review Agenda Item	Project Management Review Agenda Item
a) the status of actions from previous management reviews;	2. Review open items from previous management reviews.	2. Review open items from previous management reviews.
b) Changes that are relevant to the environmental and OH&S management system including:	3. Review of changes to the SHEMS as a result of:	3. Review of changes to the SHEMS:
external and internal issues that are relevant to the environmental and OH&S management system;	a. Internal or external stakeholders. • Has the program been modified based on feedback from operations personnel, EHS professionals or other internal clients?	a. Have any changes been made to the system as a result of issues identified? Have these changes been communicated?
the needs and expectations of interested parties, including compliance obligations;	• Has the program been updated based on external changes in the industry (e.g. equipment advancements, safety initiatives or new technology)?	d. Fulfillment of its project's compliance obligations. • Review of compliance audits and field observations – positive findings and compliance issues • Review the projects Emergency Action Plan and Environmental Compliance Program
legal or other requirements;	b. Have there been changes in law that may affect interpretations of SHEMS? Have we maintained compliance with OSHA standards?	b. Are all legal requirements identified for current and upcoming work and is the project in compliance (Federal, State, Local laws / Client Requirements)?
changes in significant environmental aspects;	c. Are there any significant environmental aspects or regulatory action that require a modification to the program?	c. Ensure all environmental aspects and risks associated with the project have been identified in your project manual. Discuss any changes needed to be made or new risks identified that would require a revision to the manual.
risks and opportunities;	d. Has the program been modified to address specific risks and opportunities that have been identified since the last management review?	d. Status and quality of Construction Work Plans and Daily Hazard Analysis – Communication of risk assessments and opportunities for improvement. e. Have all training requirements for the current and upcoming work been met? Assess the risk associated with the work and ensure that all applicable training is in place or scheduled.
c) the extent to which OH&S policy and the OH&S and environmental objectives have been met;	4. Review EHS performance: a. Review lagging and leading performance indicators (e.g. USA/BU dashboards).	4. Review project EHS performance: a. Review project lagging and leading performance indicators (e.g. project dashboard). c. Monitoring and measurement results. d. Environmental targets
d) information on the OH&S and environmental performance, including trends in:	4. Review EHS performance:	4. Review project EHS performance:

incidents, nonconformities, corrective actions and continual improvement;	b. Audit results, closure of non-conformities and implementation of corrective actions. <ul style="list-style-type: none"> • Review audit results • Review any non-conformities issued from previous internal/external ISO audits • Review opportunities for improvement issued from internal/external ISO audits • Review findings from recent incident investigations (potential fatalities, serious near misses/employee injuries) and the implementation of corrective and preventative actions • Review effectiveness and the status of close out of corrective actions 	b. Audit results, closure of non-conformities and implementation of corrective actions. <ul style="list-style-type: none"> • Review audit results – PAS/internal/external • Review any non-conformities issued from previous internal/external ISO audits • Review opportunities for improvement issued from internal/external ISO audits • Review findings from recent incident investigations and the implementation of corrective and preventative actions • Review effectiveness and the status of close out of corrective actions
monitoring and measurement results;	4. Review EHS performance: a. Review lagging and leading performance indicators (e.g. USA/BU dashboards).	4. Review project EHS performance: a. Review project lagging and leading performance indicators (e.g. project dashboard). c. Monitoring and measurement results o Environmental targets
fulfillment of its compliance obligations; results of evaluation of compliance with legal requirements and other requirements	b. Audit results, closure of non-conformities and implementation of corrective actions. <ul style="list-style-type: none"> • Review audit results • Review any non-conformities issued from previous internal/external ISO audits 	d. Fulfillment of its project's compliance obligations. <ul style="list-style-type: none"> • Review of compliance audits and field observations – positive findings and compliance issues • Review the projects Emergency Action Plan and Environmental Compliance Program
audit results	<ul style="list-style-type: none"> • Review opportunities for improvement issued from internal/external ISO audits • Review findings from recent incident investigations (potential fatalities, serious near misses/employee injuries) and the implementation of corrective and preventative actions • Review effectiveness and the status of close-out of corrective actions 	b. Audit results, closure of non-conformities and implementation of corrective actions. <ul style="list-style-type: none"> • Review audit results – PAS/internal/external
consultation and participation of workers	c. Has the program been reviewed by internal stakeholder groups to solicit feedback? Is there a mechanism to capture suggestions, recommended changes or errors in the program?	6. Have there been any relevant communication(s) from interested parties, including complaints/feedback/suggestions? a. Is a project EHS Safety Leadership Team in place and what are some of the agenda items covered from your last meeting and the status of open items?

risks and opportunities	d. What opportunities and risks have been identified based on performance indicators and internal stakeholder feedback?	d. Status and quality of Construction Work Plans and Daily Hazard Analysis – Communication of risk assessments and opportunities for improvement. e. Have all training requirements for the current and upcoming work been met? Assess the risk associated with the work and ensure that all applicable training is in place or scheduled.
e) adequacy of resources for maintaining and effective OH&S and environmental management system	5. Has the adequacy of resources been provided to implement the program as intended (e.g., organizational structure, leveraging technology, potential partnerships or other external resources)?	5. Has the adequacy of resources been provided to implement the program as intended? a. Does the project team have what they need (staff to cover roles and responsibilities spelled out, equipment, other resources, etc.) to effectively run the program?
f) relevant communication (s) with interested parties;	6. Have there been any relevant communication(s) to internal or external stakeholders on EHS policy changes, performance updates or other feedback?	6. Have there been any relevant communication(s) from interested parties, including complaints: • Is a Project EHS Safety Leadership Team in place and what are some of the agenda items covered from your last meeting and the status of open 6. Have there been any relevant communication(s) from interested parties, including complaints/feedback/suggestions? a. Is a Project EHS Safety Leadership Team in place and what are some of the agenda items covered from your last meeting and the status of open items? b. Any complaints from owners, clients, agencies or community must be reviewed as part of the meeting. c. Review any formal responses and corrective actions if applicable. • Any complaints from owners, clients, agencies or community must be reviewed as part of the meeting. • Review any formal responses and corrective actions if applicable.
g) opportunities for continual improvement	7. What are areas of improvement to be focused on to drive continual improvement of the SHEMS program?	7. What are areas of improvement to be focused on to drive continual improvement of the SHEMS program?

4. The following table outlines the meeting frequency and attendees at each level of the organization in order to establish, implement and maintain a process(es) for monitoring, measuring, analyzing and evaluating performance:

Skanska USA INC.			
Meeting	Frequency	Attendees	Guidance
USA Management Review	Annually	USA/CD/USB/USC; • Governance Committee	• See designated agenda to comply with ISO 14001/45001 - 9.3 Management Review
BUSINESS UNIT			

Business Unit Management Review	Annually	CD/USB/USC: <ul style="list-style-type: none"> • SLT • BUPs • Civil: EVP • Building: REOs, COO • EHS Nat. VP 	<ul style="list-style-type: none"> • See designated agenda to comply with ISO 14001/45001 - 9.3 Management Review • Can be held in conjunction with one of the monthly SLT meetings
REGIONAL			
Regional Management Review	Annually	CD/USB/USC: <ul style="list-style-type: none"> • Civil: GMs, EVPs, EHS VP, EHS Dir. • Building: AMs/REOs, GMs, Ops VP, EHS VP, EHS Dir. 	<ul style="list-style-type: none"> • See designated agenda to comply with ISO 14001/45001 - 9.3 Management Review • Can be held in lieu of or in conjunction with one of the monthly Regional EHS Leadership Team meetings
Regional EHS Leadership Team	Monthly	<ul style="list-style-type: none"> • Representation of regional senior management (e.g. GM, AM, VP Ops, PX, EHS Dir.) • Optional members (e.g. PM, PE, Supts, PSGs, etc.) 	<ul style="list-style-type: none"> • Follow regional leadership direction in terms of agenda and topics covered in this discussion • Some regions refer to this as the Corporate Safety Committee meeting
PROJECT			
Project Management Review	Monthly	<ul style="list-style-type: none"> • Representation from Skanska project management (e.g. PX, PM, PE, Superintendents, EHS) 	<ul style="list-style-type: none"> • See designated agenda to comply with ISO 14001/45001 - 9.3 Management Review • Can be held in conjunction with project staff/coordination meeting
Project EHS Leadership Team	Monthly	<ul style="list-style-type: none"> • Representation from Skanska project management (e.g. PX, PM, PE, Superintendents, EHS) • Craft and Subcontractor representation 	<ul style="list-style-type: none"> • Can be held in conjunction with monthly Project Management Review meeting • Some regions refer to this as the project Corporate Safety Committee meeting



Document Control

Objective

The purpose of this procedure is to ensure that only authorized and current documents are used to implement the requirements and that records are properly prepared, maintained, retained and disposed.

Procedure

1. The following is to outline protocols that apply to potential changes that may be needed to effectively implement the EHS Manual at all levels.
 1. The EHS Manual and all associated documents will be controlled at the Skanska USA Civil, Inc. level.
 2. All projects will implement the most current version of the EHS Manual available in Plant.
 3. Skanska will maintain a national library for all current documents that are applicable to the implementation of the EHS Manual. The library will be managed by the EHS Leadership team (Skanska USA Civil, Inc.).
 4. EHS related documents will be reviewed periodically and revised as needed by the EHS Leadership team (Skanska USA Civil, Inc.).
 5. Updated documents will be communicated by the EHS Leadership Team (Skanska USA Civil, Inc.) to project teams.
 6. Regional specific addenda to the EHS Manual will be identified as such and maintained at the regional level by the EHS Director.
 7. Project-specific documents will be identified and maintained at the project level.

Documentation

1. All documents and records will be legible, identifiable and easily retrieved for review.
2. Documents and records will be maintained at all projects through a combination of hard copies and electronic copies.
3. All documents and records will be retained through the life of the project or otherwise as required by law or by contract.

Policies



Accountability Policy

Objective

The project's Accountability Policy details the minimum standards all personnel (located at the site or otherwise) are required to observe regarding EHS issues. Regional policies may exceed the minimum requirements as the region deems necessary. For the purpose of this policy, a day suspended, is defined as a regularly scheduled work day suspended.

1. ***Adherence to EHS Policies Regarding Dangers***

That ARE Immediately Dangerous to Life and Health ("IDLH")

1. All personnel shall adhere to all EHS policies that protect against immediate dangers to life and health. Examples of such policies include, but are not limited to, those regarding fall protection, exposure to electricity, caught in-between hazards, struck by hazards, lockout/tag out hazards, exposure to unsafe trench excavation, failure to locate utilities pre-excavation, use of ear buds and confined space hazards and, when determined by Project Leadership, failure to adequately plan safe work through the use of the Construction Work Plan and Daily Hazard Analysis tools. While Skanska does not generally follow a progressive disciplinary practice, Skanska employees are, except as otherwise agreed in an applicable Collective Bargaining Agreement ("CBA") or Project Labor Agreement ("PLA"), subject to the following disciplinary actions for violations of any EHS policy designed to protect against immediate dangers to life and health:
 - First Offense: Three (3) day suspension without pay
 - Second Offense: Twenty (20) day suspension without pay
 - Third Offense: Termination
2. Contractor may impose more serious penalties upon its offending employees if it deems such action to be appropriate for violations covered by this provision.
3. Subcontractors are likewise responsible for managing, supervising and disciplining subcontractor workers who fail to adhere to applicable EHS policies and rules set forth in this EHS Manual, provided that Skanska may take actions necessary to address imminent threats to life and health and, if a subcontractor fails to take timely or appropriate corrective action, Skanska may, consistent with the terms of the applicable subcontract, bar from the project site any such subcontractor worker who poses a safety risk to the project.

2. ***Adherence to EHS Policies Regarding Activity***

NOT Immediately Dangerous to Life and Health ("Non – IDLH")

1. All site personnel shall adhere to all EHS policies, including, but not limited to PPE requirements, equipment/tool inspections, use of tools, rebar caps and housekeeping.
2. While Skanska does not generally follow a progressive disciplinary practice, Skanska employees are, except as otherwise agreed in an applicable ("CBA") or ("PLA"), subject to the following disciplinary actions for violations of any EHS policy that is not designed to protect against immediate dangers to life and health:
 - First Offense: Written reprimand
 - Second Offense: One (1) day suspension without pay
 - Third Offense: Three (3) day suspension without pay
3. Skanska may impose more serious penalties upon its offending employees if it deems such action to be appropriate for violations covered by this provision.
4. Subcontractors are likewise responsible for managing, supervising and disciplining subcontractor workers who fail to adhere to applicable EHS policies and rules set forth in this EHS Manual, provided that Skanska may take actions necessary to address imminent threats to life and health and, if a subcontractor fails to take timely or appropriate corrective action, Skanska may, consistent with the terms of the applicable subcontract, bar from the project site any such subcontractor worker who poses a safety risk to the project.

3. ***Imposition of Discipline on Contractor Employees***

1. The level of offense will be considered over a rolling one (1) year period looking back from the date of each offense.
2. The foregoing discipline policy shall be applicable to all Skanska supervisory personnel in relation to their respective obligation to properly and adequately manage their workforce so that they conduct themselves in a safe manner and in accordance with this EHS policy. Accordingly, should employees under the management of Skanska supervisory personnel commit multiple (i.e. more than one (1)) IDLH or Non-IDLH offense as stated above during a given one (1) year period, said multiple offenses may be construed as a violation of the workplace rule requiring supervisors to properly manage and maintain a safe working environment in accordance with this EHS policy and may result in the supervisor being subject to discipline as set forth herein.

3. With respect to supervisory personnel being indirectly associated with any single EHS policy violation constituting a danger that is either an IDLH or Non-IDLH by employees under his or her direct or indirect supervision and management, the supervisor may be disciplined by way of no less than a five (5) day suspension without pay. However, shorter suspension periods without pay for the supervisor may be considered in such situations where a supervisor could be considered directly involved due to the required roles and responsibilities outlined in the SHEMS.
 4. The above is the minimum guideline. All offenses will be reviewed and more severe discipline may be implemented when conditions warrant.
 5. Prior to any discipline being implemented, the proposed disciplinary action will be discussed with Human Resources and approved at or above the Project Executive level. The level of discipline imposed shall be documented for the employee file.
 6. All disciplinary actions resulting in a suspension are to be reviewed and approved by the Project Leadership.
 7. Skanska employees who are terminated for EHS non-compliance will not be deemed eligible for rehire for a minimum of six (6) months. The rehire of employees terminated for failure to comply with EHS policies requires Skanska approval at the senior management level, and such decision shall be made in consultation with Human Resources.
4. If in the judgment of the Skanska's project team, the extenuating circumstances of an individual incident warrant not adhering to the guidelines above, the team can petition an appropriate member of Skanska's senior management for relief from the guidelines. Only a member of Skanska's senior management, in consultation with Skanska's Legal Department and HR, can authorize deviations from these guidelines, except as expressly provided above.



Cell Phone Smart Device User Program

Objective

When site personnel use communication technology on project sites, they are expected to utilize it in a safe, prudent manner that in no way jeopardizes the safety of themselves or others or puts equipment, facilities or other materials at risk.¹

Legal and Other Requirements

Federal, State, Local Regulations

- All site personnel shall comply with all applicable federal, state and local laws and regulations regarding the use of cell phones/smart device usage while driving.

Skanska/Client Requirements

- None

Procedure

1. While Operating Vehicles or Equipment

1. The following policy applies to all project personnel, including Skanska and subcontractor employees.
2. Subcontractor management shall ensure that subcontractor employees are aware of and compliant with this Policy.
3. Members of Skanska's project management team may purchase appropriate hands-free smart devices for use by Skanska USA Civil, Inc. employees with the approval of the Project Executive for that site.
4. Members of Skanska management shall ensure that Skanska employees are aware of and compliant with this Policy and the related policy contained in any Handbooks.
5. Project Management shall ensure that cell phones, tablets and smart devices are being used in a safe manner when they must be utilized as part of the work. Project Management shall ensure that signage shall be posted where cell phones and smart device use is prohibited, and identify tasks that are not to be performed while using those devices, such as texting or emailing while driving, to the extent those activities are not already addressed by this Policy or in Handbooks.
6. In no event shall the use of wired or wireless earpieces (earbuds, Bluetooth, etc.) in connection with cell phones, smart devices or music players be permitted in active work zones.
7. The use of a cell phone for personal use (such as phone calls/social-media/data) and/or earbuds, ear pods, earphones, neck Bluetooth and any other smart device during working hours is not permitted in any construction/activity areas. The use of cell phones for personal use is limited to designated areas and/or outside of the construction site. Any person requiring the use of a cell phone, tablet or smart device as a tool for their work can only use them in a stationary position at a location in which the use of the device would not create a hazard to themselves or other employees.
8. All site personnel, while operating a company fleet vehicle, whether company owned or rented, shall utilize a cell phone "Hands Free" product, whether portable or permanently installed in a vehicle or piece of equipment.
9. Use of cell phones and smart devices in vehicles while on site is only permitted when the vehicle is parked (e.g., a cell phone or smart device may not be used when temporarily stopped at a traffic light).
10. Any person requiring the use of a cell phone, tablet or smart device as a tool for their work can only use them in a stationary position at a location in which the use of the device would not create a hazard to themselves or other employees.
11. Cell phones, tablets and smart devices may never be used when operating heavy machinery.
12. The use of personal cell phones, tablets and smart devices and/or personal audio devices is subject to the same restrictions as Skanska-issued cell phones, tablets and smart devices.
13. Personal cell phones, tablets and smart devices and/or personal audio devices may never be used when operating any equipment or machinery on an active project site.
14. The use of personal cell phones, tablets and smart devices and/or personal audio devices may be entirely prohibited, in Skanska management's discretion, while on a project worksite if such use creates a safety risk.
15. The use of personal cell phones by Skanska employees shall be limited to designated breaks and lunch periods.
16. Regardless of whether personal cell use is permitted on break or in designated areas, in no event shall the use of earbuds or headphones of any type be permitted on the project worksite. The use of earbuds or headphones shall be considered an IDLH condition and the requirements of the accountability policy shall apply.

2. In the event of an emergency requiring the use of communication equipment, comply with the project's emergency response

plan and communication protocol.

3. Any project specific requirements for this section are listed here.

- None

¹ In the event this Policy is inconsistent with any information in any Skanska Employee Handbook and/or any applicable joint venture employee handbooks (together, the "Handbooks"), the more stringent safety requirement shall govern as to Skanska employees to the extent necessary to remove the conflict or inconsistency



EHS Policies Specific to Subcontractors

Objective

Each subcontractor shall participate in and enforce the project-specific environmental, health and safety programs that shall cover all work performed by it and its sub-subcontractors. Subcontractors shall comply with all applicable federal, state and local EHS requirements.

Legal and Other Requirements

Federal, State, Local Regulations

- None

Skanska/Client Requirements

- None

Procedure

1. Project Management shall:

1. Inform subcontractors of the policies and rules contained in this EHS Manual.
2. Ensure subcontractors have met Business Unit prequalification criteria prior to being allowed to work on a project.
3. Conduct a preconstruction EHS meeting utilizing the Subcontractor Kick-Off Meeting Agenda Form with all tier subcontractors to inform them of the project-specific program. Owners and union business agents may also need to be invited, pending approval of site management and the EHS Director.
4. Provide subcontractors with access to Skanska's PlanIt tool to develop a CWP.
5. Review the subcontractor's written CWP, with the understanding that Skanska may reject any CWP that does not comply with the requirements of this EHS Manual.
6. Conduct inspections of subcontractor operations to encourage compliance with applicable regulations and policies.
7. Request that subcontractors attend Project SHEMS Leadership Team meetings.
8. Conduct subcontractor EHS meetings as they deem necessary.
9. Any project specific requirements for this section are listed here.
 - None

2. Subcontractor shall:

1. Attend the preconstruction EHS meeting held by Skanska USA Civil, Inc. project management.
2. Provide a copy of their CWPs to include task-specific activities and associated competent persons.
3. Submit all CWPs to Skanska project management for review one week prior to the commencement of each activity.
4. Ensure that subcontractor employees and workers have all necessary training for the assigned tasks.
5. Submit applicable employee training records to Skanska prior to work commencing.
6. Attend a Skanska jobsite orientation at the commencement of employment (all subcontractor employees and tier subcontractor employees).
7. Prepare Daily Hazard Analysis (DHA) prior to the commencement of each daily activity.
8. Provide all required PPE to their employees, instruct employees on proper use, and ensure use/implementation at all times.
9. Provide adequate safety measures against occupational exposures such as gases, fumes, vapors, dusts, chemicals and noise levels, including potential exposures to individuals in the vicinity of the work being performed.
10. Provide all applicable occupational monitoring documentation, including but not restricted to, exposure assessments, employee blood levels and proof of respirator fit tests (including tier subcontractors).
11. Maintain documentation that verifies that its EHS program is in compliance with applicable federal, state, local and project safety requirements. Documentation shall be made available upon request by Skanska.
12. Conduct periodic safety observations and take corrective actions for recognized hazards. Report unsafe conditions outside their scope of work to Skanska personnel.
13. Implement immediate corrective action to eliminate unsafe practices and conditions when they are observed or reported, in accordance with Skanska's Accountability Policy.
14. Investigate all incidents resulting in a near miss, personal injury, general liability, negative environmental impact and third-party claims.

15. Submit to Skanska in writing within 24 hours any incident findings, including root cause, corrective action and preventative action.
 16. Conduct weekly toolbox safety meetings (job foremen) for all site employees under their supervision with sign off and submission to the Skanska project team.
 17. Attend Skanska's Project SHEMS Leadership Team meeting on a monthly basis with the representatives of the various trades employed, to ensure that all employees understand and comply with the safety programs.
 18. Submit monthly safety performance report by the 5th of every month, to include hours worked and all incidents, or utilizing online reporting or paper copies of Skanska's Daily Report (where available).
 19. Designate an EHS representative prior to mobilization.
 - Each subcontractor expected to have less than 30 workers onsite will designate an EHS representative.
 - This onsite EHS representative will be a competent worker who has completed at least 30 hours of OSHA awareness training and who may have other onsite duties.
 20. Have a plan in place to onboard an onsite full-time EHS professional once the subcontractor's headcount reaches thirty (30) or more workers (including workers of lower tier subcontractors) on the project. Subcontractor will also provide details for additional EHS Staffing when workers may exceed 150 or when activities are deemed high risk by Skanska.
 - In the event this policy conflicts with or is inconsistent with the applicable subcontract, the more stringent requirement shall govern to the extent necessary to remove the conflict or inconsistency.
 21. Submit the resume of their proposed EHS professional or representative to be reviewed by Skanska.
 - Skanska will have the right to object to the use of the proposed EHS professional or representative if he/she does not have the training and experience required for this project.
 - The subcontractor's designated EHS professional or representative will have the authority and responsibility to ensure the proper implementation of the policies and rules in this EHS Manual.
 - Subcontractor full time onsite EHS professionals shall have the following minimum qualifications:
 - Three (3) years construction safety experience
 - Onsite full time and have no other responsibilities other than environmental, health and safety
 - Specialized training relevant to scope of work
 - Minimum of OSHA 30-hour construction safety awareness course
 - Working knowledge of EHS regulations and hazard control methods
 - Demonstrated ability to conduct EHS training
 22. Comply with project emergency action plan.
 23. Any project specific requirements for this section are listed here.
 - None
3. Designated Subcontractor EHS Professional or Representative
1. Designated EHS professionals and representatives will have the authority to stop any work they deem unsafe.
 2. Skanska reserves the right to object to designated subcontractor EHS professionals and EHS representatives if they do not strictly adhere to and enforce the requirements of this EHS Manual, including and without limitation, if they fail to:
 - Investigate any incident or near miss and report the findings to Skanska
 - Attend EHS meetings as required by Skanska
 - Conduct regular EHS meetings with workers to instruct them on project EHS practices and requirements
 - Conduct documented EHS inspections of their work activities and make available to Skanska for review
4. Subcontractor EHS Submittals
- Prior to beginning work, each subcontractor shall submit to Skanska the following items listed below. In the event this policy conflicts with or is inconsistent with the applicable subcontract, the most stringent requirement shall govern to the extent necessary to remove the conflict or inconsistency.
1. Subcontractor-prepared Construction Work Plan (CWP), at least one week prior to mobilization.
 2. Name(s) of designated EHS professional or EHS representative and a statement of his/her qualifications.
 3. Emergency contacts and telephone numbers for their senior operations person and company EHS representative who are available at all times.
 4. Verification of training completed by designated competent persons as required by the scope of work.
 5. Verification of training completed by qualified equipment operators as required by the scope of work for cranes, forklifts, aerial lifts, heavy equipment, etc.
 6. Verification that subcontractor workers designated as first responders have completed first aid and CPR training.
 7. Verification of required training completed by subcontractor workers responding to environmental incidents.
 8. Verification that current annual crane inspections by a certified third-party crane inspection firm have been completed for all cranes brought onto the project by subcontractor.
 9. Project-specific Master Chemical and Substance Inventory Sheet and Safety Data Sheets for all hazardous chemicals and materials to be used or stored on the project.

10. Verification that OSHA or other project required training, as applicable, has been completed. Examples of OSHA or project required training may include:

- Fall Protection
- Confined Space
- Respiratory Protection
- Excavations and Trenches
- Scaffolding
- Crane Signals
- Annual Hazard Communication Training
- Ladders

5. Permits or Plans as Required

Prior to commencing work on the project, each Subcontractor will submit to Skanska for review all work permits or plans pertinent to its scope of work, including the following, as applicable:

1. Confined Space Entry
2. Hot Work
3. Excavation and Trenching
4. Crane Lift Plan
5. Fall Protection Plan
6. Lockout/tagout Checklist
7. Other work plans and permits as deemed necessary

6. Maintain While Working on the Project

Throughout the course of the project, each subcontractor will maintain the following records or documents on site and submit electronically to Skanska weekly:

1. OSHA documentation related to injuries
2. EHS Inspection report
3. Subcontractors shall be responsible for the following:
 - Scaffold
 - Trench
 - Crane
 - Forklift
4. Skanska permits or forms, or their approved equivalent, such as:
 - Confined space entry
 - Hot work
 - Excavation and trenching
 - Crane lift permit
 - Fall protection plan
 - Lockout/tagout checklist
 - Other work plans and permits as deemed necessary

7. Subcontractor Pre-Mobilization Meeting

Prior to mobilization, each subcontractor shall attend a pre-mobilization meeting to discuss site specific environmental, health and safety concerns. The meeting will address the following.

1. Review the subcontractor's contract responsibilities.
2. Confirm the Skanska policy that PPE shall be provided at no expense to its employee by the subcontractor. The subcontractor shall enforce the use of PPE.
3. Review PPE: hard hats, safety glasses, hearing protection, face shields for grinding operations, welding and cutting shields, goggles, dust masks for nuisance dust, or a full respiratory protection program for respirator use for protection from hazardous atmospheric conditions, gloves, etc. Other items may be required depending on the task.
4. Review the subcontractor's method of weekly jobsite inspection.
5. Review required OSHA training with respect to scope of work, paying special attention to fall protection training.
6. Review project-specific fall protection requirements, which may exceed the Skanska six-foot rule.
7. Review other training required by the scope of work, which may include ladders, scaffolding, confined space, excavations, respiratory protection, rigging and hand signals, tools, etc.
8. Confirm that task-specific preplanning meetings are required for all high risk activities.
9. Review competent and qualified person sign-off.
10. Review the use of the Guardrail Removal Permit and its appropriate application. This permit is optional but may be required if determined by the project team. If a component of a guardrail system must be removed, the competent

person can complete a Guardrail Removal Permit. The permit ensures adequate communication of guardrail removal and that other means of fall protection are in place to protect affected employees while the guardrail is removed. If guardrails are removed without permission, Skanska will assume that the subcontractor is responsible for reinstalling the guardrails, and will charge the subcontractor's account accordingly.

11. Review Skanska Fire Protection/Prevention requirements: The subcontractor must provide a fire extinguisher and fire watch in accordance with Skanska's Hot Work permit requirements.
12. Review Skanska's project-specific EAP and site evacuation plan.
13. Confirm that all medical emergencies and accidents must be reported to Skanska immediately
14. Confirm that Skanska will coordinate 911 responses. Subcontractors are required to submit injury report, insurance accident report forms and hospital release forms in a timely manner.
15. Confirm that all property damage incidents must be reported to Skanska immediately.
16. Review Skanska's Accountability Policy for environmental, health and safety violations. Subcontractors shall take corrective action to abate unsafe conditions immediately.
17. Review process for Weekly Tool Box Talks to be submitted with employee sign-off.
18. Confirm that each subcontractor is responsible for providing drinking water for its own employees.
19. Confirm that each subcontractor is responsible for providing its own first aid kit, as well as a designated First Aid/CPR person(s) with current training.
20. Confirm that subcontractors are responsible for protecting their own workers.
21. Confirm that all workers must attend project orientation, sign in and receive a Skanska hardhat sticker regarding such orientation.
22. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Training Links

- None



Fit For Duty

Objective

Site personnel are expected to report to work fit for duty, which means able to perform job duties legally and safely.

Procedure

1. Project management, in conjunction with Skanska USA Civil, Inc.'s Human Resources Department, will be responsible for ensuring that Skanska employees are fit for duty. It is the responsibility of subcontractors to ensure that their subcontractor employees are fit for duty. All site personnel on the project must be capable of carrying out their assigned task(s) in a legal and safe manner.
2. Foremen will be responsible for the following:
 1. Foremen will assign each worker tasks for which they are physically fit and mentally capable.
 2. Foremen will ensure that each employee reporting to work is not under the influence of drugs or alcohol.

During Stretch and Flex and the Daily Hazard Analysis (DHA), all foremen will observe their crew members to assure they are capable of performing each stretch and are not in distress. Employees are responsible for maintaining their own individual levels of fitness required to conduct their daily work.



Personal Protection Equipment - PPE

Objective

All site personnel shall, at a minimum, wear the following personal protective equipment while on the project site (except inside the jobsite office and designated safe zones.)

Legal and Other Requirements

Federal, State, Local Regulations

- ANSI Class III reflectivity standard - when working in traffic and/or at night
- ANSI Class II reflectivity standard - vest or shirt with reflective striping
- ANSI Z89.1 - Hardhat standard
- ANSI 105 cut level III - Glove standard
- ANSI Z87 - Eyewear standard
- ASTM F243-18 - Footwear Protection Criteria
- ANSI Z41.1-1967 - Safety Toe Footwear

Procedure

1. Head Protection

1. Hardhats will be worn at all times on this project, in accordance with the following:
 - Hardhats will be worn according to manufacturer requirements.
 - The Skanska USA Civil, Inc. or Skanska name and the wearer's personal name (first and last) will be displayed on the hardhat.
 - Expired hardhats, as determined by manufacture date, will not be worn.
 - Hardhats must meet ANSI Z89.1 requirements.

2. Eye and Face Protection

1. Eye and face protection safety glasses with side-shields that meet ANSI Z87 criteria are to be worn at all times. Prescription glasses must meet ANSI Z87 requirements, or employees will be required to wear over the glasses (OTG) safety eyewear.
2. In addition, the following eye/face protective equipment, at a minimum, must be used when performing the following work activities:

Activity	Safety Equipment
Welding	Welding hood and safety glasses
Burning	Burning goggles with face shield
Abrasive grinding or cutting	Safety glasses and face shield
Drilling	Goggles or safety glasses and face shield
Reaming	Face shield and safety glasses
Chemical handling	Goggles and face shield
Follow PPE guidelines as detailed in eye/glove chart detailed above.	

3. Foot Protection

1. Safety-toed work boots with a minimum of six (6) inch ankle support must be worn on all jobsites. Work boots that are in good condition must be worn (heel and sole will not show excessive wear) and puncture resistant sole is highly recommended. All other foot wear is not acceptable.

4. High-Visibility Attire

1. All persons on the project site must wear a high visibility vest or shirt that has reflective striping consistent with ANSI Class II requirements.
2. ANSI Class III reflectivity requirements must be met when working in traffic at night.

5. Work Attire

1. Shirts will have a minimum sleeve length of three (3) inches. Tank tops and cut-off shirts are not permitted. Long pants that fit properly around the waist and ankles and that are not excessively worn are required. Pants that are worn low on

the hips or thigh are not allowed. The length of the pants will be such as to not present a tripping hazard. Shorts are not permitted.

6. Hand Protection

1. All personnel on the project shall wear ANSI cut level 3 gloves at all times. Each task shall be analyzed to determine if a higher cut level of glove is required. Specialty gloves may be required for handling sharp materials, chemicals, electrical work, etc.
2. Specific tasks requiring high dexterity may be exempt from the requirement if agreed upon in advance by Skanska Supervision and appropriate controls are identified in the CWP. These exempt employees shall wear ANSI cut level 3 gloves when not performing high dexterity tasks.
3. This requirement applies to all craft workers, supervisors, managers, visitors, vendors or any other individual onsite.
4. Fingerless or modified gloves are not allowed.

7. Additional Protections

1. Respiratory protection and hearing protection are covered in the Health section of this manual.

Taking into consideration the hazards associated with a particular project or task, Skanska USA Civil, Inc. may require site personnel to wear additional personal protective equipment to reduce the likelihood of a work-related injury or illness.

Training Links

- [Eye Safety \[Competent Person\]](#) - [Eye Safety \[Competent Person\]](#)



Stop Work Authority

Procedure

1. Employees have been given the authority, without fear of reprimand or retaliation, to immediately:
 - Stop any work activity that presents a danger to any employees, the public or the environment.
 - Get involved, question and rectify any situation that is identified as not being in compliance with Skanska's environmental, health and safety policies.
 - Report any unsafe conditions or potential negative environmental impacts.
 - Question any work activity that involves violation of established environmental, health and safety policies.



Substance Abuse Policy

Objective

The project has an alcohol and drug-free workplace program to ensure that our business is functioning safely, efficiently and cost-effectively. The project will require all employees and job applicants to participate in, consent to and comply with the dictates of this program as a condition of employment and continued employment. For those who refuse to cooperate fully with the terms and conditions of this program, the project will take appropriate measures to address the situation promptly and will not tolerate substance abuse. This policy applies to all the project, subcontractors at any tier, vendor and other third-party employees, including management working on or visiting the project.

Legal and Other Requirements

Federal, State, Local Regulations

- None

Skanska/Client Requirements

- None

Procedure

1. Jobsite Requirements

1. Whenever employees are working, operating Skanska vehicles or equipment, present on Skanska premises or present in any other location performing services for Skanska, they are prohibited from:
 - Using, possessing, buying, selling, manufacturing, distributing, dispensing or transferring illegal drugs or controlled substances.
 - Being under the influence of controlled substances.
2. Workers are expected to follow the medical advice given with prescribed medication.
3. Violation of this requirement will result in termination.

2. Testing

1. Skanska reserves the right to request drug and alcohol screenings from employees.
2. Skanska will conduct drug and alcohol testing within the parameters of any applicable state and federal laws and will use scientifically valid methods and procedures.
3. Skanska reserves the right to use onsite testing procedures per requirements of the project and Owner Contract, for both its employees and subcontractor employees where Skanska is required to do so.
4. Applicants for all positions will be notified that they may be required, once offered a position, to successfully pass a drug test as a condition of being hired.
5. Applicants will be required to sign a consent form and present a valid photo identification card (driver's license).
6. A positive drug test or refusal to participate in a drug test, or any effort to tamper with a sample or to alter a test result, will disqualify an applicant from employment.
7. This provision will apply to all former employees who are eligible to reapply for employment with Skanska after six months.

3. Reasonable Suspicion Testing

1. Employees and subcontractors will be required to submit to a drug and/or alcohol test when a supervisor and/or manager of that employee has reasonable suspicion of prohibited drug and/or alcohol use. Reasonable suspicion will be documented and will not be based on rumor, speculation or unsubstantiated information.

4. Post-Accident Testing

1. All employees and subcontractors who may have potentially caused or contributed to an incident or injury during work time in a Skanska office or at a Skanska jobsite will be subject to drug and alcohol testing.
2. A post-accident drug and alcohol test must take place within three (3) hours of the time of the accident. A Skanska employee who fails to report a work-related accident is in violation of this program and is subject to disciplinary action, up to and including termination.

5. Organizational Response to Policy Violation

1. An employee or job applicant who receives a confirmed positive test result may contest or explain the result to the medical review officer within five working days after receiving written notification of the test result. If an employee's or job applicant's explanation or challenge is unsatisfactory to the medical review officer, the medical review officer shall report

a positive test result back to Skanska.

2. In the event of a positive test result, after appeal, the Skanska employee shall be removed from the project and subject to termination, pending review by Human Resources.

6. Right to Search

1. Employees and their property, including but not limited to lunch boxes and toolboxes, are subject to search while on Skanska premises. Searches may be conducted without prior warning and may include entire work groups or specific individuals, if management has reason to suspect the employee is in violation of this program. Trained narcotic dogs may be used in searches. Searches of employees and their clothing will be by a person of the same gender.
2. Employees who refuse to cooperate will not be forcibly detained or searched, but failure to cooperate will result in disciplinary action up to and including termination.

7. Confidentiality

1. All information, interviews, reports, statements, memoranda, documentation, and drug and alcohol test results, written or otherwise, are confidential. Skanska and any of its agents associated with drug and alcohol testing who receive or have access to information concerning test results shall keep all information confidential. No such information shall be released without the written consent of the employee unless the release is on a need-to-know basis, is required by law, and is relevant to a legal claim asserted by the employee, or as otherwise provided by law.
2. In the event of a positive drug test, the reason for termination shall be referred to as "employee failed to comply with company program."
3. Skanska workers' compensation carrier may be notified of results of post-accident tests that may affect Skanska insurance program as provided for by state laws.

8. Reservation of Rights

1. Skanska reserves the rights to administer, interpret, change or rescind the program in whole or in part, with or without notice or consideration. In addition, changes to applicable state and federal laws or regulations may require Skanska to modify or supplement the program.
2. The program does not create an employment contract and should not be interpreted or considered as such.
3. This program does not, in any way, change the nature of the at-will employment relationship on the part of the employee or Skanska.

Responsibilities

1. Project Management

1. Address employee questions or requests for information relative to Skanska USA Civil, Inc.'s substance abuse policy.
2. Document any reasonable suspicion of prohibited drug and/or alcohol use by employees or subcontractors that requires a drug/alcohol test.
3. Provide copy of positive/negative result to employee.
4. Any project specific requirements for this section are listed here.
 - None

2. Subcontractor

1. Each subcontractor will promote a drug free workplace with their employees and will communicate what constitutes prohibited activities.
2. Ensure all workers involved in an incident have a post incident drug/alcohol test within three (3) hours of the incident and report the results to Skanska. At a minimum, the drug test will follow current Substance Abuse Mental Health Services Administration (SAMHSA) five panel guidelines; the alcohol test will follow Department of Transportation (DOT) guidelines.
3. Any project specific requirements for this section are listed here.
 - None



Vehicle Policy

Objective

The purpose of this policy is to establish rules and regulations for safe operation of motor vehicles when used on a project site.

Legal and Other Requirements

Federal, State, Local Regulations

- All site personnel shall comply with all applicable federal, state and local laws and Regulations regarding the safe operation of equipment and motor vehicles

Skanska/Client Requirements

- None

1. Rights and Responsibilities

1. Project management will identify who will fulfill the responsibilities of monitoring and measuring the operational controls listed below. Site personnel will be responsible for complying with any imposed project-specific requirements by the Client or Skanska USA Civil, Inc.
2. Skanska Project Management
Members of management shall:
 - Enforce the policies and rules set forth in this EHS Manual.
 - Ensure that proper access, egress and safe parking areas are available at the project site.
 - Verify that daily walk-around inspections are being performed.
3. EHS Staff
Members of the EHS staff shall:
 - Audit the inspection and maintenance records of company-owned vehicles.
 - Recommend the appropriate safety accessories for company-owned vehicles when required (e.g., flashing beacons, whip flags, fire extinguisher size, etc.)
 - Enforce the rules set forth in this EHS Manual.
4. Subcontractors
Subcontractors shall:
 - Ensure that their subcontractor employees operating a motor vehicle on an active project site are properly licensed and qualified to drive a motor vehicle.
 - Ensure that vehicles utilized on an active project site meet the project safety requirements.
 - Ensure that all subcontractor employees operating a vehicle on an active project site comply with the applicable policies and rules set forth in this EHS Manual.
 - Coordinate with project vehicle routes, conflicts in parking, and access and egress logistics.
5. In the event this Policy conflicts with or is inconsistent with any information in any Skanska Handbook, the more stringent requirement shall apply.

2. Operational Controls/Documents

1. The following documents should be maintained as part of the project files. To the extent these documents are within the control of subcontractors, subcontractors shall maintain them and make them available for inspection by Skanska's EHS staff at the project site:
 - Manufacturer's operating manual
 - Driver's License
 - Construction Work Plan
 - Maintenance of Traffic (MOT)
 - Traffic Control Program (TCP)
 - Maintenance and Protection of Traffic (MPT)
 - Vehicle equipment and maintenance records
2. Motor Vehicle Records (MVR) shall be reviewed prior to issuing a vehicle. MVRs may also be reviewed periodically throughout vehicle use (for vehicles covered by this policy).
3. Any vehicle or equipment that bears a license plate is required to be operated by an operator with a valid driver's

license.

4. Any project specific requirements for this section are listed here.

- None

5. Performance Indicators/Records

Performance indicators are the means by which projects monitor and measure their compliance with operational controls and the status of achieving objectives and targets. Accordingly, the following records should be maintained as part of the project files:

- Daily vehicle inspections (when applicable)
- Maintenance records
- Incident reports involving vehicles
- Any project specific requirements for this section are listed here.
 - None

3. Procedure and Rules

Rules for Safe Operation of Vehicles

The following procedures and rules apply to all Skanska and subcontractor drivers and vehicles, whether the vehicle is owned by the company or covered by a company auto allowance, used during the construction process, (e.g., material delivery and transport, hauling of debris, service and maintenance vehicles) or for related business purposes:

1. Every vehicle shall have a seatbelt for every occupant being transported.
2. Every vehicle over one ton in hauling capacity shall have a fire extinguisher and first aid kit.
3. Parked equipment one (1) ton or greater in capacity shall have a wheel chocked and parking brake set.
4. Every construction vehicle entering an active work zone must be equipped with an audible reverse signal alarm, and in urban areas, a "white noise" alarm is recommended. For non-construction vehicles, the driver will signal twice using the vehicle's horn prior to reversing near an active work zone; a spotter is required when there is an obstructed view to the rear.
5. A trained spotter shall be used whenever a heavy duty vehicle is put in reverse.
6. A trained spotter shall be used whenever a light duty vehicle (e.g., pickup truck) is put in reverse and conditions surrounding such use present a significant risk to person or property.
7. If a vehicle has an obstructed view to the rear, a trained spotter shall be used to direct the backing operations.
8. The spotter can only be removed if a CWP detailing the controls for safely backing without a spotter has been reviewed and approved by project management.
9. A worker shall not serve as a spotter unless properly trained and qualified to do so, and be designated and identifiable.
10. It is the responsibility of each vehicle operator to perform a daily walk-around and vehicle inspection. Drivers are responsible for checking the mechanical condition of the vehicle, fire extinguishers or any other mandated equipment and keeping company-owned vehicles clean.
11. All tools and equipment must be secured prior to being transported.
12. All site personnel are required to know and comply with local, state and federal traffic laws for the locations in which they will operate their vehicles.
13. Any Skanska employee must notify his/her supervisor immediately if he/she is issued a citation while operating a vehicle during the construction process or for project-related purposes, whether the vehicle is Skanska-owned or covered by an auto allowance.
14. Continued violations of these rules by Skanska employees could result in the loss of a Skanska vehicle or auto allowance or potential further disciplinary action up to and including termination.
15. Neither Skanska vehicles nor private vehicles used for Skanska purposes under auto allowances may be operated when the Skanska employee is under the influence of alcohol or drugs.
16. Skanska employees are subject to disciplinary action if they are involved in an accident for which they are charged with a traffic violation or crime, or found liable in a civil lawsuit, including but not limited to drug or alcohol use, unacceptable driving record or evidence of any unsafe conditions or circumstances. All charges of traffic violations involving Skanska vehicles or private vehicles while used for Skanska purposes under auto allowances are to be immediately reported to a member of the project management team. Accidents must be reported in accordance with established Skanska corporate policies and procedures.
17. Except in an emergency, only authorized drivers may operate a vehicle.
18. Decals and unit-assigned numbers are not to be removed from Skanska-owned vehicles under any circumstance without written authorization of a Skanska equipment manager.
19. All Skanska employee drivers are expected to conduct themselves appropriately, professionally and in a safe manner when operating a Skanska vehicle or private vehicle used for Skanska's purposes. Skanska employees found in violation of any of these rules will be subject to disciplinary action, up to and including dismissal. Subcontractors are likewise responsible for disciplining subcontractor workers who fail to adhere to applicable EHS policies and rules set forth in this EHS Manual, provided that Skanska may take actions necessary to address imminent threats to life and health and, if a subcontractor fails to take timely or appropriate corrective action, Skanska may, consistent with the terms of the applicable subcontract, bar from the project site any such subcontractor worker who poses a safety risk to

the project.

20. Any project specific requirements for this section are listed here.

- None

4. **Job Vehicles/Trucks**

1. All company vehicle assignments will be made to the jobs as required. As with any other equipment, the project manager will request vehicle job assignments when the job is mobilized. The equipment manager will assign vehicles to the jobs. Job vehicles will be used on the job by qualified drivers and will remain on the job overnight.

2. Any project specific requirements for this section are listed here.

- None

EHS Forms and Documents

- None

Applicable Training

Training Links

- None

Safety



Concrete and Masonry

Objective

The purpose of this program is to develop, implement, maintain and enforce safe work practices when working with concrete and masonry products.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.701 Subpart Q - Concrete and Masonry Construction - General requirements](#)
- [OSHA 29 CFR 1926.703 Subpart Q - Concrete and Masonry Construction - Requirements for cast-in-place Concrete](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 4 §1532.3](#)
- [OSHA 29 CFR 1926.700 Subpart Q - Concrete and Masonry Construction - Scope, application, and definitions](#)
- [OSHA 29 CFR 1926.706 Subpart Q - Concrete and Masonry Construction - Requirements for masonry construction](#)
- [OSHA 29 CFR 1926.705 Subpart Q - Concrete and Masonry Construction - Requirements for lift-slab operations](#)
- [OSHA 29 CFR 1926.704 Subpart Q - Concrete and Masonry Construction - Requirements for precast concrete](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 29 §1709-1722.1](#)
- [OSHA 29 CFR 1926.702 Subpart Q - Concrete and Masonry Construction - Requirements for equipment and tools](#)

Skanska/Client Requirements

- None

Procedure

1. General Requirements

1. Do not place construction loads on a concrete structure until it has been determined that it can support the load.
2. Do not permit employees, other than those essential to the work, behind the jack during post-tensioning operations. Erect signs and barriers to limit employee access.
3. Set up walkways for safe access/egress when feasible.
4. For any mixing, chipping, grinding or other dust-producing activities related to concrete or mortar, refer to the Silica and Respiratory Protection sections of this manual.
5. Any project specific requirements for this section are listed here.
 - None

2. Equipment and Tools

1. Concrete mixers with one cubic yard or larger loading skips shall be equipped with a mechanical device to clear the skip of materials and guardrails installed on each side of the skip.
2. Powered and rotating concrete trowelling machines that are manually guided shall be equipped with a control switch (a.k.a. "dead man" switch) that will automatically shut off the power whenever the hands of the operator are removed from the equipment handles.
3. Stick line/distribution systems shall:
 - Be secured to prevent the release of stored energy.
 - Be cleared of any residual concrete upon completion of work or during extended periods of idle time.
 - Utilize thrust blocks during vertical operations or operations that include changes in direction based on engineering calculations.
4. Concrete buggy handles will not extend beyond the wheels on either side of the buggy.
5. Concrete pumping systems using discharge pipes will be provided with pipe supports designed for one hundred percent (100%) overload.
6. Route elevated concrete buckets so that employees are not exposed to hazards associated with falling concrete and/or buckets.
7. Do not permit employees to work under concrete buckets while buckets are being elevated or lowered.

8. Use taglines to control concrete tools (e.g., bucket, formwork, skip pans, etc.).
9. Use air horns, whistle or similar to signal when concrete tools (e.g., bucket, formwork, skip pans, etc.) are being hoisted overhead.
10. Concrete buckets equipped with hydraulic or pneumatic gates shall have positive safety latches to prevent premature or accidental dumping and ensure that the release is self-closing.
11. Concrete buckets shall be designed to prevent concrete from hanging up on top and the sides.
12. Equip buckets with a discharge device that an employee can operate without being exposed to the load.
13. Sections of tremies and similar concrete conveyances will be secured with wire rope (or equivalent materials) in addition to the regular couplings or connections.
14. Ensure that all concrete and masonry tools are inspected prior to use.
15. Bull float handles will be constructed of nonconductive material or insulated with a nonconductive sheath.
16. When using bull floats, inspect the area to ensure there is no energized equipment or power lines nearby that the handles could touch.
17. Finishers shall wear kneepads and impervious gloves when hand-finishing concrete.
18. Masonry saws shall be guarded with a semicircular enclosure over the blade. A method for retaining blade fragments will be incorporated in the design of the semicircular enclosure.
19. Do not permit employees to perform maintenance or repair on equipment unless all potentially hazardous energy sources have been locked out and tagged in accordance with Skanska's lockout/tagout policy.
20. Employees who operate vibrators, pump nozzles and concrete buckets shall wear appropriate eye and foot protection based on risk assessment. Long sleeve shirts are recommended to protect against concrete burns and dermatitis to bare skin.
21. Any project specific requirements for this section are listed here.
 - None

3. Cast-In-Place Concrete

1. Ensure drawings or plans, including all revisions for the jack layout, formwork (including shoring equipment), working decks and scaffolds are available at the jobsite
2. Inspect all shoring equipment (including equipment used in re-shoring operations) prior to erection, and once erected, immediately prior to, during and after concrete placement. If it is found damaged, reinforce immediately.
3. Establish controlled access zones under concrete placement area with "Do Not Enter" signage
4. The sills for shoring shall be sound, rigid and capable of carrying the maximum intended load
5. All base plates, shore heads, extension devices and adjustment screws shall be in firm contact and secured when necessary with the foundation and the form.
6. Eccentric loads on shore heads and similar members shall be prohibited unless these members have been designed for such loading.
7. When single post shores are used on top of another (tiered):
 - A qualified designer shall prepare the design of the shoring, and an engineer qualified in structural design shall inspect the erected shoring.
 - The single post shores shall be vertically aligned, spliced to prevent misalignment and adequately braced in two mutually perpendicular directions at the splice level. Each tier shall also be diagonally braced in the same two directions.
8. No adjustments of single post shores to raise formwork shall be made after the placement of concrete
9. Erect re-shoring, as the original forms and shores are removed, whenever the concrete is required to support loads in excess of its capacity.
10. Construct walkways along form walls in accordance with OSHA scaffold and fall protection standards.
11. Any project specific requirements for this section are listed here.
 - None

4. Vertical Slip Forms

1. Formwork shall be designed, fabricated, erected, supported, braced and maintained so that it will be capable of supporting, without failure, all vertical and lateral loads anticipated to be applied to the formwork.
2. The steel rods or pipes on which jacks climb, or by which the forms are lifted, shall be specifically designed for that purpose and adequately braced where not encased in concrete.
3. Design forms will be designed to prevent excessive distortion of the structure during the jacking operation.
4. All vertical slip forms shall be provided with scaffolds or work platforms where employees are required to work or pass.
5. Position jacks and vertical supports in such a manner that the loads do not exceed the rated capacity of the jacks.
6. The jacks or other lifting devices shall be provided with mechanical dogs or other automatic holding devices to support the slip forms whenever failure of the power supply or lifting mechanism occurs.
7. Maintain the form structure with all design tolerances specified for plumb during the jacking operation.

8. Do not exceed the predetermined safe rate of lift.
9. Any project specific requirements for this section are listed here.
 - None

5. Reinforcing Steel

1. Take measures to prevent unrolled wire mesh from recoiling.
2. Protect all vertical and horizontal rebar, form stakes, metal and/or plastic conduit and/or small pipe stub-ups with approved caps or other industry accepted and tested alternatives to protect against impalement and injury.
3. Ensure that reinforcing steel and forms for walls, piers, columns, stairs and similar vertical structures are adequately supported to prevent overturning and collapse, and are designed and installed under the supervision of a qualified person.
4. Any project specific requirements for this section are listed here.
 - None

6. Removal of Formwork

1. Do not remove forms and shores (except those used for slabs on grade and slip forms) until it has been determined that the concrete has gained sufficient strength to support its weight and superimposed loads.
2. Do not remove re-shoring until the concrete being supported has attained adequate strength to support its weight and all loads in place upon it.
3. All projects are to follow the Red Bolt Policy for removal of vertical formwork. See Red Bolt Policy below.
4. Any project specific requirements for this section are listed here.
 - None

7. Precast Concrete Erection

1. Adequately support precast concrete wall units, structural framing and tilt-up wall panels to prevent overturning and to prevent collapse until permanent connections are completed.
2. Use proper lifting devices, such as lifting lugs, for precast. Prepare a Lift Plan in conjunction with the Construction Work Plan (CWP).
 - Lifting inserts attached to tilt-up precast concrete members shall support at least two times the maximum intended load.
 - Lifting attached to precast concrete members, other than the tilt-up members, shall support at least four times the maximum intended load.
 - Lifting hardware shall support at least five times the maximum intended load.
3. Do not permit employees under precast concrete members being lifted or tilted into position except those employees required for the erection of those members.
4. Any project specific requirements for this section are listed here.
 - None

8. Lift Slab

1. All lift slab operations shall be designed by a registered professional engineer with experience in this field.
2. Any project specific requirements for this section are listed here.
 - None

9. Masonry Construction

1. Establish a limited access zone whenever a masonry wall is being constructed.
2. The limited access zone shall:
 - Be established prior to the start of construction of the wall.
 - Be equal to the height of the wall to be constructed plus four (4) feet and run the entire length of the wall.
 - Be established on the side of the wall that does not have a scaffold.
 - Be restricted to entry by employees actively engaged in constructing the wall.
 - Remain in place until the wall is adequately supported.
3. Adequately brace all masonry walls over eight (8) feet in height to prevent overturning and to prevent collapse unless the wall is adequately supported so that it will not overturn or collapse. Keep the bracing in place until permanent supporting elements of the structure are in place.
4. Do not lean or stack material against the wall until fully supported.
5. Any project specific requirements for this section are listed here.
 - None

10. Red Bolt Policy

1. All formwork shall be stripped in a controlled manner.
2. Each project shall administer the "Red Bolt Policy."
 - A Competent Person will determine whether or not the Red Bolt Policy shall be administered based on the weight,

size and/or configuration of the forms.

- The Construction Work Plan shall identify the Competent Person for each shift that the work will be performed.
 - The Construction Work Plan shall include a description of the Red Bolt Policy tagging system.
 - The Competent Person shall identify the pre-determined bolts, braces or engineered systems that can only be removed once a lifting device is properly rigged to the form.
 - The pre-determined bolts, braces or engineered systems shall be identified with red bolt tags, red spray paint, etc.
 - Only the Competent Person shall authorize the removal of the bolts, braces or engineered systems.
3. The Daily Hazard Analysis shall be used by the stripping crew to describe their means and methods, including the stripping sequence and identification of red bolts, braces or engineered systems.

Sample tag:



EHS Forms and Documents

- None

Applicable Training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Community Impacts Transportation, Traffic Circulation & Economic
- Confined and Enclosed Spaces
- Cranes and Cranes Rigging
- Demolition
- Dropped Object Protection
- Electrical
- Fall Prevention and Protection
- Fire Prevention and Protection
- Hazard Communication
- Hazardous Materials and Waste Management
- Housekeeping
- Material Handling and Storage
- Materials and Waste Management
- Respiratory Protection

- Rigging
- Scaffolds
- Signs, Signals and Barricades
- Silica
- Spills and Leaks
- Stairways and Ladders
- Temporary Works
- Tools - Hand and Power
- Welding and Cutting



Confined and Enclosed Spaces

Objective

The purpose of this program is to protect workers from the hazards associated with permit-required and non-permit required confined spaces on our jobsites. Projects will take the necessary steps to correctly evaluate confined spaces in order to safely enter and perform our work. All workers taking part in an entry will be trained in accordance with the requirements of this program.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.21 Subpart C - General Safety and Health Provisions - Safety training and education](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 16, Article 108 §5156-5159](#)
- [OSHA 29 CFR 1926 Subpart AA - Confined Spaces in Construction - Authority for 1926 Subpart AA](#)
- [OSHA 29 CFR 1910.146 Subpart J - General Environmental Controls - Permit-required confined spaces](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 37 §1950-1962](#)

Skanska/Client Requirements

- None

Procedure

1. General Requirements

1. Evaluate the work environment using the Confined Space Evaluation Checklist to determine if it is a confined space. A confined space meets the following conditions:
 - Is large enough for an employee to enter fully and perform assigned work
 - Is not designed for continuous occupancy by the employee
 - Has a limited or restricted means of entry or exit
2. The Confined Space Evaluation Checklist will also determine if the space is a permit-required confined space or a non-permit-required confined space. A permit-required confined space meets one or more of the following conditions:
 - Contains or has the potential to contain a hazardous atmosphere
 - Contains a material with the potential to engulf someone who enters the space
 - Has an internal configuration that might cause an entrant to be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross section
 - Contains any other recognized serious safety or health hazards
3. If the space is deemed a permit-required confined space, the Confined Space Entry Permit must be completed before entry.
4. Follow all procedures identified for safe entry according to this program.
5. Any project specific requirements for this section are listed here.
 - None

2. Non-permit required confined space

1. Pre-Entry

1. Identify tasks to be performed in the space and their potential hazards.
2. Secure the following equipment prior to entry:
 - Testing and monitoring equipment.
 - Ventilation equipment needed to maintain acceptable entry conditions.
 - Adequate lighting equipment.
 - Rescue and emergency equipment as needed.
 - Any other equipment necessary for safe entry into and rescue from space.
3. Isolate the space and implement measures to prevent unauthorized entry.
4. Complete the air-monitoring log on the Confined Space Entry Permit and maintain at the jobsite for inspection. Properly calibrate air-monitoring equipment and maintain records of calibration.
 - Test the space for atmospheric hazards in this order: oxygen content, combustible gases, vapors, dusts, and toxic gases.

- If necessary, purge, flush or ventilate the space to eliminate or control atmospheric hazard for at least thirty (30) minutes prior to retesting air quality.
 - 5. Implement Lockout/tagout as necessary.
 - 6. If necessary, select rescue and retrieval methods and/or notify proper emergency services that may be required to respond.
2. Entry
- 1. Only confined space trained personnel shall enter non-permit required confined spaces.
 - 2. Follow all entry procedures including, but not limited to:
 - Verification of acceptable entry conditions
 - Continuous air monitoring and documentation of readings every 15 minutes
 - Implementation of forced air ventilation if necessary
 - Proper use of equipment required
 - Any other procedures deemed necessary for safe operations
 - 3. Evacuate the space if a prohibited condition is detected inside or outside the space, entrant exhibits signs of hazard exposure or evacuation orders are given.
3. Permit-required confined space
1. Pre-Entry
- 1. Identify tasks to be performed in the space and their potential hazards.
 - 2. Secure the following equipment prior to entry:
 - Testing and monitoring equipment
 - Ventilation equipment needed to maintain acceptable entry conditions
 - Any necessary communications equipment
 - Personal protective equipment when feasible engineering and work practice controls do not adequately protect employees
 - Adequate lighting equipment
 - Non-sparking hand tools
 - Barriers and shields as required
 - Rescue and emergency equipment needed
 - Any other equipment necessary for safe entry into and rescue
 - In an explosive environment, use explosion-proof mechanical equipment and lighting (Class one (1) Div one (1))
 - 3. Isolate the space and implement measures to prevent unauthorized entry.
 - 4. Complete the air-monitoring log on the Confined Space Entry Permit and maintain at the jobsite for inspection. Properly calibrate air monitoring equipment and maintain records of calibration.
 - Test the space for atmospheric hazards in this order: oxygen content, combustible gases, vapors, dusts and toxic gases.
 - Purge, flush or ventilate the space to eliminate or control atmospheric hazard for at least thirty (30) minutes prior to retesting air quality.
 - No employee will be allowed to enter an oxygen-deficient or potentially toxic/explosive confined space until project management approves the Construction Work Plan.
 - 5. Implement Lockout/tagout as necessary.
 - 6. Identify appropriate controls if hot work is to be performed in the space.
 - 7. Select rescue and retrieval methods and/or notify proper emergency services that may be required to respond. In addition:
 - Evaluate a prospective rescuer's ability to respond to a rescue summons in a timely manner.
 - To facilitate non-entry rescue, use retrieval systems or methods whenever an authorized entrant enters a confined space. Retrieval equipment is not required when its use would increase the overall risk of entry or would not contribute to rescue such as with confined spaces with side openings. Side openings in a confined space are those within three and a half (3½) feet off the bottom. Retrieval systems must meet the following requirements:
 - Each authorized entrant must use a chest or full body harness with the retrieval line attached at the center of the entrant's back near shoulder level, or above the entrant's head. Wristlets may be used in lieu of the chest or full body harness if the use of a full body harness is infeasible or creates a greater hazard. The wristlets must be the safest and most effective alternative in this case.
 - The other end of the retrieval line must be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device must be available to retrieve personnel from vertical-type permit spaces more than five (5) feet deep.

8. Select a communication method based on configuration of space and work task.
 9. Before entry is authorized, the entry supervisor must complete and sign the entry permit. The permit must be posted for attendants and entrants to review. The duration of the permit may not exceed the time required to complete the work, or eight hours.
 10. During pre-entry, the entry supervisor must:
 - Evaluate the confined space to determine known and potential hazards.
 - Identify acceptable entry conditions.
 - Verify appropriate equipment (retrieval, personal protective equipment, air monitors, etc.) based on hazards in the confined space.
 - Verify that rescue services are available and the means for summoning them are operable.
 - Assign qualified and trained individuals as authorized entrants and attendants.
 - Keep all Safety Data Sheets (SDS) for hazardous chemicals involved with entry available for emergency personnel if an employee is overexposed to a substance.
 - Provide pedestrian, vehicle or other barriers as necessary to protect entrants from external hazards.
 - Provide adequate lighting equipment.
 - Provide equipment needed for safe access.
 - Before signing the permit allowing entry to begin, verify the following:
 - The permit has been completed.
 - All tests specified by the permit have been conducted.
 - All procedures and equipment specified by the permit are in place.
 - For confined space work extending beyond eight (8) hours, determine when responsibility for a confined space entry operation is transferred, at intervals dictated by the hazards and operations performed within the space, to maintain safe confined space operations.
 11. During pre-entry the attendant must:
 - Verify acceptable entry conditions.
 - Monitor air continuously.
 - Implement forced air ventilation if necessary.
 - Communicate with entrants.
 - Ensure rescue controls are in place.
 - Comply with any other procedures deemed necessary for safe operations.
 12. Only authorized personnel shall enter confined spaces. Authorized entrants must review posted permit and verify the following before entry:
 - Acceptable entry conditions
 - Continuous air monitoring
 - Implementation of forced air ventilation if necessary
 - Proper use of equipment required
 - Communication with attendant and other entrants
 - Any other procedures deemed necessary for safe operations
2. Entry
1. During entry, the entry supervisor must:
 - Remove unauthorized persons who enter or who attempt to enter the confined space during entry operations.
 - Terminate the entry and cancel the permit when a prohibited condition is detected, or a condition that is not allowed under the entry permit criteria arises inside or near the confined space.
 - Verify that operations covered by the entry permit have been completed.
 2. During entry, the attendant must:
 - Remain outside the confined space during entry operations until relieved by another approved attendant.
 - Continuously maintain an accurate count of authorized entrants in the confined space and note time of entry and exit.
 - Test or monitor the space continuously to determine if acceptable entry conditions are being maintained. Document readings every fifteen (15) minutes on the air monitoring log.
 - Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space.
 - Ensure continuous communication between themselves and the entrants in order to monitor their status.
 - If unauthorized persons approach or enter a confined space while entry is in progress, take the following actions:
 - Warn the unauthorized person(s) that they must stay away from the confined space.

- Advise the unauthorized persons that they must exit immediately if they have entered the confined space.
 - Inform the authorized entrants and the entry supervisor if an unauthorized person(s) has entered the confined space.
 - Order evacuation if any of the following conditions occur:
 - A prohibited condition is detected.
 - The behavioral effects of hazard exposure are detected in an authorized entrant.
 - A situation outside the space could endanger the authorized entrants.
 - He/she cannot effectively and safely perform all the required duties of an attendant.
 - Summon rescue and other emergency services as soon as it is determined that authorized entrants may need assistance to escape from space hazards.
 - Perform non-entry rescues with retrieval equipment.
3. During entry, entrants must:
- Alert attendant when:
 - Any warning sign or symptom of exposure to a hazard is recognized.
 - A prohibited condition is detected.
 - Evacuate the permit space immediately when:
 - An order to evacuate is given by the attendant or the entry supervisor.
 - Any warning sign or symptom of exposure to a hazard is recognized.
 - A prohibited condition is recognized.
 - An evacuation alarm is sounded.

3. Post-Entry

1. The entry supervisor must cancel the permit and file it with the safety department for one year to facilitate a review of the confined space program. Document any problems during entry operations, in order to make continuous improvements to the confined space program.
2. Remove all entrants and equipment from space.
3. Replace the cover, hatch, door, etc., in space to prevent unauthorized entry.

EHS Forms and Documents

- [Confined Space Evaluation Checklist - Confined Space Evaluation Checklist](#)
- [Confined Space Entry Permit - Confined Space Entry Permit](#)

Applicable Training

Training Links

- [Confined Space Entry-Permit-Required \[Competent Person\] - Confined Space Entry-Permit-Required \[Competent Person\]](#)



Cranes and Cranes Rigging

Objective

This document is intended to standardize the efforts and actions required by project teams to safely and properly plan and manage the crane operations on each site. Therefore, this document, together with applicable project or agency specifications and OSHA regulations, will guide all project teams on the safe operation of and the administrative requirements for cranes.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.251 Subpart H - Materials Handling, Storage, Use, and Disposal - Rigging equipment for material handling](#)
- [OSHA 29 CFR 1926.1501 Subpart N - Helicopters, Hoists, Elevators, and Conveyors - Helicopters, Hoists, Elevators, and Conveyors](#)
- [OSHA 29 CFR 1926.106 Subpart E - Personal Protective and Life Saving Equipment - Working over or near water](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 14 §1604-1605.21](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 9 §1581-1589](#)
- [OSHA 29 CFR 1926.1428 Subpart CC - Cranes & Derricks in Construction - Signal person qualifications](#)
- [OSHA 29 CFR 1926.1417 Subpart CC - Cranes & Derricks in Construction - Operation](#)
- [OSHA 29 CFR 1926.20 Subpart C - General Safety and Health Provisions - General safety and health provisions](#)
- [OSHA 29 CFR 1926.1434 Subpart CC - Cranes & Derricks in Construction - Equipment modifications](#)
- [OSHA 29 CFR 1926.1416 Subpart CC - Cranes & Derricks in Construction - Operational aids](#)
- [USACE FM 385 Section 11.D](#)
- [OSHA 29 CFR 1926.502 Subpart M - Fall Protection - Fall protection systems criteria and practices](#)
- [OSHA 29 CFR 1926.1426 Subpart CC - Cranes & Derricks in Construction - Free fall and controlled load lowering](#)
- ASME B30.5.2011
- [OSHA 29 CFR 1910.179 Subpart N - Materials Handling and Storage - Overhead and gantry cranes](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 15 §1610-1619.5](#)
- [OSHA 29 CFR 1926.1400 Subpart CC - Cranes & Derricks in Construction - Scope - Cranes & Derricks in Construction](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 12 §1600-1601](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 28 §1694](#)
- [California Code of Regulations, Title 8, Subchapter 5, Group 2, Article 36 §2940](#)
- [OSHA 29 CFR 1926.550 Subpart N - Helicopters, Hoists, Elevators, and Conveyors - Helicopters, Hoists, Elevators, and Conveyors](#)

Skanska/Client Requirements

- None

Procedure

1. General Policy

The following standards, definitions and procedures support the acquisition, erection, operation and maintenance of all cranes under Skanska USA Civil, Inc. control on Skanska projects. This document is designed to be included as part of the EHS Manual. It includes basic requirements for the operation of cranes in all regions. Project and regional-specific requirements can be added at the end of each major section.

1. Objective

On joint-venture projects where Skanska is not the lead managing partner, the lead managing partner's crane policy will take precedence; however, when not the lead managing partner, Skanska employees will make every effort to comply with Skanska's practices.

2. Scope of Applicable Equipment

The requirements of this standard apply to equipment designed to hoist, lower and horizontally move a suspended load

which includes mobile cranes, truck cranes, rough terrain cranes, crawler cranes, pile drivers, tower cranes and gantry cranes, but is not intended to provide guidelines for mobile equipment for which the hoisting of loads is a secondary purpose (e.g., an excavator equipped with a hook on the bucket).

3. Applicable Regulations and Other Requirements

See Legal and Other Requirements section above.

4. Definitions

A/D director(Assembly / disassembly director)

Individual who meets this policy's requirements for an A/D director, irrespective of the person's formal job title or whether the person is non-management or management personnel.

Anti-collision system

An electronic device used to help the operator avoid swing collisions with other cranes and set swing boundaries and zones for safe operation.

Articulating crane

A crane whose boom consists of a series of folding, pin-connected structural members, typically manipulated to extend or retract using power from hydraulic cylinders.

Assembly / disassembly

The assembly and/or disassembly of equipment covered under this policy. With regard to tower cranes, "erecting and climbing" replaces the term "assembly" and "dismantling" replaces the term "disassembly". Regardless of whether the crane is initially erected to its full height or is climbed in stages, the process of increasing the height of the crane is an erection process.

Assist crane

A crane used to assist in assembling or disassembling a crane.

Attachments

Any device(s) that expand(s) the range of tasks that can be done by the equipment. Examples include, but are not limited to, augers, drills, magnets, pile-drivers and boom-attached personnel platforms.

Audible signal

A signal made by a distinct sound or series of sounds. Examples include, but are not limited to, sounds made by bells, horns or whistles.

Blocking (also referred to as "cribbing")

Wood or other material used to support equipment or a component and distribute loads to the ground. It is typically used to support lattice boom sections during assembly / disassembly and under outrigger and stabilizer floats.

Boatswain's chair

A single-point, adjustable suspension scaffold consisting of a seat or sling (which may be incorporated into a full body harness) designed to support one employee in a sitting position.

Boom (equipment other than tower crane)

An inclined spar, strut or other long structural member that supports the upper hoisting tackle on a crane or derrick. Typically, the length and vertical angle of the boom can be varied to achieve increased height, or height and reach, when lifting loads. Booms can usually be grouped into general categories of hydraulically extendible, cantilevered type, latticed section, cable-supported type or articulating type.

Boom (tower cranes)

On tower cranes, if the "boom" (i.e., principal horizontal structure) is fixed, it is referred to as a jib; if it is moveable up and down, it is referred to as a boom.

Boom angle indicator

Device that measures the angle of the boom relative to horizontal.

Boom hoist limiting device

Includes boom hoist disengaging device, boom hoist shut-off, boom hoist disconnect, boom hoist hydraulic relief, boom hoist kick-outs, automatic boom stop device or derricking limiter. This type of device disengages boom hoist power when the boom reaches a predetermined operating angle. It also sets brakes or closes valves to prevent the boom from lowering after power is disengaged.

Boom length indicator

Indicates the length of the permanent part of the boom (such as ruled markings on the boom) or, as in some computerized systems, the length of the boom with extensions / attachments.

Boom stop

Includes boom stops (belly straps with struts / standoff), telescoping boom stops, attachment boom stops and backstops. These devices restrict the boom from moving above a certain maximum angle and toppling over backward.

Boom suspension system

System of pendants, running ropes, sheaves and other hardware that supports the boom tip and controls the boom angle.

Center of gravity

Point in an object around which its weight is evenly distributed. If you could put a support under that point, you could balance the object on the support.

Certified welder

Welder who meets nationally recognized certification requirements applicable to the task being performed.

Climbing

Process in which a tower crane is raised to a new working height either by adding tower sections to the top of the crane (top climbing) or by a system in which the entire crane is raised inside the structure (inside climbing).

Come-a-long

A mechanical device typically consisting of a chain or cable attached at each end that is used to facilitate movement of materials through leverage.

Competent person

One who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous or dangerous to employees and who has authorization to take prompt corrective measures to eliminate them. Training records are maintained and available.

Controlled load lowering

Lowering a hoisted load with maximum control using the gear train or hydraulic components of a hoist mechanism. Controlled load lowering requires the use of the hoist drive motor, rather than the load hoist brake, to lower the load.

Counterweight

A weight used to supplement the weight of equipment in providing stability for lifting loads by counterbalancing those loads.

Crane location plan (CLP)

A drawing specific to a jobsite that identifies known hazards for underground and overhead crane operations. It specifies an individual area's ability to support the ground pressure produced by operating a crane. The drawing provides a visual representation of where specific cranes are approved to operate and are not approved to operate. The drawing is adjusted routinely to account for changes in site conditions and other factors that affect the safe operation of a crane on the site. The CLP must be approved by a qualified person.

If Skanska is the controlling entity on a jobsite, Skanska must also make the location of underground hazards in the set-up area (e.g., voids, tanks, utilities) available to the user and the operator of all cranes on the jobsite. If hazards are identified in documents (e.g., site drawings, as-built drawings and soil analyses) that are in the possession of Skanska (whether at the site or offsite) or are hazards that are otherwise known to Skanska. Note: this does not relieve each respective user and operator of cranes on the jobsite (e.g., subcontractors) from their responsibility to meet the requirements as stated above.

Crawler crane

Equipment with base mounting that incorporates a continuous belt of sprocket-driven track.

Crossover points

Locations on a wire rope spooled on a drum where one layer of rope climbs up on and crosses over the previous layer. This takes place at each flange of the drum as the rope is spooled onto the drum, reaches the flange and begins to wrap back in the opposite direction.

Dedicated channel

Line of communication assigned by the employer who controls the communication system to only one signal person and crane / derrick or to a coordinated group of cranes / derricks / signal person(s).

Dedicated pile-driver

A machine designed to function exclusively as a pile-driver. These machines typically have the ability to both hoist

and pile—drive the material.

Dedicated spotter (powerlines)

To be considered a dedicated spotter, the requirements of a signal person must be met. The dedicated spotter's sole responsibility is to watch the separation between the power line and the equipment, load line and load, including rigging and lifting accessories. They also ensure, through communication with the operator, that the applicable minimum approach distance is not breached.

Directly under the load

When a part or all of an employee is directly beneath the load.

Dismantling

Includes partial dismantling (i.e., dismantling to shorten a boom or substitute a different component).

Drum rotation indicator

A device on a crane or hoist that indicates in which direction and at what relative speed a particular hoist drum is turning.

Electrical contact

Occurs when a person, object or equipment makes contact or comes in close proximity with an energized conductor or equipment that allows the passage of current.

Encroachment

Where any part of the crane, load line or load (including rigging and lifting accessories) breaches the minimum clearance distance required to be maintained from a power line.

Floating cranes / derricks

Equipment designed by the manufacturer (or employer) for marine use by and is permanently attachment to a barge, pontoons, vessel or other means of flotation.

Free fall (of the load line)

When only the brake is used to regulate the descent of the load line (i.e., the drive mechanism is not used to drive the load down faster or retard its lowering).

Free surface effect

The uncontrolled transverse movement of liquids in compartments which reduces a vessel's transverse stability.

Hoist

A mechanical device for lifting and lowering loads by winding a line onto or off a drum.

Hoisting

The act of raising, lowering or otherwise moving a load in the air with equipment. As used in this policy, "hoisting" can be done by means other than wire rope / hoist drum equipment.

Insulating link / device

An insulating device listed, labeled or accepted by a nationally recognized testing laboratory.

Jib (tower cranes)

On tower cranes, if the "boom" (i.e., principal horizontal structure) is fixed, it is referred to as a jib; if it is moveable up and down, it is referred to as a boom.

Jib stop (also jib backstop)

The same type of device as a boom stop but for a fixed or luffing jib.

Lift director

Directly oversees the work being performed by a crane and the associated rigging crew. The lift director is someone appointed on the jobsite and can be in the capacity of a project manager, project superintendent, foreman or project crane coordinator (PCC).

Lift plan

A construction plan that outlines the step-by-step aspects of a particular lift in detail. It includes a rigging plan and a signal plan.

List

The angle of inclination about the longitudinal axis of a barge, pontoon, vessel or other means of flotation.

Load

Object(s) being hoisted and/or the weight of the object(s); both uses refer to the object(s) and the load-attaching equipment (e.g., the load block, ropes, slings, shackles, and any other ancillary attachment).

Load moment (or rated capacity) limiter

A system that aids the equipment operator by sensing (directly or indirectly) the overturning moment on the equipment (i.e., load multiplied by radius). It compares this lifting condition to the equipment's rated capacity and when the rated capacity is reached, shuts off power to those equipment functions that can increase the severity of loading on the equipment (e.g., hoisting, telescoping out or luffing out). Typically, those functions that decrease the severity of loading on the equipment remain operational (e.g., lowering, telescoping in or luffing in).

Locomotive crane

A crane mounted on a base or car equipped for travel on a railroad track.

Luffing jib limiting device

Similar to a boom hoist limiting device except that it limits the movement of the luffing jib.

Marine hoisted personnel transfer device

A device, such as a "transfer net", that is designed to protect the employees being hoisted during a marine transfer and to facilitate rapid entry into and exit from the device. Such devices do not include boatswain's chairs when hoisted by equipment covered in this document.

Marine worksite

A construction worksite located in, on or above the water.

Mobile crane

A lifting device incorporating a cable-suspended latticed boom or hydraulic telescopic boom designed to be moved between operating locations by transport over the road.

Multi-purpose machine

A machine designed to be configured in various ways, at least one of which allows it to hoist (by means of a winch or hook) and horizontally move a suspended load. For example, a machine that can rotate and can be configured with removable forks / tongs (for use as a forklift).

Nonconductive

An object that, because of the nature and condition of the materials used and the conditions of use (including environmental conditions and condition of the material), has the property of not becoming energized (i.e., it has high dielectric properties offering a high resistance to the passage of current under the conditions of use).

Operational controls

Levers, switches, pedals and other devices for controlling equipment.

Operator

A person who is operating the equipment or a winch pack, jib (with a hook at the end) or jib used in conjunction with a winch. Operators shall be certified by an accredited agency (such as NCCCO or CIC).

Operational aids

are devices that assist the operator in the safe operation of the crane by providing information or automatically taking control of a crane function.

Overhead and Gantry cranes

includes overhead / bridge cranes, semi-gantry, cantilever gantry, wall cranes, storage bridge cranes, launching gantry cranes and similar equipment irrespective of whether it travels on tracks, wheels or other means.

Pendants

Includes both wire and bar types. Wire type: A fixed length of wire rope with mechanical fittings at both ends for pinning segments of wire rope together. Bar type: Instead of wire rope, a bar is used. Pendants are typically used in a latticed boom crane system to easily change the length of the boom suspension system without completely changing the rope on the drum when the boom length is increased or decreased.

Portal crane

A type of crane consisting of a rotating upper structure, hoist machinery and boom mounted on top of a structural gantry which may be fixed in one location or have travel capability. The gantry legs or columns usually have portal openings in between to allow passage of traffic beneath the gantry.

Project crane coordinator (PCC)

The PCC is typically not a full-time position, but rather a multipurpose member of the project staff tasked with crane management for the jobsite. Some of the PCC's duties include verification of completion of daily periodic inspections, verification of operator's licensing and qualification, and completion of routine tasks maintaining the project's compliance with this document.

Proximity alarm

Device that provides a warning of proximity to a power line.

Qualified evaluator (not a certified third party)

Person employed by the signal person's employer who has demonstrated that he/she is competent in accurately assessing whether individuals meet the qualification requirements in this policy for a signal person, rigger and inspector.

Qualified evaluator (certified third party)

An entity that due to its independence and expertise, has demonstrated that it is competent in accurately assessing whether individuals meet the qualification requirements in this policy for a signal person, rigger and inspector.

Qualified Inspector

Skanska or crane rental / Owner company employee who is designated as a manufacture authorized inspector.

Qualified person

Person who, by possession of a recognized degree, certificate or professional standing, or who by extensive knowledge, training and experience, successfully demonstrates the ability to solve / resolve problems relating to the subject matter, the work or the project.

Qualified rigger

Rigger who meets the criteria for a qualified person. Note: Qualified rigger shall be certified per local code or have received competency training through a Skanska approved curriculum.

Range control limit device

Device that can be set by an equipment operator to limit movement of the boom or jib tip to a plane or multiple planes.

Range control warning device

Device that can be set by an equipment operator to warn that the boom or jib tip is at a plane or multiple planes.

Rated capacity

The maximum working load permitted by the manufacturer under specified working conditions. Such working conditions typically include a specific combination of factors such as equipment configuration, radii, boom length and other parameters of use.

Rated capacity indicator

An indicator that tells the operator what percent of capacity they are at. Refer to indicator on the crane.

Rated capacity limiter

See load moment limiter.

Regional crane coordinator (RCC)

The regional crane coordinator may be a full-time position with duties that include oversight and planning of all monthly and annual crane inspections and the overall regional compliance with this document. The RCC shall track the location and status of all cranes and their inspections. Each region will have an RCC.

Repetitive lift-up points

When operating on a short cycle operation, the rope used on a single layer and spooled repetitively over a short portion of the drum.

Rigging plan

Portion of the lift plan related to the method and materials used to rig a load. It specifically details all rigging to be used in the lift.

Running wire rope

A wire rope that moves over sheaves or drums.

Runway

A firm, level surface designed, prepared and designated as a path of travel for the weight and configuration of the crane being used to lift and travel with the crane-suspended load. An existing surface may be used as long as it meets these criteria.

Side boom crane

Track-type or wheel-type tractor with a boom mounted on the side used for lifting, lowering or transporting a load suspended on the load hook. The boom or hook can be lifted or lowered in a vertical direction only.

Signal person

The individual who gives signals to the crane operator. Must be trained per 29 CFR 1926.1428(c) and designated. Qualified signalperson: One who meets the OSHA definition to signal a crane / derrick.

Signal plan

The portion of the lift plan related to signaling throughout the duration of the lift; outlines all signal-related details for the lift.

Special hazard warnings

Warnings of site-specific hazards (e.g., proximity of power lines).

Tagline

A rope (usually fiber) attached to a lifted load for purposes of controlling load spinning and pendular motions or used to stabilize a bucket or magnet during material handling operations.

Tender

Individual responsible for monitoring and communicating with a diver.

Third-party inspector

Certified crane inspector (or qualified inspector approved by the RCC) contracted for a specific purpose, such as the oversight of the erection of a tower crane, monthly and annual inspections on rubber tire, crawler, or barge cranes and Non-Destructive Testing.

Tilt up or tilt down operation / tripping

Raising / lowering a load from the horizontal to vertical or vertical to horizontal position while using one or more lines or using more than one piece of equipment (e.g., cranes, excavators, loaders, dozers).

Tower crane

Type of lifting structure that uses a vertical mast or tower to support a working boom (jib) in an elevated position. Loads are suspended from the working boom.

Travel bogie (tower cranes)

An assembly of two or more axles arranged to permit vertical wheel displacement and equalize the loading on the wheels.

Trim

Angle of inclination about the transverse axis of a barge, pontoon, vessel or other means of floatation.

Two blocking

A condition in which a component that is uppermost on the hoist line, such as the load block, hook block, overhaul ball or similar component, comes in contact with the boom tip, fixed upper block or similar component. This binds the system and continued application of power can cause failure of the hoist rope or other component.

Upper works

The revolving frame of equipment on which the operating machinery (and in many cases the engine) is mounted, along with the operator's cab. The counterweight is typically supported on the rear of the upper structure and the boom or other front end attachment is mounted on the front.

Wire rope

A flexible rope constructed by laying steel wires into various patterns of multi-wired strands around a core system to produce a helically wound rope.

5. General Policy: Regional / Project-Specific Requirements**State**

- None

Regional/Project

- None

2. Site Prep**1. Required Documentation**

It is the responsibility of the PCC and Superintendent to ensure the following documentation is available in the crane of the cab for review prior to crane operations. Crane inspection documentation shall also be available at the Skanska project office.

1. Current Annual Inspection
2. Current Monthly Inspection

3. Manufacturer's Load Chart
4. Manufacturer's Operating Manual
5. Lift Plans
6. Daily Inspection

2. Owner Notification Requirements

It is the responsibility of the project team to comply with client specific requirements regarding crane operations.

3. Geotechnical and Crane Location Plan (CLP) Requirements

1. Prior to commencing crane operations, the project team shall develop a Crane Location Plan (CLP). The CLP will provide the following:

A qualified person must confirm the geotechnical properties are capable of supporting the crane(s) at all crane working locations.

After a rain event that could compromise the stability of the Crane location, an assessment must be performed by a qualified person to confirm the integrity of the Crane location has not been compromised

1. All cranes greater than 250 ton will be placed on crane mats unless the requirement of 2.3.2 is met.
2. The location(s) that the crane will be assembled and disassembled
3. The location(s) that the crane will be operating
4. Identification of potential underground concerns (e.g. utilities, tanks, voids)
5. The CLP will be reviewed each month during the Monthly Crane and Rigging Meeting. If a crane is required to perform operations outside of the designated area defined on the CLP or if a change in ground conditions occurs that could impact the crane's stability, the CLP must be updated to reflect new work location(s) or changed ground conditions. The PCC or Superintendent is responsible for ensuring the geotechnical properties are capable of supporting the crane in the new work area or the area in which the ground conditions have changed.
6. When a crane is moved, a spotter shall be utilized to assist the crane operator with visibility as well as to ensure all personnel and possible obstructions are clear of the crane's path. Prior to crane relocation, the crane's route will be reviewed by the operator and the spotter.

4. Monthly Project Crane Meeting

Each month, the project team will conduct a documented Monthly Crane and Rigging Meeting utilizing the Project Crane and Rigging Meeting Agenda form.

5. Site Prep: Regional / Project-Specific Requirements

- None

3. Operations

1. Authority to Stop Operation / Emergency Stop

All employees have the authority to stop a crane operation when there is a concern for safety. All employees have the right to give an emergency stop signal.

2. Notifications

When there is a need for a Skanska owned or rented crane, the project team shall provide the RCC with a procurement notice 2 weeks prior to intended use date.

3. Safety Devices

All cranes shall have functioning safety devices. If a safety device is not working properly, the device and the crane shall

be taken out of service. The required safety devices are listed on the applicable crane inspection form.

4. Assembly / Disassembly (A/D)

Skanska and/or Manufacturer's Procedures

1. A/D operations must be directed by a professional who meets the criteria for both a competent person and qualified person. Or by a competent person that is assisted by one or more qualified persons.
2. A/D operations are considered a critical pick.
3. An A/D director who understands the applicable A/D procedures will be identified in the CWP and will be on site at all times during A/D operations.
4. Prior to A/D, the A/D director shall review the applicable A/D procedures and ensure compliance with applicable procedures throughout the A/D process.
5. Synthetic slings may only be used for A/D rigging when specifically approved or directed by the manufacturer
6. A/D procedures shall prevent the unintended movement and collapse of any part of the crane by providing adequate support and stability
7. A/D procedures shall not position employees in an area where a crushing hazard exists from unintended movement or collapse.
8. The RCC should review the assembly / disassembly procedures with the A/D Director to ensure correct manufacture's procedures are on-site and being followed, particular the use of a stowed jib.

5. Assembly / Disassembly Crew Responsibilities

Prior to commencing A/D operations, a detailed CWP shall be developed and reviewed with the crew performing the A/D activities. The CWP shall be used to develop the lift plans associated with A/D. Changes to the construction activities or in the event of unforeseen conditions, the CWP shall be updated and the crew will be instructed on the new CWP.

1. Protecting Assembly / Disassembly Crew Members out of Operator View

Prior to an employee positioning themselves in an area that is out of the view of the crane operator where a crushing hazard exists from the potential movement of the crane, the exposed worker shall inform the operator of their intended work location. The operator shall not move the crane until informed by the exposed employee the crushing hazard no longer exists.

2. Working under the Boom, Jib or Other Components

When pins (or similar devices) are being removed, employees shall not be under crane components that could result in a crushing injury.

Exception: If the A/D director demonstrates that site constraints require one or more employees to be under the boom, jib or other components when pins (or similar devices) are being removed. The A/D director must implement procedures that minimize the risk of unintended dangerous movement and minimize the duration and extent of exposure under the hazard. At a minimum, the components must be adequately blocked and, when possible, supported by an assist crane.

3. Capacity Limits

During all phases of A/D, rated capacity limits for loads imposed on the equipment, equipment components, rigging, lifting lugs and equipment accessories must not be exceeded.

4. Blocking Material

When blocking is used to support lattice booms or components, the size, amount, condition and method of stacking the blocking must be sufficient to sustain the loads and maintain stability.

5. Proper Location of Blocking

When blocking is used to support lattice booms or components, blocking must be placed to protect the structural integrity of the equipment and to prevent movement and collapse.

6. Boom and Jib Lift Points

The point(s) of attachment of rigging to a boom (or boom sections or jib or jib sections) must be suitable for preventing structural damage and facilitating safe handling of these components.

7. Center of Gravity

The center of gravity of the load must be identified if it is integral to maintaining stability. Where there is insufficient information to accurately identify the center of gravity, measures designed to prevent unintended dangerous movement resulting from an inaccurate identification of the center of gravity must be used.

8. Stability upon Pin Removal

The boom sections, boom suspension systems (such as gantry A-frames and jib struts) and components must be rigged or supported to maintain stability upon the removal of the pins.

9. Snagging

Suspension ropes and pendants must not be allowed to catch on the boom or jib connection pins or cotter pins,

including keepers and locking pins.

10. **Struck by Counterweights**

Rigging and blocking must be sufficient to minimize the potential for unintended movement from inadequately supported counterweights and from hoisting counterweights.

11. **Boom Hoist Brake Failure**

Each time the boom hoist brake is being relied on to prevent boom movement during A/D; the brake must first be tested. If the brake proves insufficient, a boom hoist pawl, other locking device / back-up braking device or another method of preventing dangerous movement of the boom, such as blocking or an assist crane, and a boom hoist brake failure must be used.

12. **Loss of Backward Stability**

Backward stability must be ensured before swinging the upper works, travel and when attaching or removing equipment components.

13. **Wind Speed and Weather**

The manufacturer's requirements regarding the effects of wind speed shall be identified and adhered to.

14. **Cantilevered Boom Sections**

Manufacturer limitations on the maximum amount of boom supported only by cantilevering must not be exceeded. If the manufacturer's limitations are not available, a registered professional engineer (RPE) familiar with the type of equipment involved must determine the limitation and provide it in writing. The limitation must not be exceeded.

15. **Weight of Components**

The weight of each of the components must be readily available.

16. **Components and Configuration**

The selection of components and configuration of the equipment that affect the capacity or safe operation of the equipment must be in accordance with manufacturer specifications. If specifications are unavailable, a RPE familiar with the type of equipment involved must approve, in writing, the selection and configuration of components. Upon completion of assembly, the equipment must be inspected by a qualified inspector.

17. **Shipping Pins**

Reusable shipping pins, straps, links and similar equipment must be removed. Once removed, they must either be stowed or otherwise stored so they do not present a falling object hazard.

18. **Pile Driving**

Equipment used for pile driving must not have a jib attached during pile driving operations.

19. **Outriggers and Stabilizers**

When the load to be handled and the operating radius require the use of outriggers or stabilizers or at any time when outriggers or stabilizers are used, all of the following requirements must be met (except as otherwise indicated):

1. The outriggers or stabilizers must be either fully extended or, if the manufacturer's procedures permit, deployed as specified in the load chart. The use of outriggers not fully extended will be considered a critical lift.
2. The outriggers must be set to remove the equipment weight from the wheels, except for locomotive cranes. This provision does not apply to stabilizers.
3. When outrigger floats are used, they must be attached to the outriggers. When stabilizer floats are used, they must be attached to the stabilizers.
4. Each outrigger or stabilizer must be visible to the operator or to a signal person during extension and setting

20. **Outrigger and Stabilizer Material**

Outrigger and stabilizer blocking must:

1. Be placed only under the outrigger or stabilizer float / pad of the jack or, where the outrigger or stabilizer is designed without a jack, under the outer bearing surface of the extended outrigger or stabilizer beam
2. Be a minimum 4" solid oak or the equivalent and be sized such that individual pad blocking covers an area equal to three times the overall pad dimension. All blocking will be tightly spaced and in contact with the outrigger pad (cross blocking may be required) or be suitably engineered to carry anticipated loads with a given soil capacity. Equivalent blocking shall be engineered type meeting the same capacity as 4" solid oak, such as composite crane mats.
3. Follow manufacturer's procedures when using locomotive cranes. When lifting loads without using outriggers or stabilizers, the manufacturer's procedures must be met regarding truck wedges or screws.

21. **Operation**

Crane users will comply with all manufacturer procedures applicable to the operational functions of the crane, including its use with attachments. Before starting the engine, the operator will verify that all controls are in the proper starting position and that all personnel are in the clear. The operator must be familiar with the equipment and its proper operation. If adjustments or repairs are necessary, the operator will promptly inform the appropriate party. Where there are successive shifts, the next operator shall also be informed. Safety devices and operational aids will not be used as a substitute for the exercise of professional judgment by the operator.

6. Cell Phones or Other Devices

Only where specifically permitted in writing as part of a CWP, cell phones / tablets / smart devices may be used in connection with work operations where such usage is required to carry out the work but then only in strict accordance with the guidelines set forth for such usage in the CWP.

See Cell Phone / Tablets / Smart Device User Policy located in the EHS Manual.

7. Grounding

1. While working in close proximity (twenty feet or less) to sources of electrical discharge, cranes are to be operated in compliance with OSHA 1926.1501 (a) (15) (vii) to ensure work crew safety.
2. Additionally, all sites must have materials necessary to properly ground cranes and loads as specified in OSHA 1926.1501 (a) (15) (vii) readily available.
3. Grounding procedures must ensure the grounding electrode (rod) or grounding connection has a resistance to ground of 25 ohms or less.

8. Leaving the Equipment Unattended

Leaving the controls while a load is suspended is prohibited.

9. Load Control

1. Where available, hoisting routes that minimize the exposure of employees to hoisted loads must be used, to the extent consistent with public safety. While the operator is not moving a suspended load, no employee shall be within the fall zone, except for employees:
 1. Engaged in hooking, unhooking or guiding a load
 2. Engaged in the initial attachment of the load to a component or structure
 3. Operating a concrete hopper or concrete bucket
2. When employees are engaged in hooking, unhooking, guiding the load or in the initial connection of a load to a component or structure and are within the fall zone, all of the following criteria shall be met:
 1. The materials being hoisted must be rigged to prevent unintentional displacement
 2. Hooks with self-closing latches or their equivalent must be used

10. Receiving a Load

1. Only those employees needed to receive a load are permitted to be within the fall zone when a load is being landed. These employees must be on the construction work plan.
2. During a tilt-up or tilt-down operation:
 1. No employee can be directly under the load. Only employees essential to the operation are permitted in the fall zone (but not directly under the load).
An employee is essential to the operation if the employee is conducting one of the following operations and the employer can demonstrate it is infeasible for the employee to perform that operation from outside the fall zone:
 2. Physically guiding the load
 3. Closely monitoring and giving instructions regarding the load's movement
 4. Either detaching it from or initially attaching it to another component or structure (such as, but not limited to, making an initial connection or installing bracing)
3. Note: Boom free fall is prohibited when an employee is in the fall zone of the boom or load, and load line free fall is prohibited when an employee is directly under the load.

11. Free Fall and Controlled Load Lowering

1. Boom Free Fall Prohibitions

The use of equipment in which the boom is designed to free fall (live boom) is prohibited in each of the following circumstances:

1. An employee is in the fall zone of the boom or load
2. An employee is being hoisted

3. The load or boom is directly over a power line, or over any part of the area extending the Table A clearance distance to each side of the power line
4. The load is over a shaft or a cofferdam, except where there are no employees in the fall zone

2. Preventing Boom Free Fall

Where the use of equipment with a boom that is designed to free fall (live boom) is prohibited, the boom hoist will have a secondary mechanism or device designed to prevent the boom from falling in the event the primary system used to hold or regulate the boom hoist fails, as follows:

1. Friction drums will have:
 1. A friction clutch and, in addition, a braking device to allow for controlled boom lowering
 2. A secondary braking or locking device that is manually or automatically engaged to back up the primary brake while the boom is held (such as a secondary friction brake or a ratchet and pawl device)
2. Hydraulic drums will have an integrally mounted holding device or internal static brake to prevent boom hoist movement in the event of hydraulic failure
3. Neither clutches nor hydraulic motors will be considered brake or locking devices for purposes of this document
4. Hydraulic boom cylinders will have an integrally mounted holding device

3. Preventing Uncontrolled Retraction

Hydraulic telescoping booms will have an integrally mounted holding device to prevent the boom from retracting in the event of hydraulic failure.

4. Load Line Free Fall

In each of the following circumstances, controlled load lowering is required and free fall of the load line hoist is prohibited:

1. An employee is directly under the load
2. An employee is being hoisted
3. The load is directly over a power line or over any part of the area extending the Table A clearance distance to each side of the power line (refer to the Electrical section)
4. The load is over a shaft or cofferdam where people may be present

12. Compliance with Rated Capacity

The equipment will not be operated in excess of its rated capacity.

13. Load Weight

1. The weight of the load will be determined from a reliable source (such as the manufacturer of the contents of the load), by a reliable calculation method (such as calculating a steel beam from measured dimensions and a known per foot weight) or by other equally reliable means.
2. All load information will be provided to the operator via the Skanska lift plan / CWP prior to the lift. The operator will verify that the load is within the rated capacity of the equipment by slowly beginning to hoist the load to determine its weight, using a load weighing device, load moment indicator, rated capacity indicator or rated capacity limiter.
3. Additionally:
 1. The boom or other parts of the equipment will not contact any obstruction
 2. The equipment will not be used to drag or pull loads sideways
 3. The operator will test the brakes each time a load that is 90 percent or more of the maximum line pull is handled by lifting the load a few inches and applying the brakes. In duty cycle and repetitive lifts where each lift is 90 percent or more of the maximum line pull, this requirement applies to the first lift but not to successive lifts.
 4. Neither the load nor the boom will be lowered below the point where less than two full wraps of rope remain on their respective drums
 5. A tag or restraint line will be used if necessary to prevent rotation of the load that would be hazardous
 6. The brakes will be adjusted in accordance with manufacturer procedures to prevent unintended movement
 7. The operator will obey a stop or an emergency stop signal, irrespective of who gives it

14. Use of Load Chart

The competent personnel involved in designing and executing a lift, including the operator, must know how to use a load chart. This includes understanding:

1. The terminology necessary to interpret load charts
2. How to ensure that the load chart is the appropriate chart for the equipment in its particular configuration and application
3. The operational limitations of load charts and footnotes
4. How to relate the chart to the configuration of the crane, crawlers, outriggers / stabilizers extended or retracted, jib erected or offset and various counterweight configurations
5. The difference between structural capacity and capacity limited by stability
6. What is included in capacity ratings
7. The range diagram and its relationship to the load chart
8. The work area chart and its relationship to the load chart
9. Where to find and how to use the "parts-of-line" information
10. How to use the load chart together with the load indicators and/or load moment devices

15. Work Area Control

1. The following requirements apply where there are accessible areas in which the equipment's swing radius or rotating superstructure, whether permanently or temporarily mounted, poses a reasonably foreseeable risk of:
 1. Striking and injuring an employee
 2. Pinching / crushing an employee against another part of the equipment or another object
2. **To Prevent Employees from Entering These Hazard Areas**
 1. Skanska / crane user must inform each employee assigned to work on or near the equipment ("authorized personnel") of how to recognize struck-by and pinch / crush hazard areas posed by the rotating superstructure. Control lines, warning lines, railings or similar barriers to mark the boundaries of the hazard areas will be erected and maintained.
 2. Exception: When Skanska / crane user can demonstrate that it is neither feasible to erect such barriers on the ground nor on the equipment, the hazard areas must be clearly marked by a combination of warning signs (such as "Danger — Swing / Crush Zone") and high visibility markings on the equipment that identify the hazard areas. In addition, Skanska / crane user must train each employee to understand what these markings signify.
3. **Protecting Employees in the Hazard Area**
 1. Before an employee enters a location in the hazard area that is out of view of the operator, the employee (or someone instructed by the employee) must ensure that the operator is informed that he/she is going to that location.
 2. Where the operator knows that an employee went to a location covered by this section, the operator must not rotate the superstructure until the operator is informed in accordance with a prearranged system of communication that the employee is in a safe position.
 3. Where any part of a crane / derrick is within the working radius of another crane / derrick, the controlling entity must institute a system to coordinate operations.
 4. If there is no controlling entity, the employer (if there is only one employer operating the multiple pieces of equipment), or employers, must institute such a system.

16. Pre-Operational / Pre-Lift Meeting

1. For any operation requiring the use of a crane, a pre-operational meeting is required to review the appropriate lift plan prior to making any lifts.
2. The meeting should include the operator, signal person and all crew members involved in rigging and handling the load.
3. The lift director identified in the CWP will hold the Pre-lift meeting. During the meeting, the lift director's responsibility will be to directly oversee the work being performed by the crane and the associated rigging crew. Initial and change.
4. This meeting will be used to make sure everyone involved in the lift is well versed on all details, including what rigging will be used, how the load will be rigged, the exact lift path of the load, who will be giving signals, the method of signaling, where the signaler will be located, etc. It should never be assumed that any member of the crew is aware of any single aspect of the lift. Therefore all aspects should be reviewed at the pre-operational /

pre-lift meeting.

17. Lift and Carry

1. A lift and carry is always treated as a critical lift and must be approved by the appropriate management personnel.
2. A competent person must supervise the operation, determine if it is necessary to reduce rated capacity and make determinations regarding load position, boom location, ground support, travel route, overhead obstructions and speed of movement necessary to ensure safety.
3. For equipment with tires, tire pressure and the load location specified by the manufacturer must be maintained.
4. The rotational speed of the equipment must be controlled that the load does not swing out beyond the radius at which it can be controlled.

18. Operator Requirements and Responsibilities

All crane operator shall be certified by a nationally accredited certification authority such as NCCCO (National Commission for the Certification of Crane Operators), Crane Institute Certification (CIC), National Center for Construction, Education and Research (NCCER) or equivalent and provide to the PCC satisfactory evidence to establish their qualification to operate the specific equipment. The operator is responsible for the safe operation of the crane and successful execution of lifts.

19. Operations: Regional / Project-Specific Requirements

- None

4. Lift Planning

Operations requiring the use of a crane require the project team to develop a lift plan utilizing the Lift Plan section of the CWP. The use of an alternative lift plan, other than the CWP, is allowed, as long as all the CWP elements are addressed in the alternative lift plan. The details of the alternative lift plan must still be included in the lift plan tab of the CWP. Upon completion of the lift plan, it will be utilized to train those involved in the crane operation on the specifics of the lift and the safety controls that will be implemented. Lift plans that are classified as a critical lift or involve the lifting of personnel require the RCC's review. If a revision to the lift plan is required, the operation must stop and the current lift plan must be updated and the PCC must be notified prior to any further action taking place.

1. Lift Classification

A classification of the lift must be determined after evaluating the weight of the object, capacity of the crane and the radius throughout the lift. It is important to note that "capacity" refers to the capacity listed on the load chart posted in the cab of the crane.

2. Planned Personnel Lifts

The use of a crane to hoist employees on a personnel platform will be prohibited except when the use of conventional means of reaching a task would be more hazardous or is not possible because of jobsite conditions. In such cases, the project team must request a dispensation for the use of personnel platforms by the Skanska EHS Department and the RCC. The CWP must address the use of the personnel platform or man basket and the Planned Personnel Lift Summary Sheet shall be completed and signed by required Skanska management team.

The personnel platform or man basket must be designed and stamped by a PE.

1. Use of Personnel Platform

The use of personnel platforms shall meet the requirements set forth in this manual. An exception is drill shafts (refer to the Lift Planning – Planned Personnel Lift section for information).

2. Equipment Criteria

1. Use of suspended personnel platforms

The total load (with the platform loaded, including the hook, load line and rigging) must not exceed 50 percent of the rated capacity for the radius and configuration of the equipment, except during proof testing. Check the Lift Plan section of the CWP to reduce lifting capacity to 50 percent.

When the occupied personnel platform is in a stationary working position, the load and boom hoist brakes, swing brakes and operator-actuated secondary braking and locking features, such as pawls or dogs, or automatic secondary brakes must be engaged.

2. Use of boom-attached personnel platforms

The total weight of the loaded personnel platform must not exceed 50 percent of the rated capacity for the radius and configuration of the equipment except during proof testing.

3. Hoisting personnel without a personnel platform

The total load, including the hook, load line, rigging and any other equipment that impose a load, must not exceed 50 percent of the rated capacity for the radius and configuration of the equipment when hoisting personnel without a personnel platform, except during proof testing.

3. Devices

1. Equipment (except for derricks and articulating cranes) with a variable angle boom must be equipped with all of the following:
 1. A boom angle indicator, readily visible to the operator
 2. A boom hoist limiting device
2. Articulating cranes must be equipped with a properly functioning automatic overload protection device.
3. Equipment with a luffing jib must be equipped with:
 1. A jib angle indicator, readily visible to the operator
 2. A jib hoist limiting device
4. Equipment with telescoping booms must be equipped with a device to indicate the boom's extended length clearly to the operator or must have measuring marks on the boom.
5. Anti two-block
 1. A device that automatically prevents damage and load failure from contact between the load block, overhaul ball or similar component and the boom tip (or fixed upper block or similar component) must be used. The device(s) must prevent such damage / failure at all points where two-blocking could occur.
 2. Exception: This device is not required when hoisting personnel in pile driving operations; rather it specifies how to prevent two-blocking during such operations.
 3. Removal of the Anti two-block must have approval by the RCC and a Vice President
6. Controlled load lowering
 1. The load line hoist drum must have a system, other than the load line hoist brake, that regulates the lowering rate of speed of the hoist mechanism. This system or device must be used when hoisting personnel.
 2. Free fall of the load line hoist is prohibited. The use of equipment in which the boom hoist mechanism can free fall is also prohibited.
 3. Personnel hoisting operations must not begin unless the devices listed in this section are in proper working order. If a device stops working properly during such operations, the operator must safely stop operations. Personnel hoisting operations must not resume until the device is again working properly. Alternative measures are not permitted.
 4. Direct attachment of a personnel platform to a luffing jib is prohibited.

4. Personnel Platform Criteria

1. The system used to connect the personnel platform to the equipment must allow the platform to remain within 10 degrees of level, regardless of boom angle.
2. The suspension system must be designed to minimize tipping of the platform due to movement of employees occupying the platform.
3. The personnel platform itself (excluding the guardrail system and personal fall arrest system anchorages) must be capable of supporting, without failure, its own weight and at least five times the maximum intended load.
4. All welding of the personnel platform and its components must be performed by a certified welder familiar with the weld grades, types and material specified in the platform design.
5. The personnel platform must be equipped with a guardrail system that meets the requirements of OSHA 1926 Subpart M, and it must be enclosed at least from the toe board to mid-rail with either solid construction material or expanded metal having openings no greater than 1/2 inch (1.27 cm).
6. Points to which personal fall arrest systems are attached must meet the anchorage requirements in OSHA 1926.502. A grab rail must be installed inside the entire perimeter of the personnel platform except for access gates / doors.
7. If installed, access gates / doors of all types (including swinging, sliding, folding or other types) must:
 1. Not swing outward. If, due to the size of the personnel platform, such as a one-person platform, it is not feasible for the door to swing inward and allow safe entry for the platform occupant, then the access gate / door may swing outward
 2. Be equipped with a device that prevents accidental opening
 3. Have headroom sufficient to allow employees to stand upright in the platform

8. In addition to the use of hard hats, employees must be protected by overhead protection on the personnel platform when employees are exposed to falling objects.
9. The platform overhead protection must not obscure the view of the operator or platform occupants (such as wire mesh that has up to 1/2" openings), unless full protection is necessary.
10. All edges exposed to employee contact must be smooth enough to prevent injury.
11. The weight of the platform and its rated capacity must be conspicuously posted on the platform with a plate or other permanent marking.

5. Personnel Platform Loading

1. The personnel platform must not be loaded in excess of its rated capacity. Personnel platforms must be used only for employees, their tools and the materials necessary to do their work. Platforms must not be used to hoist materials or tools when not hoisting personnel.
Exception: Materials and tools to be used during the lift, if secured and distributed in accordance with paragraph (8.1.6) (c) of OSHA 1926, may be in the platform for trial lifts.
2. Materials and tools must be:
 1. Secured to prevent displacement
 2. Evenly distributed within the confines of the platform while it is suspended
3. The number of employees occupying the personnel platform must not exceed the maximum number the platform was designed to hold or the number required to perform the work, whichever is less.

6. Attachment and Rigging

Hooks and other detachable devices:

1. Hooks used in the connection between the hoist line and the personnel platform (including hooks on overhaul ball assemblies, lower load blocks, bridle legs or other attachment assemblies or components) must be:
 1. Of a type that can be closed and locked, eliminating the throat opening
 2. Closed and locked when attached
2. Shackles used in place of hooks must be a Crosby shackle, with either a bolt, nut and retaining pin in place or of the screw type with the screw pin secured preventing accidental removal
3. Where other detachable devices are used, they must be of the type that can be closed and locked to the same extent as the devices addressed in the beginning of this section. Such devices must be closed and locked when attached.
4. When a rope bridle is used to suspend the personnel platform, each bridle leg must be connected to a master link or shackle in a manner that ensures that the load is evenly divided among the bridle legs
5. Rigging hardware (including wire rope, shackles, rings, master links and other rigging hardware) and hooks must be capable of supporting, without failure, at least five times the maximum intended load applied or transmitted to that component. Where rotation-resistant rope is used, the slings must be capable of supporting without failure at least ten times the maximum intended load.
6. Eyes in wire rope slings must be fabricated with thimbles
7. Bridles and associated rigging for suspending the personnel platform must be used only for the platform and the necessary employees, their tools and materials necessary to do their work.
8. The bridles and associated rigging must not have been used for any purpose other than hoisting personnel

7. Trial Lift and Inspection

1. A trial lift with the unoccupied personnel platform loaded at least to the anticipated lift weight must be made from ground level or from any other location where employees will enter the platform, to each location at which the platform will be hoisted and positioned. Where there is more than one location to be reached from a single set-up position, either individual trial lifts for each location or a single trial lift, in which the platform is moved sequentially to each location, must be performed. The method selected must be the same as the method that will be used to hoist the personnel. The trial lift must be performed immediately prior to each shift in which personnel will be hoisted. In addition, the trial lift must be repeated prior to hoisting employees in each of the following circumstances:
 1. The equipment has been moved and set up in a new location or returned to a previously used location
 2. The lift route has changed, unless the competent person determines that the new route presents no new factors affecting safety
2. The competent person must determine that:
 1. Safety devices and operational aids required by this section are activated and functioning properly
 2. Nothing interferes with the equipment or the personnel platform in the course of the trial lift
 3. The lift will not exceed 50 percent of the equipment's rated capacity at any time during the lift
 4. The load radius to be used during the lift has been accurately determined
3. Immediately after the trial lift, the competent person must:
 1. Conduct a visual inspection of the equipment, base support or ground and personnel platform to determine whether the trial lift has exposed any defect or problem or produced any adverse effect

2. Confirm that, upon the completion of the trial lift process, the test weight has been removed
4. Immediately prior to each lift:
 1. The platform must be hoisted a few inches with the personnel and materials / tools on board and inspected by a competent person to ensure that it is secure and properly balanced
5. The following conditions must be determined by a competent person to exist before the lift of personnel proceeds:
 1. Hoist ropes must be free of deficiencies
 2. Multiple part lines must not be twisted around each other
 3. The primary attachment must be centered over the platform; if the load rope is slack, the hoisting system must be inspected to ensure that all ropes are properly seated on drums and in sheaves
6. Any condition found during the trial lift and subsequent inspections that fails to meet a requirement of this policy or otherwise creates a safety hazard must be corrected before hoisting personnel.
8. **Proof Testing**
 1. Prior to hoisting employees on the personnel platform and after any repair or modification, the platform and rigging must be proof tested to 125 percent of the platform's rated capacity. The proof test may be done concurrently with the trial lift.
 2. The platform must be lowered by controlled load lowering then braked and held in a suspended position for a minimum of five minutes with the test load evenly distributed on the platform.
 3. After proof testing, a competent person must inspect the platform and rigging to determine if the test has been passed. If any deficiencies are found that pose a safety hazard, the platform and rigging must not be used to hoist personnel unless the deficiencies are corrected, the test is repeated and a competent person determines that the test has been passed.
 4. Personnel hoisting must not be conducted until the competent person determines that the platform and rigging have successfully passed the proof test.
9. **Work Practices**
 1. Hoisting of the personnel platform must be performed in a slow, controlled, cautious manner with no sudden movements of the equipment or the platform.
 2. Platform occupants must:
 1. Keep all parts of the body inside the platform during raising, lowering and horizontal movement. This provision does not apply to an occupant of the platform when necessary to position the platform or while performing the duties of a signal person
 2. Refrain from standing, sitting on or working from the top or intermediate rail or toe board or use any other means / device to raise their working height
 3. Refrain from pulling the platform out of plumb in relation to the hoisting equipment
 4. Secure the platform to the structure where work is to be performed before exiting or entering a hoisted personnel platform that is not landed, unless the crane user can demonstrate that securing to the structure would create a greater hazard
 3. If the platform is tied to the structure, the operator must not move the platform until he/she receives confirmation that it is freely suspended.
 4. Tag lines must be used when necessary to control the platform.
 5. **Platforms without controls**
Where the platform is not equipped with controls, the equipment operator must remain at the equipment controls, onsite and in view of the equipment at all times while the platform is occupied.
 6. **Platforms with controls**
Where the platform is equipped with controls, all of the following must be met at all times while the platform is occupied:
 1. The occupant using the controls in the platform must be a qualified person with respect to their use, including the safe limitations of the equipment and hazards associated with its operation
 2. The equipment operator must be at a set of equipment controls that include boom and swing functions of the equipment and must be onsite and in view of the equipment
 3. The platform operating manual must be in the platform or on the equipment
 7. **Wind**
When wind speed, sustained or gusts, exceeds 20 mph at the personnel platform, a qualified person must determine if, in light of the wind conditions, it is safe to lift personnel. If it is not, the lifting operation must not begin, or if already in progress, it must be terminated.
 8. **Other Weather and Environmental Conditions**
A qualified person must determine if, in light of indications of dangerous weather conditions, or other impending or existing danger, it is safe to lift personnel. If it is not, the lifting operation must not begin, or if already in progress, must be terminated. Employees being hoisted must remain in direct communication

with the signal person or the operator.

9. Fall Protection

Except over water, employees occupying the personnel platform must be provided and use a personal fall arrest system. The system must be attached to a structural member within the personnel platform. When working over or near water, the requirements of OSHA 1926.106 apply. The fall arrest system, including the attachment point (anchorage), must meet the requirements in OSHA 1926.502.

10. Other Load Lines

No lifts will be made on any other of the equipment's load lines while personnel are being hoisted, except in pile driving operations.

11. Factory-Produced Boom-Mounted Personnel Platforms that Incorporate a Winch as Original Equipment

Loads are permitted to be hoisted by such a winch while employees occupy the personnel platform only where the load on the winch line does not exceed 500 pounds and does not exceed the rated capacity of the winch and platform.

12. Traveling—Equipment other than Derricks

Hoisting of employees while the equipment is traveling is prohibited, except for:

1. Equipment that travels on fixed rails
2. Where the employer demonstrates that there is no less hazardous way to perform the work. This exception does not apply to rubber-tired equipment
Where employees are hoisted while the equipment is traveling, all of the following criteria must be met:
3. Equipment travel must be restricted to a fixed track or runway
4. Where a runway is used, it must be a firm, level surface designed, prepared and designated as a path of travel for the weight and configuration of the equipment being used to lift and travel with the personnel platform. An existing surface may be used as long as it meets these criteria.
5. Equipment travel must be limited to boom length
6. The boom must be parallel to the direction of travel, except where it is safer to do otherwise
7. A complete trial run must be performed to test the route of travel before employees are allowed to occupy the platform. This trial run can be performed at the same time as the trial lift which tests the lift route

13. Traveling—Derricks Prohibited

Derricks are prohibited from traveling while personnel are hoisted.

10. Pre-Lift Meeting

A pre-lift meeting must be held to review the applicable requirements of this section and the procedures that will be followed. It will be attended by the equipment operator, signal person (if used for the lift), employee(s) to be hoisted and the person responsible for the task to be performed. The pre-lift meeting will be held prior to the trial lift at each new work location and must be repeated for any employees newly assigned to the operation.

11. Hoisting Personnel near Power Lines

Hoisting personnel within 25 feet of a power line that is up to 350 kV and hoisting personnel within 50 feet of a power line that is over 350 kV is prohibited, except for work covered by the Power Transmission and Distribution section.

12. Hoisting Personnel in Drill Shafts

When hoisting employees into and out of drill shafts that are up to and including 8 feet in diameter, all of the following requirements must be met:

1. The employee must be in either a personnel platform or on a boatswain's chair.
2. If using a personnel platform, paragraphs (a) through (n) of 1926.1400 apply.
3. If using a boatswain's chair, the following paragraphs of OSHA 1926.1400 apply:
(a), (c), (d) (1), (d) (3), (d) (4), (e) (1), (e) (2), (e) (3), (f) (1), (f) (2) (i), (f) (3) (i), (g), (h), (k) (1), (k) (6), (k) (8), (k) (9), (k) (11) (i), (m), (n).
Where the terms "personnel platform" or "platform" are used in these paragraphs, substitute "boatswain's chair".
4. A signal person must be stationed at the shaft opening.
5. The employee must be hoisted in a slow, controlled descent and ascent.
6. The employee must use personal fall protection equipment, including a full body harness, attached independent of the crane / derrick.
7. The fall protection equipment must meet the applicable requirements in OSHA 1926.502.
8. The boatswain's chair itself (excluding the personal fall arrest system anchorages) must be capable of supporting, without failure, its own weight and at least five times the maximum intended load.
9. No more than one person must be hoisted at a time.

13. Hoisting Personnel for Pile Driving Operations

When hoisting an employee in pile driving operations, the following requirements must be met:

1. The employee must be in a personnel platform or boatswain's chair.
2. For lattice boom cranes, clearly mark the cable (so that it can easily be seen by the operator) at a point that will give the operator sufficient time to stop the hoist to prevent two-blocking or use a spotter who is in direct communication with the operator to inform the operator when this point is reached.
3. For telescopic boom cranes, clearly mark the cable (so that it can be easily seen by the operator) at a point that will give the operator sufficient time to stop the hoist to prevent two blocking and use a spotter who is in direct communication with the operator to inform the operator when this point is reached.
4. If using a personnel platform, paragraphs OSHA 1926.1400 (b) through (n) of this section apply.
5. If using a boatswain's chair, the following paragraphs of OSHA 1926.1400 apply:
(a), (c), (d) (1), (d) (3), (d) (4), (e) (1), (e) (2), (e) (3), (f) (1), (f) (2) (i), (f) (3) (i), (g), (h), (j), (k) (1), (k) (6), (k) (8), (k) (9), (k) (11) (i), (m), and (n).
6. Where the terms "personnel platform" or "platform" are used in these paragraphs, substitute "boatswain's chair."
7. The employee must be hoisted in a slow, controlled descent and ascent.
8. The employee must use personal fall protection equipment, including a full body harness, independently attached to the lower load block or overhaul ball.
9. The fall protection equipment must meet the applicable requirements in OSHA 1926.502.
10. The boatswain's chair itself (excluding the personal fall arrest system anchorages) must be capable of supporting, without failure, its own weight and at least five times the maximum intended load.
11. No more than one person may be hoisted at a time.

14. Operational Aids

1. The devices listed as operational aids are required on all equipment covered under Skanska's crane policy, unless otherwise specified.
2. Operations will not begin unless the listed operational aids are in proper working order, except where Skanska / crane user meets the specified temporary alternative measures. More protective alternative measures specified by the crane / derrick manufacturer, if any, shall be followed.
3. If a listed operational aid stops working properly during operations, the operator will safely stop operations until the temporary alternative measures are implemented or the device is again working properly. If a replacement part is no longer available, the use of a substitute device that performs the same type of function is permitted and is not considered a modification under OSHA 1926.1434 – Category I operational aids and alternative measures.
4. Operational aids that are not working properly will be repaired no later than seven days after the deficiency occurs.
Exception: If the employer documents that it has ordered the necessary parts within seven days of the occurrence of the deficiency, the repair will be completed within seven days of receipt of the parts.

15. Boom Hoist Limiting Device

For equipment manufactured after December 16, 1969, a boom hoist limiting device is required. Temporary alternative measures (use at least one) are as follows:

1. Use a boom angle indicator
2. Clearly mark the boom hoist cable (so that it can easily be seen by the operator) at a point that will give the operator sufficient time to stop the hoist to keep the boom within the minimum allowable radius. In addition, install mirrors or remote video cameras and displays if necessary for the operator to see the mark.
3. Clearly mark the boom hoist cable (so that it can easily be seen by a spotter) at a point that will give the spotter sufficient time to signal the operator and have the operator stop the hoist to keep the boom within the minimum allowable radius.
4. If the equipment was manufactured on or before December 16, 1969 and was not originally equipped with a boom hoist limiting device, at least one of the measures in paragraphs (d)(1)(i)(A) through (C) of OSHA 1926.1400 shall be used on a permanent basis

16. Luffing Jib Limiting Device

Equipment with a luffing jib will have a luffing jib limiting device. Temporary alternative measures are the same as in paragraph (d) (1) (i) of OSHA 1926.1400, except to limit the movement of the luffing jib rather than the boom hoist.

17. Anti Two-Blocking Device

1. Telescopic boom cranes

1. Telescopic boom cranes manufactured after February 28, 1992, will be equipped with a device that automatically prevents damage from contact between the load block, overhaul ball or similar component and the boom tip (or fixed upper block or similar component). The device(s) must prevent such damage at all points where two-blocking could occur.
2. Temporary alternative measures: Clearly mark the cable (so that it can easily be seen by the operator) at a point that will give the operator sufficient time to stop the hoist to prevent two-blocking, and use a spotter when extending the boom.

2. Lattice boom cranes

1. Lattice boom cranes manufactured after Feb 28, 1992, will be equipped with a device that either automatically prevents damage and load failure from contact between the load block, overhaul ball or similar component and the boom tip (or fixed upper block or similar component) or warns the operator in time for the operator to prevent two-blocking. The device(s) must prevent such damage / failure or provide adequate warning for all points where two-blocking could occur.
2. Lattice boom cranes and derricks manufactured one year after the effective date of this standard will be equipped with a device that automatically prevents damage and load failure from contact between the load block, overhaul ball, or similar component and the boom tip (or fixed upper block or similar component). The device(s) must prevent such damage / failure at all points where two-blocking could occur.
3. Exception: The requirements of this section do not apply to such lattice boom equipment when used for dragline, clamshell (grapple), magnet, drop ball, container handling, concrete bucket and marine operations that do not involve hoisting personnel and pile driving work.
4. Temporary alternative measures: Clearly mark the cable (so that it can easily be seen by the operator) at a point that will give the operator sufficient time to stop the hoist to prevent two blocking or use a spotter.

3. Category II operational aids and alternative measures

1. Operational aids that are not working properly will be repaired no later than 30 days after the deficiency occurs.
2. Exception: If the employer can document that it has ordered the necessary parts within seven days of the occurrence of the deficiency and the part is not received in time to complete the repair in 30 days, the repair will be completed within seven days of receipt of the parts.

4. Boom Angle or Radius Indicator

1. The equipment will have a boom angle or radius indicator readable from the operator's station.
2. Temporary alternative measures: Radii or boom angle will be determined by measuring the radii or boom angle with a measuring device.

5. Jib Angle Indicator (if the equipment has a luffing jib)

Temporary alternative measures: Radii or jib angle will be determined by ascertaining the main boom angle and then measuring the radii or jib angle with a measuring device.

6. Boom Length Indicator

When the equipment is equipped with a telescopic boom, except where the rated capacity is independent of the boom length, one of the following methods will be used:

1. Mark the boom with measured marks to calculate boom length
2. Calculate boom length from boom angle and radius measurements
3. Measure the boom with a measuring device

7. Load weighing and similar devices

1. Equipment (other than derricks) manufactured after March 29, 2003 with a rated capacity over 6,000 pounds will have at least one of the following:
 1. Load weighing device
 2. Load moment (or rated capacity) indicator
 3. Load moment (or rated capacity) limiter
2. Temporary alternative measures: The weight of the load will be determined from a reliable source (e.g., the load's manufacturer), by a reliable calculation method (i.e., calculating a steel beam from measured dimensions and a known per foot weight) or by other equally reliable means. This information will be provided to the operator prior to the lift.
3. The following devices are required on equipment manufactured after January 1, 2008:
 1. Outrigger position (horizontal beam extension) sensor / monitor. If the equipment has outriggers the operator will verify that the position of the outriggers is correct (in accordance with manufacturer procedures) before beginning operations requiring outrigger deployment.
 2. Hoist drum rotation indicator. If the drum is not visible from the operator's station mark the drum. In addition, install mirrors or remote video cameras and displays if necessary for the operator to see the mark.

3. Critical Lift

1. A lift is a critical lift when:

1. More than 75 percent of the crane's load chart as configured is being utilized during the lift

2. The lift requires more than one crane
3. The load on the crane cannot be accurately determined including pulling or side loading
4. Equipment that has an operator's seat is being lifted
5. Lift and Carry: The lift is considered a critical lift and the critical lift checklist must be completed.
6. Using a crane with partially extended outriggers
7. The lift is to be performed where the possibility of contacting overhead power lines is present.
8. Documented approval shall be obtained by the RCC, PCC, Project Manager and EHS prior to a critical lift.

2. Plan Development

Planning for a crane operation in which more than one crane will be supporting the load must meet the following requirements:

1. The plan must be developed by a qualified person
2. Where the qualified person determines that engineering expertise is needed for the planning, Skanska must ensure that it is provided

3. Plan Implementation

1. The multiple-crane lift must be supervised by a person who meets the criteria for both a competent person and a qualified person, or by a competent person who is assisted by one or more qualified persons
2. The supervisor must review the plan with all workers who will be involved with the operation
3. Some local governing agencies may require notification before a multiple crane lift

4. Major Lift

1. A lift is a major lift when:

The item lifted has a significant impact to the project schedule or budget.

Depending on the weight of the object and the capacity of the crane, a lift could be classified as both a critical and major lift, in which case the critical lift checklist and approvals are required.

5. Standard Lift

If the weight of the object and its radius throughout the duration of the lift are such that it is less than 75 percent capacity of the crane's capacity, and if none of the major or critical lift items are present, then it is a standard lift. A CWP and Lift Plan must be completed.

6. Repetitive / Similar Lifts

1. If a crew makes the same lift throughout the day, they need only go through the standard lift process once at the beginning of the day. For example, if the task is to remove spoils from an area with a 45-ton cherry lifter and a skip pan, then the weight of the skip pan and radius needs to be evaluated once.
2. A pre-operational meeting must take place before the first lift, and the crew can continue to work at the same operation with the same plan and no additional pre-operational meetings are required, with the exception that all rigging must be visually inspected prior to every lift.
3. However, if any significant aspect of the operation changes (a larger skip pan is substituted for the one in the plan, the spoils need to be placed in a location that requires a longer boom and larger radius, the nature of the spoils change and therefore the weight of the load changes, or any change is made to any single detail of the operation), an On-the-Spot lift plan shall be made and the prelift meeting should take place again.

7. Multiple Crane Lifts

A lift with more than one crane qualifies as a Critical Lift. See the Critical Lift Section.

8. Lift Planning: Regional / Project-Specific Requirements

- None

9. On-the-Spot Lift Plan

If during crane operations a load needs to be lifted that wasn't part of the CWP associated with the lift plan, but meets the definition of a "Standard Lift", an On-the-Spot lift plan must be created and pre-lift meeting shall take place.

5. Maintenance and Inspection

1. Inspection and Oversight Requirements

1. Prior to crane operations, the PCC shall verify that the crane has a current annual and monthly inspection and present in the cab of the crane.
2. For Skanska owned or rented cranes that are not current with the required inspections, the RCC will be notified who will schedule the inspection.
3. Subcontractors will be responsible for ensuring their cranes are current with the required inspections. Cranes shall not operate until inspections are current.

2. On-Hire / Off-Hire Inspections

1. It is the responsibility of the PCC to ensure Skanska owned and cranes being rented by Skanska receive an on-hire inspection when it arrives to the project, utilizing the On / Off Hire Checklist. The intent is to identify and document incidental damage to the crane in order to protect Skanska from potential claims for pre-existing damage. Photos of damage shall be taken.
2. Prior to a Skanska owned or rented crane leaving the project, an off-hire inspection shall be conducted to document the condition of the crane with new photographs showing all previously existing damage as well as any new damage. Both reports will be included in the crane file maintained by the RCC.

3. Inspection Requirements

1. Inspection Requirements
 1. If a company-owned or rented crane does not have a current monthly inspection, the RCC will determine whether the crane will need to have a monthly inspection completed on that crane.
 2. The on-hire inspection should be completed as soon as the crane is assembled and prior to going to work.
 3. A full monthly inspection will be completed on rentals longer than five consecutive days.
 4. If a rental is less than five consecutive days, then daily inspections should be performed by the appropriate parties.
 5. If a crane is performing in a "Low Boom / High Duty cycle" configuration, a weekly inspection shall be required. These inspections shall focus on the areas of the crane cables that are most frequently being exposed to high wear repeatedly over the sheaves.

The following mandatory inspections apply to all cranes on Skanska USA Civil, Inc. projects:

2. Daily / Pre-Shift Inspections

1. It is the responsibility of the PCC to ensure a documented pre-shift inspection is conducted by the crane operator. A Skanska crane inspection form or equivalent shall be utilized to document the inspection.
2. For Skanska owned or rented cranes, all deficiencies must be reported to the RCC immediately. Deficiencies that are related to safety will result in the immediate removal of the crane from service until the deficiencies are corrected. Non-safety related deficiencies will be repaired as soon as deemed practical. A copy of the completed daily inspection form should be left in the cab of the crane or filed and made available at the jobsite.

3. Monthly Inspections

1. Monthly inspections must be conducted by a qualified inspector or an approved third-party inspection company.
2. Inspections for Skanska owned or rented cranes are to be scheduled by the RCC, who is responsible for keeping a current database of cranes on all projects and identifying when inspections are required and completed.
3. Any deficiencies identified during the inspection must be communicated to the PCC, who is required to provide documentation describing the deficiency as well as the corrective action taken to remedy it.
4. All deficiencies found must be reported to the RCC immediately.
5. Deficiencies that are safety related will result in the immediate removal of the crane from service until the deficiencies are corrected.
6. Non-safety related deficiencies will be repaired as soon as deemed practical.
7. A copy of the completed inspection form should be left in the cab of the crane or at the job site.

4. Annual Inspections / Nondestructive Testing

1. All cranes must have a current annual inspection conducted by a certified third-party crane inspection company or by a qualified Skanska inspector. Lattice boom cranes and hydraulic cranes that are erected onsite shall be inspected upon completion of the erection of the crane by a certified third-party crane inspection company or by a qualified Skanska inspector. Annual inspections and post erection inspections will be coordinated by the RCC or the crane user.
2. A nondestructive test, such as magnetic particle, ultrasound, x-ray or other means necessary to establish the structural integrity of boom and members, may be required at the discretion of the RCC and/or the certified third party inspector. Discretion on the need and requirement for Non-Destructive Testing of welds, etc. will be based on: the overall condition of the crane, age of the crane, local or State requirements and the consultation with the certified third-party inspector.
3. On lattice boom cranes, when intending to increase the boom length, the section of boom to be installed must be inspected by a certified third party to determine if nondestructive testing may be required at the discretion of the RCC and/or the certified third party inspector. Discretion on the need and requirement for Non-Destructive Testing of welds, etc. will be based on: the overall condition of the crane, age of the crane, local or State requirements and the consultation with the certified third-party inspector.
4. Deficiencies identified during the inspection must be communicated to the PCC, who is required to provide documentation describing the deficiency as well as the corrective action taken to remedy it. All deficiencies found must be reported to the RCC immediately. Deficiencies that are safety related will result in the immediate removal of the crane from service until the deficiencies are corrected. Non-safety related deficiencies will be repaired as soon as deemed practical.
5. When crane operations or the crane environment increase the "wear and tear" on the crane (e.g., pile driving, pulling sheets, barge-mounted mobile cranes), additional or more frequent inspections may be required as determined by the RCC in conjunction with the project team.
6. If any unusual incident or accident occurs on a project involving a crane which may affect the strength, stability or may potentially have damaged loadbearing components, the crane will be removed from service until the satisfactory completion of an inspection by a qualified Skanska inspector or a third-party inspection company.

5. Modified Equipment Inspection

No modifications will be made to a crane without the manufacturer's approval or written approval from a RPE.

6. Repaired / Adjusted Equipment

Equipment that has had a repair or an adjustment that relates to safe operation (e.g., a repair or adjustment to a safety device or operator aid, or to a critical part of a control system, power plant, braking system, load-sustaining structural components, load hook, or in-use operating mechanism) must be inspected by a qualified person after such a repair or adjustment has been completed, prior to initial use.

The inspection must meet all of the following requirements:

1. The qualified person must determine if the repair / adjustment meets manufacturer equipment criteria (where applicable and available).
2. Where manufacturer equipment criteria are unavailable or not applicable, the qualified person must:
 1. Include functional testing of the repaired / adjusted parts and other components that may be affected by the repair / adjustment.
 2. Determine if a RPE is needed to develop criteria for the repair / adjustment. If an RPE is not needed, criteria will be developed by the qualified person.
 3. Determine if the repair / adjustment meets the criteria developed in accordance with OSHA 1926.1412 (b).
3. The inspection must include functional testing of the repaired / adjusted parts and other components that may be affected by the repair / adjustment.

7. Post-Assembly Inspection

Upon completion of assembly, the equipment must be inspected by a certified third-party crane inspection company or by a qualified Skanska inspector to ensure that it is configured in accordance with manufacturer equipment criteria. Where manufacturer equipment criteria are unavailable, an inspector must determine if an RPE familiar with the type of equipment involved is needed to develop criteria for the equipment configuration. If an RPE is not needed, Skanska must ensure that the criteria are developed by the qualified person. If an RPE is needed, Skanska must ensure that they are developed by an RPE.

Equipment must not be used until an inspection and function test are complete and the equipment is configured in accordance with the applicable criteria.

8. Equipment Modifications Modifications or additions that affect the capacity or safe operation of the equipment

are prohibited, except when the manufacturer approves the modification in writing. Upon completion of the modification, the load charts, instructions manuals / plates / tags / decals will be updated to reflect the modifications.

9. Manufacturer Refusal to Review Request

If the manufacturer is provided a detailed description of the proposed modification and is asked to approve the modification but declines to review the technical merits of the proposal or fails to acknowledge the requestor within 30 days of the review, then an RPE who is a qualified person with respect to the equipment involved must approve the modification and specify the equipment configurations to which that approval applies and modify the load charts, procedures, instruction manuals and instruction plates / tags / decals as necessary to align with the modification without reducing the original safety factor of the equipment.

10. Unavailable Manufacturer

Modifications or additions that affect the capacity or safe operation of the equipment are prohibited where the manufacturer, after a review of the technical safety merits of the proposed modification, rejects the proposal and explains the reasons for the rejection in a written response. If the manufacturer rejects the proposal but does not explain the reasons for the rejection in writing, the employer may treat this as a manufacturer refusal to review the request under the Maintenance and Inspection – Inspection Requirements section of this policy.

11. Severe Service

1. Where the severity of use / conditions is such that there is a reasonable probability of damage or excessive wear (e.g., loading that may have exceeded rated capacity, shock loading that may have exceeded rated capacity, prolonged exposure to a corrosive atmosphere), the crane shall be removed from service and inspected by a by a certified third-party crane inspection company or by a qualified Skanska inspector for structural damage to determine if the equipment can continue to be used safely.
2. If a deficiency is found and it is deemed unsafe, the crane shall be removed from service until the deficiency is repaired and re-inspected by a Skanska qualified person or a certified third-party inspection company

12. Equipment not in Regular Use

Prior to use, cranes that have been idle for three months or more will receive a monthly inspection by a certified third-party crane inspection company or by a qualified Skanska inspector.

4. Tagout

1. Tagging Out of Service Equipment / Functions

Cranes that have been taken out of service will be receive a tag in the cab in a conspicuous location stating the specific function that is out of service and if necessary, that the crane is out of service and is not to be used.

2. Response to “Do Not Operate” / Tagout Signs

If there is a warning (tag-out or maintenance / do not operate) sign on the equipment or starting control, the operator will not activate the switch or start the equipment until the sign has been removed by a person authorized to remove it.

3. Maintenance and Repair Employees

Maintenance, inspection and repair personnel without NCCCO Operators certification, or equivalent, are permitted to operate the equipment only where the following requirements are met:

1. The operation is limited to those functions necessary to perform maintenance, inspect or verify the performance of the equipment
2. The personnel are familiar with the operation, safe limitations, characteristics and hazards associated with the type of equipment
3. Maintenance and repair personnel meet the definition of a qualified person with respect to the equipment and maintenance / repair tasks performed

5. Wire Rope Inspection

1. Shift inspection

A visual inspection of all wire ropes (running and standing) that are likely to be used during the shift shall take by a competent person prior the equipment being used. Untwisting (opening) of wire rope or booming down is not required as part of this inspection. Observed deficiencies shall be categorized as the following:

1. Apparent Deficiencies

Category I

Apparent deficiencies in this category include significant corrosion, electric arc damage (from a source other than power lines) or heat damage, improperly applied end connections or significantly corroded, cracked, bent or worn end connections (such as from severe service).

Category II

Apparent deficiencies in this category are visible, broken wires, as follows:

1. In running wire ropes: Six randomly distributed broken wires in one rope lay or three broken wires in one strand in one rope lay, where a rope lay is the length along the rope in which one strand makes a complete revolution around the rope
2. In rotation resistant ropes: Two randomly distributed broken wires in six rope diameters or four randomly distributed broken wires in 30 rope diameters
3. In pendants or standing wire ropes: More than two broken wires in one rope lay located in rope beyond end connections and/or more than one broken wire in a rope lay located at an end connection
4. A diameter reduction of more than five percent from nominal diameter.

Category III

Apparent deficiencies in this category include rotation-resistant wire rope core protrusion or any other distortion indicating core failure, and prior electrical contact with a power line.

2. A Broken Strand

1. Critical Review Items

The competent person must give particular attention to all of the following:

1. Rotation-resistant wire rope in use
2. Wire rope being used for boom hoists and luffing hoists, particularly at reverse bends
3. Wire rope at flange points, crossover points and repetitive lift-up points on drums
4. Wire rope at or near terminal ends
5. Wire rope in contact with saddles, equalizer sheaves or other sheaves where rope travel is limited

3. Removal from Service

1. If a deficiency in Category I is identified, an immediate determination must be made by the competent person as to whether the deficiency constitutes a safety hazard. If the deficiency is determined to constitute a safety hazard, operations involving use of the wire rope in question must be prohibited until the wire rope is replaced.

If the deficiency is localized, the problem is corrected by severing the wire rope in two; the undamaged portion may continue to be used. Joining lengths of wire rope by splicing is prohibited. If a rope is shortened, the competent person must ensure that the drum will still have two wraps of wire when the load and/or boom are in its lowest position.

2. If a deficiency in Category II is identified, operations involving use of the wire rope in question must be prohibited until it complies with the wire rope manufacturer's established criterion for removal from service or a different criterion that the wire rope manufacturer has approved in writing for that specific wire rope, or until the wire rope is replaced.

If the deficiency is localized, the problem is corrected by severing the wire rope in two; the undamaged portion may continue to be used. Joining lengths of wire rope by splicing is prohibited. If a rope is shortened, the competent person must ensure that the drum will still have two wraps of wire when the load and/or boom are in its lowest position.

3. Significant distortion of the wire rope structure such as kinking, crushing, un-stranding, bird caging, signs of core failure or steel core protrusion between the outer strands is grounds for removal from service.
4. If a deficiency in Category III is identified, operations involving use of the wire rope in question must be prohibited until the wire rope is replaced.

If the deficiency (other than power line contact) is localized and the problem is corrected by severing the wire rope in two, the undamaged portion may continue to be used. Joining lengths of wire rope by splicing is prohibited. Repair of wire rope that contacted an energized power line is also prohibited. If a rope is shortened, the competent person must ensure that the drum will still have two wraps of wire when the load and/or boom are in its lowest position.

Where a wire rope is required to be removed from service per this section, either the equipment (as a whole) or the hoist with that wire rope must be tagged-out, until the wire rope is repaired or replaced.

4. Monthly Inspection

Each month an inspection must be conducted in accordance with the Maintenance and Inspection – Wire Rope Inspection section of this policy. The inspection must include any deficiencies that the inspector who conducted the annual inspection determines under the Maintenance and Inspection – Wire Rope Inspection section must be monitored.

1. Wire ropes on equipment must not be used until an inspection demonstrates that no corrective action under the Maintenance and Inspection – Wire Rope Inspection section is required
2. The inspection must be documented

5. Annual / Comprehensive Inspection

1. At least every 12 months, wire ropes in use on equipment must be inspected by a certified third-party crane inspection company or by a qualified Skanska inspector as defined in this policy. The inspection must identify deficiencies of the types listed below. The inspection must be complete and thorough, covering the surface of the entire length of the wire ropes, with particular attention given to all of the following:
 1. Critical review items
 2. Those sections that are normally hidden during shift and monthly inspections
 3. Wire rope subject to reverse bends
 4. Wire rope passing over sheaves
2. Exception: In the event an inspection is not feasible due to existing set-up and configuration of the equipment (such as where an assist crane is needed) or due to site conditions (such as a dense urban setting), such inspections must be conducted as soon as it becomes feasible but no longer than an additional 6 months for running ropes and for standing ropes at the time of disassembly.
3. If a deficiency is identified, an immediate determination must be made by the certified third-party crane inspection company or by a qualified Skanska inspector as to whether the deficiency constitutes a safety hazard. If the deficiency is determined to constitute a safety hazard, operations involving use of the wire rope in question must be prohibited until the wire rope is replaced. If the deficiency is localized, the problem is corrected by severing the wire rope in two; the undamaged portion may continue to be used. Joining lengths of wire rope by splicing is prohibited. If a rope is shortened, Skanska must ensure that the drum will still have two wraps of wire when the load and/or boom are in its lowest position. If the qualified person determines that, though not presently a safety hazard, the deficiency needs to be monitored, the employer must ensure that the deficiency is checked in the monthly inspections. The inspection must be documented.

6. Rope Lubricants

Lubricants that hinder inspection must not be used. All documents produced under this section must be available, during the applicable document retention period, to all persons who conduct inspections under this section.

7. Wire Rope Selection and Installation Criteria

Original equipment wire rope and replacement wire rope must be selected and installed in accordance with the requirements of this section. Selection of replacement wire rope must be in accordance with the recommendations of the wire rope manufacturer, the equipment manufacturer or a qualified person.

1. Wire Rope Design Criteria

Wire rope (other than rotation-resistant rope) must comply with either Option 1 or Option 2 of this section, as follows:

Option 1:

Wire rope must comply with section 5–1.7.1 of ASME B30.5– 2004 (incorporated by reference, see OSHA 1926.6) except that section's paragraph (c) must not apply.

Option 2:

Wire rope must be designed to have, in relation to the crane's / derrick's rated capacity, a sufficient minimum breaking force and design factor so that compliance with the applicable inspection provisions in OSHA 1926.1413 will be an effective means of preventing sudden rope failure

Wire rope must be compatible with the safe functioning of the equipment.

2. Boom Hoist Reeving

Fiber core ropes must not be used for boom hoist reeving, except for derricks.

Rotation-resistant ropes must be used for boom hoist reeving only where the requirements of this section are met.

8. Rotation-Resistant Ropes

Definitions

Type I rotation-resistant wire rope (Type I)

Type I rotation-resistant rope is stranded rope constructed to have little or no tendency to rotate or, if guided, transmits little or no torque. It has at least 15 outer strands and comprises an assembly of at least three layers of strands laid helically over a center in two operations. The direction of lay of the outer strands is opposite to that of the underlying layer.

Type II rotation-resistant wire rope (Type II)

Type II rotation-resistant rope is stranded rope constructed to have significant resistance to rotation. It has at least 10 outer strands and comprises an assembly of two or more layers of strands laid helically over a center in two or three operations. The direction of lay of the outer strands is opposite to that of the underlying layer.

Type III rotation resistant wire rope (Type III)

Type III rotation-resistant rope is stranded rope constructed to have limited resistance to rotation. It has no more than nine outer strands and comprises an assembly of two layers of strands laid helically over a center in two operations. The direction of lay of the outer strands is opposite to that of the underlying layer.

9. Requirements

1. Types II and III with an operating design factor of less than 5 must not be used for duty cycle or repetitive lifts.
2. Rotation-resistant ropes (including Types I, II and III) must have an operating design factor of no less than 3.5.
3. Type I must have an operating design factor of no less than 5, except where the wire rope manufacturer and the equipment manufacturer approves the design factor, in writing.
4. Types II and III must have an operating design factor of no less than 5, except where the requirements of paragraph OSHA 1926.1414(e)(3) are met.
5. When Types II and III with an operating design factor of less than 5 are used (for non-duty cycle, non-repetitive lifts), the following requirements must be met for each lifting operation:
 1. A qualified person must inspect the rope. The rope must be used only if the qualified person determines that there are no deficiencies constituting a hazard. In making this determination, more than one broken wire in any one rope lay must be considered a hazard.
 2. Operations must be conducted in such a manner and at such speeds as to minimize dynamic effects
 3. Each lift made under OSHA 1926.1414(e) (3) must be recorded in the monthly and annual inspection documents. Such prior uses must be considered by the qualified person in determining whether to use the rope again.

Additional requirements for rotation resistant ropes for boom hoist reeving:

4. Rotation-resistant ropes must not be used for boom hoist reeving, except where the requirements of this section are met
5. Rotation-resistant ropes may be used as boom hoist reeving when load hoists are used as boom hoists for attachments such as luffing attachments or boom and mast attachment systems. Under these conditions, all of the following requirements must be met:
 - a. The drum must provide a first layer rope pitch diameter of not less than 18 times the nominal diameter of the rope used.
 - b. The requirements in OSHA 1926.1426(a) (irrespective of the date of manufacture of the equipment) and OSHA 1926.1426(b) are met.
 - c. All sheaves used in the boom hoist reeving system must have a rope pitch diameter of not less than 18 times the nominal diameter of the rope used.
 - d. The operating design factor for the boom hoist reeving system must be not less than 5.
 - e. The operating design factor for these ropes must be the total minimum breaking force of all parts of rope in the system divided by the load imposed on the rope system when supporting the static weights of the structure and the load within the crane's / derrick's rated capacity.

- f. When provided, a power controlled lowering system must be capable of handling rated capacities and speeds as specified by the manufacturer.
- g. Wire rope clips used in conjunction with wedge sockets must be attached to the unloaded dead end of the rope only, except that the use of devices specifically designed for dead--ending rope in a wedge socket is permitted.
- h. Socketing must be done in the manner specified by the manufacturer of the wire rope or fitting.
- i. Prior to cutting a wire rope, seizing must be placed on each side of the point to be cut. The length and number of seizing must be in accordance with the wire rope manufacturer's instructions.

10. Maintenance and Inspection: Regional / Project-Specific Requirements

- None

6. Electrical

1. Power Line Safety – Assembly and Disassembly

1. Regarding assembly and/or disassembly, all Table A clearances apply.
2. Before beginning equipment A/D, Skanska / crane user must have a CWP identifying the electrical hazards associated with the work. Identify the work zone by either:
3. Demarcating boundaries (such as with flags, or a device such as a range limit device or range control warning device) and prohibiting the operator from operating the equipment past those boundaries
4. Defining the work zone as the area 360 degrees around the equipment, up to the equipment's maximum working radius
5. For power lines < 350kV, determine if any part of the equipment, load line or load (including rigging and lifting accessories), if operated up to the equipment's maximum working radius in the work zone, could get closer than 20 feet to a power line. If so, Skanska / crane user must meet the following requirements in Option 1, Option 2, or Option 3 of this section, as follows.
6. For power Lines > 350kV – Option 3 only.

Option 1:

Insure power is de-energized and grounded

Confirm from the utility owner / operator that the power line has been de-energized and visibly grounded at the jobsite.

Option 2:

Insure a 20-foot clearance.

Ensure that no part of the equipment, load line or load (including rigging and lifting accessories) gets closer than 20 feet to the power line by implementing the measures specified in paragraph 11.7.2.2, Titled Preventing encroachment / electrocution.

Option 3:

Insure a clearance which abides by Table A.

TABLE A—Minimum Clearance Distances

Note: The value that follows "to" is up to and includes that value. For example, "up to 200" means up to and including 200kV.

Voltage (nominal, kV, alternating current)		Minimum clearance distance (feet)
< 50	.....	10
Over 50 up to 200	.....	15
Over 200 to 350	.....	20

Voltage (nominal, kV, alternating current)		Minimum clearance distance (feet)
Over 350 to 500	.....	25
Over 500 to 750	.....	35
Over 750 to 1,000	.....	45
Over 1,000	.....	as established by the utility owner / operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution

7. Preventing Encroachment Electrocutation

Where encroachment precautions are required under Option (2) or Option (3) of this section, all of the following requirements must be met:

1. Conduct a planning meeting with the assembly / disassembly (A/D) director, operator, A/D crew and the other workers who will be in the A/D area to review the location of the power line(s) and the steps that will be implemented to prevent encroachment / electrocution
2. Tag lines must be non-conductive
3. At least one of the following additional measures must be in place. The measure selected from this list must be effective in preventing encroachment. The additional measures are:
 1. Use a dedicated spotter who is in continuous contact with the equipment operator. The dedicated spotter must:
 - a. Be equipped with a visual aid to assist in identifying the minimum clearance distance. Examples of a visual aid include, but are not limited to, clearly visible line painted on the ground, a clearly visible line of stanchions a set of clearly visible line-of-sight landmarks (e.g., a fence post behind the dedicated spotter and a building corner ahead of the dedicated spotter).
 - b. Be positioned to effectively gauge the clearance distance
 2. Where necessary, use equipment that enables the dedicated spotter to communicate directly with the operator
 3. Give timely information to the operator so that the required clearance distance can be maintained
 4. Use a proximity alarm that is set to give the operator sufficient warning to prevent encroachment.
 - a. A device that automatically warns the operator when to stop movement, such as a range control warning device. Such a device must be set to give the operator sufficient warning to prevent encroachment.
 - b. A device that automatically limits range of movement, set to prevent encroachment
 - c. An elevated warning line, barricade or line of signs in view of the operator, equipped with flags or similar high-visibility markings

8. Assembly / Disassembly below Power Lines Prohibited

During A/D, no part of a crane / derrick, load line or load (including rigging and lifting accessories), whether partially or fully assembled, is allowed below a power line unless the crane user has confirmed that the utility owner / operator has de-energized and (at the jobsite) visibly grounded the power line.

9. Assembly / Disassembly inside Table A Clearance Prohibited

During A/D, no part of a crane / derrick, load line or load (including rigging and lifting accessories), whether partially or fully assembled, is allowed closer than the minimum approach distance under Table A (see below) to a power line unless the employer has confirmed that the utility owner / operator has de-energized and (at the jobsite) visibly grounded the power line.

10. Voltage Information

Where Option 3, in the Electrical – Power Line Safety – Equipment Operations section is used, the utility owner / operator of the power lines must provide the requested voltage information within two working days of the employer's request.

11. Power Lines Presumed Energized

Skanska / crane user must assume that all power lines are energized unless the utility owner / operator confirms that the power line has been and continues to be de-energized and visibly grounded at the jobsite.

12. Posting of Electrocution Warnings

There must be at least one electrocution hazard warning conspicuously posted in the cab so that it is in view of the operator and, except for overhead gantry and tower cranes, at least two on the outside of the equipment.

2. Power Line Safety—Equipment Operations

1. Hazard Assessments and Precautions inside the Work Zone

- Before beginning equipment operations, Skanska / crane user must have a CWP identifying the electrical hazards associated with the work. Identify the work zone by either:
 - Demarcating boundaries (e.g., with flags or a device such as a range limit device or range control warning device) and prohibiting the operator from operating the equipment past those boundaries
 - Defining the work zone as the area 360 degrees around the equipment, up to the equipment's maximum working radius
- For power lines < 350kV: Determine if any part of the equipment, load line or load (including rigging and lifting accessories), if operated up to the equipment's maximum working radius in the work zone, could get closer than 20 feet to a power line. If so, Skanska / crane user must meet the following requirements in Option 1, Option 2 or Option 3 of this section, as follows.
- For power Lines > 350kV: Refer to Option 3 only.

Option 1:

Insure power is de-energized and grounded.

Confirm from the utility owner / operator that the power line has been de-energized and visibly grounded at the jobsite.

Option 2:

Insure a 20-foot clearance.

Ensure that no part of the equipment, load line or load (including rigging and lifting accessories) gets closer than 20 feet to the power line by implementing the measures specified in the Electrical – Power Line Safety – Equipment Operations section.

Option 3:

Insure a clearance which abides by Table A.

TABLE A—Minimum Clearance Distances

Note: The value that follows "to" is up to and includes that value. For example, "up to 200" means up to and including 200kV.

Voltage (nominal, kV, alternating current)		Minimum clearance distance (feet)
< 50	.....	10
Over 50 up to 200	.....	15
Over 200 to 350	.....	20
Over 350 to 500	.....	25
Over 500 to 750	.....	35
Over 750 to 1,000	.....	45
Over 1,000	.....	as established by the utility owner / operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution

- Determine if any part of the equipment, load line or load (including rigging and lifting accessories), while operating up to the equipment's maximum working radius in the work zone, could get closer than the minimum approach distance of the power line permitted under Table A. If so, then Skanska / crane user must follow the requirements for preventing encroachment / electrocution of this section to ensure that no

part of the equipment, load line, or load (including rigging and lifting accessories), approaches the overhead source.

Diagram A.1

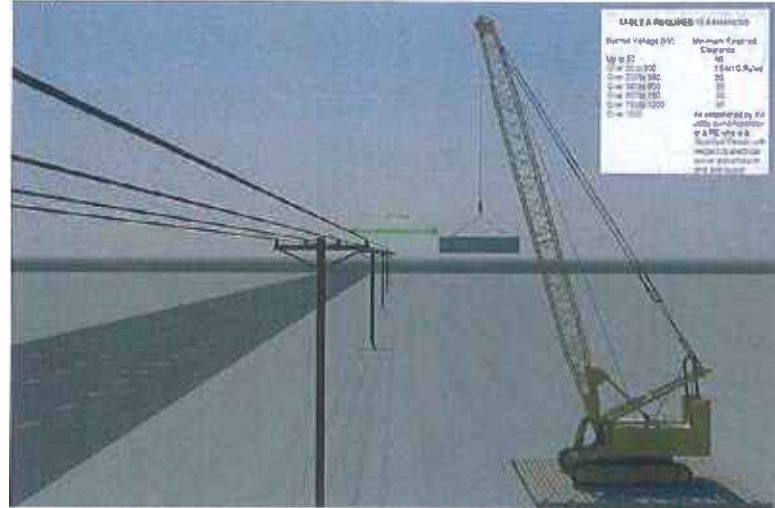


Diagram A.2

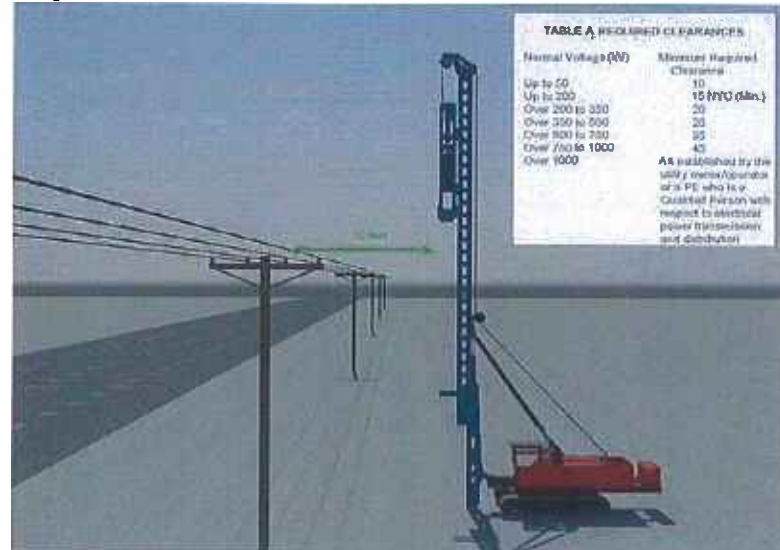


Diagram A.3

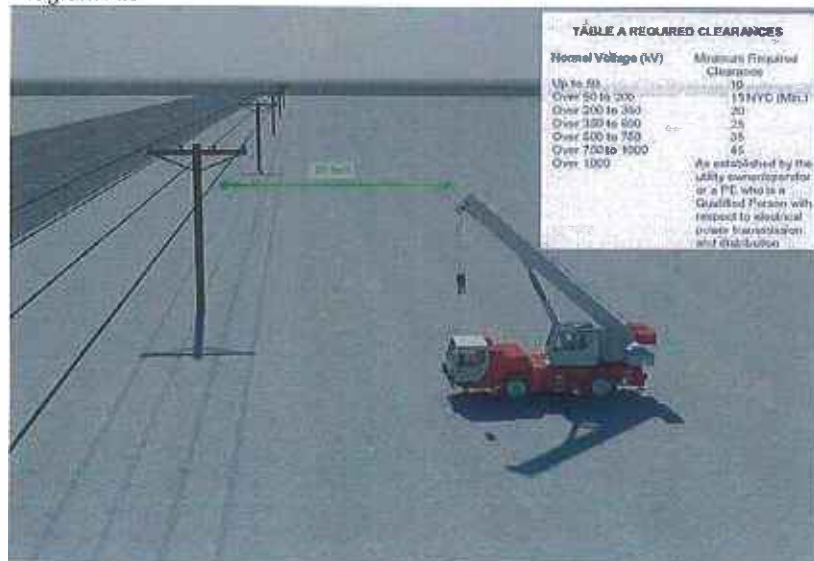


Diagram A.1-A.3 are examples of Table A – Minimum clearance while operating

2. Preventing Encroachment / Electrocuting Equipment Operations

Here encroachment precautions are required under Option 2 or Option 3 of this section, all of the following requirements must be met:

1. Conduct a planning meeting reviewing the CWP with the operator and the other workers who will be in the area of the equipment or load to review the location of the power line(s) and the steps that will be implemented to prevent encroachment / electrocution
2. Tag lines must be non-conductive
3. Erect and maintain an elevated warning line, barricade or line of signs, in view of the operator, equipped with flags or similar high-visibility markings at 20' from the power line (if using Option 2 of this section) or at the minimum approach distance under Table A, above (if using Option 3 of this section).
4. Implement at least one the following measures:
 1. A proximity alarm, set to give the operator sufficient warning to prevent encroachment
 2. A dedicated spotter who is in continuous contact with the operator. Where this measure is selected, the dedicated spotter must:
 - a. Be equipped with a visual aid to assist in identifying the minimum clearance distance. Examples of a visual aid include, but are not limited to, a clearly visible line painted on the ground, a clearly visible line of stanchions or a set of clearly visible line-of-sight landmarks (e.g., a fence post behind the dedicated spotter and a building corner ahead of the dedicated spotter).
 - b. Be positioned to effectively gauge the clearance distance. Where necessary, use equipment that enables the dedicated spotter to communicate directly with the operator. Give timely information to the operator so that the required clearance distance can be maintained.
5. A device that automatically warns the operator when to stop movement, such as a range control warning device. Such a device must be set to give the operator sufficient warning to prevent encroachment.
6. A device that automatically limits range of movement, set to prevent encroachment.
7. An insulating link / device installed at a point between the end of the load line (or below) and the load.

3. Voltage Information

Where Option 3 of this section is used, the utility owner / operator of the power lines must provide the requested voltage information within two working days of the employer's request.

4. Operations below Power Lines

No part of the equipment, load line or load (including rigging and lifting accessories) is allowed below a power line; unless the crane user has confirmed that the utility owner / operator has de-energized and (at the jobsite) visibly grounded the power line.

Exceptions:

1. For equipment with non-extensible booms: The uppermost part of the equipment, with the boom at true vertical, would be more than 25' below the plane of the power line and more than the minimum clearance distance below the plane of the power line, as established in Table A.
2. For equipment with articulating or extensible booms: The uppermost part of the equipment, with the boom in the fully extended position, at true vertical, would be more than 25' below the plane of the power line or more than the minimum clearance distance below the plane of the power line, as established in Table A of this section.

5. Power Lines Presumed Energized

1. Skanska / crane user must assume that all power lines are energized unless the utility owner / operator confirms that the power line has been and continues to be de-energized and visibly grounded at the jobsite.
2. When working near transmitter / communication towers where the equipment is close enough for an electrical charge to be introduced to the equipment or materials being handled, the transmitter must be de-energized or the following precautions must be taken:
 1. The equipment must be provided with an electrical ground
 2. Tag lines must be non-conductive

6. Training

To be prepared in the event of electrical contact with a power line, Skanska / crane user must ensure each operator and crew member assigned to work with the equipment are trained on all of the following:

1. Information regarding the danger of electrocution from the operator simultaneously touching the equipment and the ground

2. The importance to the operator's safety of remaining inside the cab except where there is an imminent danger of fire, explosion or other emergency that necessitates leaving the cab
3. The safest means of evacuating from equipment that may be energized
4. The danger of the potentially energized zone around the equipment (step potential)
5. The need for crew in the area to avoid approaching or touching the equipment and the load
6. Safe clearance distance from power lines
7. The limitations of an insulating link / device, proximity alarm and range control (and similar) device, if used
8. The procedures to be followed to properly ground equipment and the limitations of grounding
9. Power lines are presumed to be energized unless the utility owner / operator confirms that the power line has been and continue to be de-energized and visibly grounded at the jobsite.
10. Power lines are presumed to be uninsulated unless the utility owner / operator or a registered engineer who is a qualified person with respect to electrical power transmission and distribution confirms that a line is insulated.
11. Employees working as dedicated spotters must be trained to effectively perform their task, including training on the applicable requirements of this section. Devices originally designed by the manufacturer for use as a safety device, operational aid or a means to prevent power line contact or electrocution when used to comply with this section, must meet the manufacturer's procedures for use and conditions of use.
12. The crane user must determine that it is not feasible to do the work without breaching the minimum approach distance under Table A
13. The crane user may determine that, after consultation with the utility owner / operator, it is infeasible to de-energize and ground the power line or relocate the power line.

7. Power Line with Unknown Voltage

Refer to Option 1 in the Electrical – Power Line Safety – Equipment Operations section

8. Power Line Safety (All Voltages)—Equipment Operations Closer than the "Table A" Zone

Equipment operations in which any part of the equipment, load line or load (including rigging and lifting accessories) is closer than the minimum approach distance under Table A to an energized power line is prohibited, except where the crane user demonstrates that the following requirements are met:

1. Hazards are identified in the CWP
2. Minimum clearance distance is identified
3. The power line owner / operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution determines the minimum clearance distance that must be maintained to prevent electrical contact in light of the onsite conditions. The factors that must be considered in making this determination include, but are not limited to, conditions affecting atmospheric conductivity, time necessary to bring the equipment, load line and load (including rigging and lifting accessories) to a complete stop, wind conditions, degree of sway in the power line lighting conditions and other conditions affecting the ability to prevent electrical contact.
4. A planning meeting with the employer and utility owner / operator (or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution) is held to determine the procedures that will be followed to prevent electrical contact and electrocution. At a minimum these procedures must include:
 1. If the power line is equipped with a device that automatically reenergizes the circuit in the event of a power line contact, the automatic reclosing feature of the circuit interrupting device must be made inoperative if the design of the device permits before the work begins
 2. The dedicated spotter must be equipped with a visual aid to assist in identifying the minimum clearance distance. Examples of a visual aid include, but are not limited to, a line painted on the ground; a clearly visible line of stanchions; a set of clearly visible line-of-sight landmarks (such as a fence post behind the dedicated spotter and a building corner ahead of the dedicated spotter) positioned to effectively gauge the clearance distance. Where necessary, use equipment that enables the dedicated spotter to communicate directly with the operator. Give timely information to the operator so that the required clearance distance can be maintained.
 3. An elevated warning line or barricade (not attached to the crane) is in view of the operator (either directly or through video equipment) equipped with flags or similar high-visibility markings to prevent electrical contact
 4. An insulating link / device is installed at a point between the end of the load line (or below) and the load
 5. All employees, excluding equipment operators located on the equipment, who may come in contact with the equipment, the load line, or the load are insulated or guarded from the equipment, the load line, and the load through an additional means other than an insulating link device. Insulating gloves rated for the voltage involved are adequate additional means of protection for the purposes of this

paragraph.

6. Nonconductive rigging is used if the rigging is within the Table A distance during the operation
7. The equipment is equipped with a device that automatically limits range of movement and that is set to prevent any part of the equipment, load line or load (including rigging and lifting accessories) from breaching the minimum approach distance established in Table A
8. Tag lines are of the nonconductive type
9. Barricades forming a perimeter at least 10' away from the equipment are used to prevent unauthorized personnel from entering the work area. In areas where obstacles prevent the barricade from being at least 10' away, the barricade must be as far from the equipment as feasible.
10. Workers other than the operator are prohibited from touching the load line above the insulating link / device and crane. Operators remotely operating the equipment from the ground must use either wireless controls that isolate the operator from the equipment or insulating mats that insulate the operator from the ground.
11. Only personnel essential to the operation are permitted to be in the area of the crane and load
12. The equipment is properly grounded
13. Insulating line hose or cover-up is installed by the utility owner / operator except where such devices are unavailable for the line voltages involved
14. The procedures developed comply with this section and are documented and immediately available onsite
15. The equipment user and utility owner / operator (or RPE) meets with the equipment operator and the other workers who will be in the area of the equipment or load to review the procedures that will be implemented to prevent breaching the minimum approach distance established in Table A of this section and prevent electrocution.
16. The procedures developed to comply with this section are implemented
17. The utility owner / operator (or RPE) and all employers of employees involved in the work identify one person who will direct the implementation of the procedures. The person identified in accordance with this paragraph must direct the implementation of the procedures and must have the authority to stop work at any time to ensure safety.
18. If a problem occurs implementing these procedures or indicating that those procedures are inadequate to prevent electrocution, the employer must safely stop operations and either develop new procedures to comply with this section or have the utility owner / operator de-energize and visibly ground or relocate the power line before resuming work
19. Devices originally designed by the manufacturer for use as a safety device operational aid or a means to prevent power line contact or electrocution, when used to comply with this section, must comply with the manufacturer's procedures for use and conditions of use

9. Safety while Traveling Under or Near Power Lines with No Load

The crane user shall ensure that:

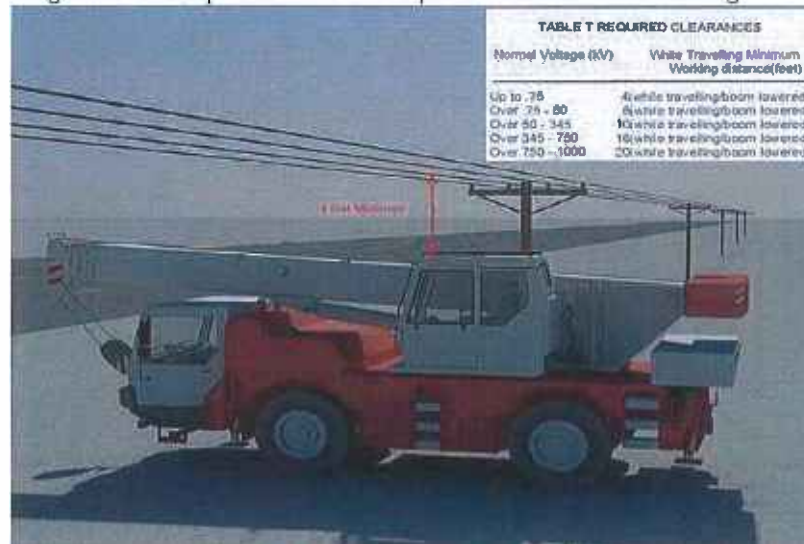
1. The power lines are identified on the crane location plan.
2. The boom / mast and boom / mast support system are lowered sufficiently to meet the requirements of this paragraph.
3. The clearances specified in Table T (see below) of this section are maintained.
4. The effects of speed and terrain on equipment movement (including movement of the boom / mast) are considered so that those effects do not cause the minimum clearance distances specified in Diagram B of this section to be breached.
5. There is a dedicated spotter. If any part of the equipment while traveling will get closer than 15' to the power line, must ensure that a dedicated spotter who is in continuous contact with the driver / operator is used. The dedicated spotter must be positioned to effectively gauge the clearance distance. Where necessary, use equipment that enables the dedicated spotter to communicate directly with the operator. Give timely information to the operator so that the required clearance distance can be maintained.
6. Additional precautions for traveling in poor visibility:
7. When traveling at night or in conditions of poor visibility, in addition to the measures previously specified in this section, the crane user will ensure that the power lines are illuminated or another means of identifying the location of the lines is used and a safe path of travel is identified and used

Table T —Minimum Clearance Distances While Traveling with No Load

Voltage (nominal, kV, alternating current) while traveling	Minimum clearance distance (feet)
---	--------------------------------------

Voltage (nominal, kV, alternating current) while traveling		Minimum clearance distance (feet)
up to 0.75	.....	4
over .75 to 50	.....	6
over 50 to 345	.....	10
over 345 to 750	.....	16
Over 750 to 1,000	.....	20
Over 1,000	.....	as established by the utility owner / operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution

Diagram B – Examples of Table T – Required clearances while traveling



10. Unavailable Operation Procedures

Where the manufacturer's procedures are unavailable, the crane user will ensure compliance with all procedures necessary for the safe operation of the equipment and attachments. Procedures for the operational controls must be developed by a qualified person.

11. Accessibility of Procedures

The procedures applicable to the operation of the equipment, including rated capacities (load charts), recommended operating speeds, special hazard warnings, instructions and operator's manual will be readily available in the cab at all times for use by the operator. Where rated capacities are available in the cab only in electronic form and in the event of a failure that makes the rated capacities inaccessible, the operator must immediately cease operations or follow safe shut-down procedures until the rated capacities (in electronic or other form) are available.

3. Electrical: Regional / Project-Specific Requirements

- None

7. Weather

1. The project team shall develop a means to continually monitor weather conditions (e.g. NOAA, web based weather alerts, lightning strike app, local radar, etc.). It will be at the discretion of the project team and crane operator to implement manufactures recommendations for securing the equipment.

Wind

The manufacture's requirements regarding the effects of wind speed shall be identified and adhered to. Cranes that are not equipped with an anemometer shall have a means (e.g. handheld device, etc.) to identify local wind speeds that could potentially have an adverse effect on the crane operations. Objects with large surface areas, such as formwork, may require a lower threshold in order to be safely lifted.

2. Lightning

The use of a crane during a lightning event will be at the discretion of the project team. A means to track lightning strikes and alert workers shall be implemented.

3. Winter Months

Prior to crane operations during the winter months, the boom and head sheaves shall be inspected for the presence of ice. If possible, the boom shall be lowered for the inspection. The CWP shall address the hazard of the potential of falling ice from the crane. Personnel working with the crane shall stand in front of the crane beyond the hook or headache ball. Barge cranes have a higher likelihood of ice buildup.

4. Weather: Regional / Project-Specific Requirements

- None

8. Training Requirements

1. Signal Training—General Requirements

1. Personnel with the responsibility of signaling a crane will possess a certificate from a nationally recognized accredited organization / trainer or have passed Skanska's or subcontractor's hand signal training course.
2. Qualified signal persons shall display visual marking on their hardhat. It is recommended that the signal person dons a unique visual identifier (e.g. green hardhat, vest and gloves).
3. During operations requiring signals, the ability to transmit signals between the operator and designated signal person will be maintained. If that ability is interrupted at any time, the operator will safely stop operations requiring signals until the signal is reestablished and a proper signal is given and understood.
4. If the operator becomes aware of a safety problem and needs to communicate with the signal person, the operator must safely stop operations. Operations will not resume until the operator and signal person agree that the problem has been resolved.
5. Only one person gives signals to a crane / derrick at a time, except in circumstances where the operator cannot see the assigned signal person. In this case, a second signal person can relay signals to the operator from the signal person who is out of view. The CWP must be amended at this time.
6. Anyone who becomes aware of a safety problem must alert the operator or signal person by giving the stop or emergency stop signal. All directions given to the operator by the signal person will be given from the operator's direction perspective.
7. A designated signal person must be provided for any working or traveling crane on site.
8. Signals to operators must be by hand or dedicated two-way communication. When using hand signals, the standard method must be used.

Exception: where use of the standard method for hand signals is infeasible, or where an operation or use of an attachment is not covered in the standard method, non-standard hand signals may be used.

9. Non-Standard Hand Signals

When using non-standard hand signals, the signal person, operator and lift supervisor (where there is one) will contact each other prior to the operation and agree on the non-standard hand signals that will be used.

10. New Signals

1. Signals other than hand, voice or audible signals may be used where the employer on any project, demonstrates that:
 1. The new signals provide communication at least equally effective as voice, audible or standard

method hand signals, and are suitable.

2. The signals used (e.g., hand, voice, audible or new) and means of transmitting the signals to the operator (e.g., direct line of sight, video, radio, etc.) must be appropriate for the site conditions.
2. Prior to crane operations, the operator, designated signal person and when applicable, the lift supervisor shall agree upon the voice signals that will be used. If any personnel are changed, or if there is confusion regarding the voice signals, operations shall cease and a meeting shall be held to clarify the voice signals.
3. Each voice signal must contain the following three elements, given in the following order: function (such as hoist, boom, etc.), direction; distance and/or speed; function, stop command.
4. The operator, signal person and lift supervisor, if there is one, must be able to effectively communicate in the language used.
5. When using any electronic device for voice / audible signals, back-up batteries must be with the signal person prior to operation. A proactive plan for device failure must be discussed and documented.

11. Communication with Multiple Cranes / Derricks

Where a signal person(s) is in communication with more than one crane / derrick, a system for identifying which crane / derrick each signal is for must be established.

12. Radio or Other Electronic Transmission of Signals





The device(s) used to transmit signals will be tested onsite before beginning operations to ensure that the signal transmission is clear and reliable. Signals must be transmitted through a dedicated channel.










Exception: Multiple cranes / derricks and one or more signal persons may share a dedicated channel for the purpose of coordinating operations. The operator's reception of signals must be by a hands-free system


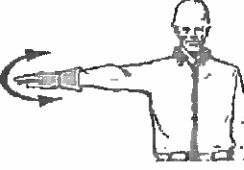

13. Signals

Hand signal charts must be both posted on the equipment and readily available at the site.

Upon completion of the hand signal training course or if the signalman possesses a nationally recognized certificate from an accredited organization, each individual will be issued the appropriate project-specific signalman visual identifier. See images below.

Corresponding Hand Signal	Function	Initiate Voice Function	Terminate Function
	HOIST	"Hoist" "Hoist up" "Hoist load" "Hoist hook"	"Hoist stop"
	LOWER	"Lower" "Lower down" "Lower load" "Lower hook"	"Lower stop"
	BOOM UP	"Boom up"	"Boom stop"
	BOOM DOWN	"Boom down"	"Boom stop"

	TELESCOPE OUT (Mobile Telescopic Boom Cranes ONLY)	"Telescope out"	"Telescope stop"
	TELESCOPE IN (Mobile Telescopic Boom Cranes ONLY)	"Telescope in"	"Telescope stop"
	TROLLEY TRAVEL (Tower Cranes ONLY)	"Trolley in" "Trolley out"	"Trolley stop"
	SWING	"Swing right" "Swing left"	"Swing stop"
	TRAVEL	"Travel forward" "Travel reverse"	"Travel stop"
	DOG EVERYTHING	"Dog everything"	N/A
	USE MAIN HOIST (Mobile Crane ONLY)	"Use main hoist" "Use main drum"	N/A
	USE WHIPLINE (AUXILIARY HOIST) (Mobile Crane ONLY)	"Use whipline" "Use auxiliary hoist" "Use auxiliary drum"	N/A
	BOOM DOWN AND RAISE THE LOAD	NO VOICE COMMAND	N/A

	BOOM UP AND LOWER THE LOAD	NO VOICE COMMAND	N/A
	STOP	Function STOP	N/A
	EMERGENCY STOP	"Emergency Stop"	N/A

2. Electrical Training

General Requirements

Each crew member working with a crane must have completed the electrical training defined in the Electrical – Power Line Safety – Equipment Operations section.

3. Dedicated Spotter

General Requirements

A person working as a dedicated spotter around electrical hazards must be trained to fit the definition of signal person.

4. Rigging Training

1. Personnel with the responsibility of rigging will possess a certificate from a nationally recognized accredited organization / trainer or have passed Skanska's or subcontractor's rigging training course.
2. Qualified riggers shall display visual marking on their hardhat. It is recommended that the signal person dons a unique visual identifier (e.g. green hardhat, vest and gloves).
3. At a minimum, a qualified rigger shall:
 1. Possess a recognized degree, certificate, or professional standing, or has extensive knowledge, training, and experience, and can successfully demonstrate the ability to solve problems related to rigging loads.
 2. Know the weight of the load
 3. Know how to select the appropriate rigging for the load
 4. Know the differences between hitching configurations
 5. Know how to inspect rigging
 6. Understand the concept of center of gravity and balancing of the load {repl:Cranes:AdditionalRigger:

9. Unconventional Cranes

1. Tower Cranes

This section contains supplemental requirements for tower cranes. All sections apply to tower cranes unless specified otherwise.

1. Erecting, Climbing and Dismantling

The following sections apply to tower cranes (except as otherwise noted), except that the term assembly / disassembly (A/D) is replaced by "erecting, climbing and dismantling," and the term "disassembly" is replaced by "dismantling":

Assembly / Disassembly

Selection of manufacturer or employer procedures

Assembly / Disassembly

General requirements (applies to all assembly and disassembly operations)

Disassembly

Additional requirements for dismantling of booms and jibs (applies to both the use of manufacturer procedures and employer procedures)

2. Dangerous Areas (Self-Erecting Tower Cranes)

In addition to the requirements for self-erecting tower cranes, the following applies:

1. Employees will not be in or under the tower, jib or rotating portion of the crane during erecting, climbing and dismantling operations until the crane is secured in a locked position and the competent person in charge indicates it is safe to enter this area, unless the manufacturer's instructions direct otherwise and only the necessary personnel are permitted in this area
2. In some jurisdictions, a master rigger and proper notification to local governing agencies are required. This is the responsibility of the project team.

3. Foundations and Structural Supports

Tower crane foundations and structural supports will be designed by the manufacturer or a RPE.

4. Addressing Specific Hazards

In addition to assembly / disassembly requirements, the A/D supervisor will address the following:

1. Foundations and structural supports: The A/D supervisor will verify that the tower crane foundations and structural supports are installed in accordance with their design.
2. Loss of backward stability: Backward stability must be considered before swinging self-erecting cranes or cranes on traveling or static undercarriages.
3. Wind speed: Wind must not exceed the speed recommended by the manufacturer or where the manufacturer does not specify this information, the speed determined by a qualified person.

5. Plumb Tolerance

Towers will be erected plumb to the manufacturer's tolerance and verified by a qualified person. Where the manufacturer does not specify plumb tolerance, the crane tower will be plumb to a tolerance of at least 1:500 (approximately 1" in 40').

6. Multiple Tower Crane Jobsites

On jobsites where more than one fixed jib (hammerhead) tower crane is installed, the cranes will be located so no crane will come in contact with the structure of another crane. Cranes are permitted to pass over one another.

7. Climbing Procedures

Prior to, and during, all climbing procedures (including inside climbing and top climbing), the employer will:

1. Comply with all manufacturer prohibitions
2. Have an RPE verify that the host structure is strong enough to sustain the forces imposed through the braces
3. Brace anchorages and supporting floors
4. Ensure that no part of the climbing procedure takes place when wind exceeds the speed recommended by the manufacturer or, where the manufacturer does not specify this information, the speed determined by a qualified person. Some local governing agencies require 48-hour notifications.

8. Counterweight / Ballast

Equipment will not be erected, dismantled or operated without the amount and position of counterweight and/or ballast in place as specified by the manufacturer or an RPE familiar with the equipment. The maximum counterweight and/or ballast specified by the manufacturer or an RPE familiar with the equipment will not be exceeded.

9. Signs

The size and location of signs installed on tower cranes must be in accordance with manufacturer specifications. Where these are unavailable, an RPE familiar with the type of equipment involved must approve in writing the size and location of any signs.

10. Safety Devices

The following safety devices are required on all tower cranes unless otherwise specified:

1. Boom stops on luffing boom type tower cranes
2. Jib stops on luffing boom type tower cranes if equipped with a jib attachment
3. Travel rail end stops at both ends of travel rail
4. Travel rail clamps on all travel bogies
5. Integrally mounted check valves on all load-supporting hydraulic cylinders
6. Hydraulic system pressure limiting device
7. The following brakes, which automatically set in the event of pressure loss or power failure:
 1. A hoist brake on all hoists
 2. Swing brake
 3. Trolley brake
 4. Rail travel brake
8. Dead man control or forced neutral return control (hand) levers
9. Emergency stop switch at the operator's station
10. Trolley end stops at both ends of travel of the trolley

Proper operation required

Operations will not begin unless the devices listed in this section are in proper working order. If a device stops working properly during operations, the operator will safely stop operations. Operations will not resume until the device is again working properly. Alternative measures are not permitted to be used.

11. Operational Aids

1. The devices listed in the following sections ("operational aids") are required on all tower cranes, unless otherwise specified.
2. Operations will not begin unless the operational aids are in proper working order, except where Skanska / crane user meets the specified temporary alternative measures. More protective alternative measures specified by the tower crane manufacturer, if any, will be followed.
3. If an operational aid stops working properly during operations, the operator will safely stop operations until the temporary alternative measures are implemented or the device is again working properly. If a replacement part is no longer available, the use of a substitute device that performs the same type of function is permitted and is not considered a modification.

Category I Operational Aids and Alternative Measures

Operational aids listed in this below that are not working properly will be repaired no later than seven days after the deficiency occurs.

Exception: If the employer documents that it has ordered the necessary parts within seven days of the occurrence of the deficiency, the repair will be completed within seven days of receipt of the parts.

4. Trolley Travel Limiting Device

The travel of the trolley will be restricted at both ends of the jib by a trolley-travel limiting device to prevent the trolley from running into the trolley end stops.

Temporary alternative measures:

1. Option A: The trolley rope will be marked (so it can be seen by the operator) at a point that gives the operator sufficient time to stop the trolley prior to the end stops
2. Option B: A spotter will be used when operations are conducted within 10' of the outer or inner trolley end stops

5. Boom Hoist Limiting Device

The range of the boom will be limited at the minimum and maximum radius.

Temporary alternative measures: Clearly mark the cable (so it can be seen by the operator) at a point that

gives the operator sufficient time to stop the boom hoist within the minimum and maximum boom radius or use a spotter.

6. Anti Two–Blocking Device

The tower crane will be equipped with a device that automatically prevents damage from contact between the load block, overhaul ball or similar component and the boom tip (or fixed upper block or similar component). The device(s) must prevent such damage at all points where two–blocking could occur.

Temporary alternative measures: Clearly mark the cable (so it can be seen by the operator) at a point that will give the operator sufficient time to stop the hoist to prevent two–blocking or use a spotter.

7. Hoist Drum Lower Limiting Device

Tower cranes manufactured more than one year after January 1st, 2011 must be equipped with a device that prevents the last three wraps of hoist cable from being spooled off the drum.

Temporary alternative measures: Mark the cable (so it can be seen by the operator) at a point that will give the operator sufficient time to stop the hoist prior to the last three wraps of hoist cable being spooled off the drum or use a spotter.

8. Load Moment Limiting Device

The tower crane must have a device that prevents moment overloading

Temporary alternative measures: A radius-indicating device will be used (if the tower crane is not equipped with a radius indicating device, the radius will be measured to ensure the load is within the rated capacity of the crane). In addition, the weight of the load will be determined from a reliable source (e.g., the load's manufacturer), by a reliable calculation method (i.e., calculating a steel beam from measured dimensions and a known per foot weight) or by other equally reliable means. This information will be provided to the operator prior to the lift.

9. Hoist Line Pull Limiting Device

The capacity of the hoist will be limited to prevent overloading including each individual gear ratio if equipped with a multiple-speed hoist transmission.

Temporary alternative measures: The operator will ensure that the weight of the load does not exceed the capacity of the hoist (including for each individual gear ratio if equipped with a multiple speed hoist transmission).

10. Rail Travel Limiting Device

The travel distance in each direction will be limited to prevent the travel bogies from running into the end stops or buffers.

Temporary alternative measures: A spotter will be used when operations are conducted within 10' of either end of the travel rail end stops.

11. Boom Hoist Drum Positive Locking Device

The boom hoist drum will be equipped with a device to positively lock the boom hoist drum.

Temporary alternative measures: The device will be manually set when required if an electric, hydraulic or automatic type is not functioning.

12. Category II Operational Aids and Alternative Measures

Operational aids listed in below that are not working properly will be repaired no later than 30 days after the deficiency occurs.

Exception: If the employer can document that it has ordered the necessary parts within seven days of the occurrence of the deficiency, and the part is not received in time to complete the repair in 30 days, the repair will be completed within seven days of receipt of the parts.

1. Boom Angle or Hook Radius Indicator

1. Luffing boom tower cranes will have a boom angle indicator readable from the operator's station.
2. Hammerhead tower cranes will have a hook radius indicator readable from the operator's

station.

3. If either of the above criteria is not met, the following temporary alternative measures may be implemented:

2. Temporary alternative measures:

1. Hook radii or boom angle will be determined by measuring the hook radii or boom angle
2. Trolley travel deceleration device: the trolley speed will be automatically reduced prior to the trolley reaching the end limit in both directions
3. The operator will reduce the trolley speed when approaching the trolley end limits
4. Boom hoist deceleration device: the boom speed will be automatically reduced prior to the boom reaching the minimum or maximum radius limit
5. The operator will reduce the boom speed when approaching the boom maximum or minimum end limits
6. Load hoist deceleration device: the load speed will be automatically reduced prior to the hoist reaching the upper limit
7. The operator will reduce the hoist speed when approaching the upper limit
8. Wind speed indicator: a device will be provided to display the wind speed and mounted above the upper rotating structure on tower cranes. On self-erecting cranes, it will be mounted at or above the jib level.
9. Use of wind speed information from a properly functioning indicating device on another tower crane on the same site or a qualified person estimates the wind speed
10. Load indicating device: Cranes manufactured after 2012 will have a device that displays the magnitude of the load on the hook. Displays that are part of load-moment limiting devices that display the load on the hook meet this requirement.
11. The weight of the load will be determined from a reliable source (e.g., the load's manufacturer), by a reliable calculation method (i.e., calculating a steel beam from measured dimensions and a known per foot weight) or by other equally reliable means. This information will be provided to the operator prior to the lift.

13. Pre-Erection Inspections

Before each crane component is erected:

1. It must be inspected by a qualified person for damage or excessive wear. The qualified person must pay particular attention to components that will be difficult to inspect thoroughly during shift inspections.
2. If the qualified person determines that a component is damaged or worn to the extent that it would create a safety hazard if used on the crane, that component must not be erected on the crane unless it is repaired and, upon re-inspection by the qualified person, found to no longer create a safety hazard.
3. If the qualified person determines that, though not presently a safety hazard, the component needs to be monitored, the employer must ensure that the component is checked in the monthly inspections. Any such determination must be documented and the documentation must be available to any individual who conducts a monthly inspection.

14. Post-Erection Inspection

The following requirements will be met:

1. A load test using certified weights or scaled weights using a certified scale with a current certificate of calibration will be conducted after each erection. The load test will be conducted in accordance with the manufacturer's instructions. Where these instructions are will develop written load-test procedures.
2. See the Annual Inspections / Nondestructive Testing section for additional requirements

15. Daily / Pre-shift Inspection

See the Daily / Pre-shift Inspections section for additional requirements

16. Monthly Inspection

The following additional items will be included:

1. Tower (mast) bolts and other structural bolts (for loose or dislodged condition) from the base of the tower crane up or, if the crane is tied to or braced by the structure, those above the upper-most brace support
2. The uppermost tie-in, braces, floor supports and floor wedges where the tower crane is supported by the structure, shall be inspected for loose or dislodged components
3. See the Daily / Pre-shift Inspections section for additional requirements

17. Annual Inspection

1. In addition to the items that must be inspected, all turntable and tower bolts must be inspected for proper condition and torque.
2. See the Annual Inspections / Nondestructive Testing section for additional requirements

2. Derricks

This section contains supplemental requirements for derricks. Whether temporarily or permanently mounted, all sections of this subpart apply to derricks unless specified otherwise. A derrick is powered equipment consisting of a mast or equivalent member that is held at or near the end by guys or braces, with or without a boom and its hoisting mechanism. The mast / equivalent member and/or the load is moved by the hoisting mechanism (typically base-mounted) and operating ropes. Derricks include: A-frame, basket, breast, Chicago boom, gin pole (except gin poles used for erection of communication towers), guy, shearleg, stiffleg and variations of such equipment.

1. **Operation – Procedures** Section OSHA 1926.1417 (Operation) applies except for OSHA 1926.1417(c) Accessibility of procedures.

1. Load Chart Contents

Load charts will contain at least:

1. Rated capacity at corresponding ranges of boom angle or operating radii
2. Specific lengths of components to which the rated capacities apply
3. Required parts for hoist reeving
4. Size and construction of rope
5. Load chart location

2. Permanent Installations

For permanently installed derricks with fixed lengths of boom, guy and mast, a load chart will be posted where it is visible to personnel responsible for the operation of the equipment.

3. Non-Permanent Installations

For derricks that are not permanently installed, the load chart will be readily available at the job site to personnel responsible for the operation of the equipment.

2. Construction and Anchoring

General Requirements

1. Derricks will be constructed to meet all stresses imposed on members and components when installed and operated in accordance with the manufacturer's procedures and within its rated capacity
2. Welding of load-sustaining members will conform to recommended practices in ANSI/AWS D14.3 –94 or D1.1–2

3. Guy Derricks

1. The minimum number of guys is six, with equal spacing, except where a qualified person or derrick manufacturer approves variations from these requirements and revises the rated capacity to compensate for such variations. Guy derricks will not be used unless the employer has the following guy information:
 1. The number of guys
 2. The spacing around the mast
 3. The size, grade and construction of rope to be used for each guy
2. The anchorage and guying will be designed to withstand maximum horizontal and vertical forces encountered when operating within rated capacity with the particular guy slope and spacing specified for the application.
3. For guy derricks manufactured after December 18, 1970, in addition to the information required in this section, the employer will have the following guy information:
 1. The amount of initial sag or tension
 2. The amount of tension in guy line rope at anchor
4. The mast base will permit the mast to rotate freely with allowance for slight tilting of the mast caused by guy slack.

The mast cap will:

1. Permit the mast to rotate freely
2. Withstand tilting and cramping caused by the guy loads
3. Be secured to the mast to prevent disengagement during erection
4. Be provided with means for attaching guy ropes

4. Stiffleg Derricks

1. The mast will be supported in the vertical position by at least two stifflegs. One end of each will be connected to the top of the mast and the other end securely anchored. The stifflegs will be capable of withstanding the loads imposed at any point of operation within the load chart range, and the mast base will:
 1. Permit the mast to rotate freely (when necessary)
 2. Permit deflection of the mast without binding
 3. Be prevented from lifting out of its socket when the mast is in tension
 4. Be anchored
 5. Be designed to withstand maximum horizontal and vertical forces encountered when operating within rated capacity with the particular stiffleg spacing and slope specified for the application
2. The stiffleg connecting member at the top of the mast will:
 1. Permit the mast to rotate freely (when necessary)
 2. Withstand the loads imposed by the action of the stifflegs
 3. Be secured so as to oppose separating forces
 4. Be anchored
 5. Be designed to withstand maximum horizontal and vertical forces encountered when operating within rated capacity with the particular stiffleg spacing and slope specified for the application

5. Gin Pole Derrick

Guy lines will be sized and spaced to stabilize the gin pole in both boomed and vertical positions.

Exceptions:

1. Where the size and/or spacing of guy lines do not result in the gin pole being stable in both boomed and vertical positions, the employer will ensure that the derrick is not used in an unstable position
2. The base of the gin pole will permit movement of the pole (when necessary). The gin pole shall be anchored at the base against horizontal forces (when such forces are present)

6. Chicago Boom Derrick

The fittings for stepping the boom and for attaching the topping lift will be arranged to:

1. Permit the derrick to swing at all permitted operating radii and mounting heights between fittings
2. Accommodate attachment to the upright member of the host structure
3. Withstand the forces applied when configured and operated in accordance with the manufacturer's procedures and within its rated capacity
4. Prevent the boom or topping lift from lifting out under tensile forces

7. Swingers and Hoists

The boom, swinger mechanisms and hoists will be suitable for the derrick work intended and will be anchored to prevent displacement from the imposed loads. Base-mounted drum hoists will meet the requirements in the following sections of ASME B30.7-2001:

1. Sections 7-1.1 (Load ratings and markings)
2. Section 7-1.2 (Construction), except: 7-1.2.13 (Operator's cab) 7-1.2.15 (Fire extinguishers)
3. Section 7-1.3 (Installation)
4. Applicable terms in section 7-0.2 (Definitions)

8. Load Tests for New Hoists

The employer will ensure that new hoists are load tested to a minimum of 110 percent of rated capacity, but not more than 125 percent of rated capacity, unless otherwise recommended by the manufacturer. This requirement is met where the manufacturer has conducted this testing.

9. Repaired or Modified Hoists

Hoists that have had repairs, modifications or additions affecting their capacity or safe operation will be evaluated by a qualified person to determine if a load test is necessary. If it is, load testing will be conducted in accordance

with this policy and manufacturer requirements.

10. Load Test Procedure

Load tests required by this policy will be conducted as follows:

1. The test load will be hoisted a vertical distance to assure that the load is supported by the hoist and held by the hoist brake(s)
2. The test load will be lowered, stopped and held with the brake(s)
3. The hoist will not be used unless a competent person determines that the test has been passed

11. Operational Aids

Section OSHA 1926.1416 (Operational aids) applies, except for:

- OSHA 1926.1416 (d)(1) Boom hoist limiting device and
- OSHA 1926.1416(e)(1) Boom angle or radius indicator and
- OSHA 1926.1416(e)(4) Load weighing and similar devices.

1. Boom Angle Aid

The employer will ensure that either:

1. The boom hoist cable is marked with caution and stop marks. The stop marks will correspond to maximum and minimum allowable boom angles. The caution and stop marks will be in view of the operator or a spotter who is in direct communication with the operator.
2. An electronic or other device that signals the operator in time to prevent the boom from moving past its maximum and minimum angles, or automatically prevents such movement, is used

2. Load Weight / Capacity Devices

1. Derricks manufactured after 2012 with a maximum rated capacity over 6,000 pounds will have at least one of the following: load weighing device, load moment indicator, rated capacity indicator or rated capacity limiter.
2. Temporary alternative measures: The weight of the load will be determined by a reliable source (e.g., the load's manufacturer), by a reliable calculation method (i.e., calculating a steel beam from measured dimensions and a known per foot weight) or by other equally reliable means. This information will be provided to the operator prior to the lift.

12. Post-Assembly Approval and Testing – New or Reinstalled Derricks

1. Functional Test

Prior to initial use, new or reinstalled derricks will be tested with no hook load by a competent person to verify proper operation. This test will include:

1. Lifting and lowering the hook(s) through the full range of hook travel
2. Raising and lowering the boom through the full range of boom travel
3. Swinging in each direction through the full range of swing
4. Actuating the anti two-block and boom hoist limit devices (if provided)
5. Actuating the locking, limiting and indicating devices (if provided)

2. Load Test

Prior to initial use, new or reinstalled derricks will be load tested by a qualified person.

1. The test load will meet the following requirements:
 - a. Test loads will be at least 100 percent and no more than 110 percent of the rated capacity unless otherwise recommended by the manufacturer or qualified person but in no event will the test load be less than the maximum anticipated load
2. The test will consist of:
 - a. Hoisting the test load a few inches and holding to verify that the load is supported by the derrick and held by the hoist brake(s)
 - b. Swinging the derrick, if applicable, the full range of its swing, at the maximum allowable working radius for the test load
 - c. Booming the derrick up and down within the allowable working radius for the test load
 - d. Lowering, stopping and holding the load with the brake(s).
3. The derrick will not be used unless the qualified person determines that the test has been passed.

4. Documentation

Tests conducted under this section will be documented. The document will contain the date, test results and the name of the tester. The document will be retained until the derrick is re-tested or dismantled, whichever occurs first.

3. Load Testing Repaired or Modified Derricks

Derricks that have had repairs, modifications or additions affecting the derrick's capacity or safe operation will be evaluated by a qualified person to determine if a load test is necessary. If a load test is necessary, it will be conducted and documented in accordance with this policy.

13. Power Failure Procedures

If power fails during operations, the derrick operator will safely stop operations. This includes setting all brakes or locking devices and moving all clutch and other power controls to the off position.

14. Use of Winch Heads

Ropes will not be handled on a winch head without the knowledge of the operator. While a winch head is being used, the operator will be within reach of the power unit control lever.

15. Securing the Boom

1. When the boom is being held in a fixed position, dogs, pawls or other positive holding mechanisms on the boom hoist will be engaged. When taken out of service for 30 days or more, the boom will be secured by one of the following methods:
 1. Laid down
 2. Secured to a stationary member, as nearly under the head as possible, by attachment of a sling to the load block for guy derricks, lifted to a vertical position and secured to the mast for stiffleg derricks, secured against the stiffleg

The process of jumping the derrick will be supervised by the A/D supervisor.

Derrick operations will be supervised by a competent person.

2. Inspections

In addition to the requirements in OSHA 1926.1412, the following additional items will be included in the inspections:

1. Daily: Guys for proper tension
2. Annual: Gudgeon pin for cracks, wear and distortion
3. Foundation supports for continued ability to sustain the imposed loads. OSHA 1926.1427 Operator qualification and certification does not apply.

3. Floating Cranes, Derricks and Land Cranes, Derricks on Barges

This section contains supplemental requirements for floating cranes / derricks and land cranes / derricks on barges, pontoons, vessels or other means of flotation (vessel / flotation device). All sections of this subpart apply to floating cranes / derricks and land cranes / derricks on barges, pontoons, vessels or other means of flotation, unless specified otherwise. The requirements of this section do not apply when using jacked barges when the jacks are deployed to the river / lake / sea bed and the barge is fully supported by the jacks

1. General Requirements

The following this section apply to both floating cranes / derricks and land cranes / derricks on barges, pontoons, vessels or other means of flotation

2. Work Area Control

The requirements of OSHA 1926.1424 Work area control apply, except for OSHA 1926.1416 (a) (2) (ii).

The employer must either:

1. Erect and maintain control lines, warning lines, railings or similar barriers to mark the boundaries of the

hazard areas.

2. Or: Clearly mark the hazard areas using a combination of warning signs (such as "Danger — Swing / Crush Zone") and high visibility markings on the equipment that identify the hazard areas. In addition, the employer will train the employees to understand what these markings signify.

3. Keeping Clear of the Load

OSHA 1926.1425 does not apply.

4. Additional Safety Devices

In addition to the safety devices listed in OSHA 1926.1415, the following safety devices are required:

1. Barge, pontoon, vessel or other means of flotation list and trim device, located in the cab or, where there is no cab, at the operator's station
2. Horn
3. Positive equipment house lock
4. Wind speed and direction indicator: A competent person will determine if wind is a factor that needs to be considered. If it needs to be considered, a wind speed and direction indicator will be used

5. Operational Aids

An anti two-block device is required only when hoisting personnel or hoisting over an occupied cofferdam or shaft.

OSHA 1926.1416(e)(4) Load weighing and similar devices does not apply to dragline, clamshell (grapple), magnet, drop ball, container handling, concrete bucket and pile driving work.

6. Accessibility of Procedures Applicable to Equipment Operation

If the crane / derrick has a cab, the requirements of OSHA 1926.1417(c) apply. If the crane / derrick does not have a cab, rated capacities (load charts) will be posted at the operator's station. If the operator's station is moveable (such as with pendant-controlled equipment), the load charts will be posted on the equipment

Procedures applicable to the operation of the equipment (other than load charts), recommended operating speeds, special hazard warnings, instructions and operators manual, will be readily available on board.

7. Inspections

In addition to meeting the requirements of OSHA 1926.1412 for inspecting the crane / derrick, the employer will ensure that the barge, pontoons, vessel or other means of flotation used to support a floating crane / derrick or land crane / derrick is inspected as follows:

1. Shift Inspections

The means used to secure / attach the equipment to the vessel / flotation device will be inspected for proper condition, including wear, corrosion, loose or missing fasteners, defective welds and (where applicable) insufficient tension.

See the Daily / Pre-Shift Inspections section for additional requirements

2. Monthly Inspections

The vessel / flotation device used will be inspected for the following:

1. The means used to secure / attach the equipment to the vessel / flotation device will be inspected for proper condition, including wear, corrosion and (where applicable) insufficient tension.
2. The vessel/flotation device is not taking on water.
3. The deck load is properly secured.
4. Chain lockers, storage, fuel compartments and battening of hatches for serviceability as a water-tight appliance.
5. Firefighting and lifesaving equipment in place and functional.

The shift and monthly inspections will be conducted by a competent person. If any deficiency is identified, an immediate determination will be made by a qualified person as to whether the deficiency constitutes a hazard. If the deficiency is determined to constitute a hazard, the vessel / flotation device will be removed from service until it has been corrected.

See the Monthly Inspections section for additional requirements

3. Annual Inspections

External vessel / flotation device inspection

1. The external portion of the barge, pontoons, vessel or other means of flotation used will be inspected annually by a qualified person who has expertise with respect to vessels / flotation devices. The inspection will include the items identified above as Shift and Monthly of this section.
2. In addition, cleats, bitts, chocks, fenders, capstans, ladders and stanchions will be inspected for significant:
 - a. Corrosion, wear, deterioration and deformation
 - b. External evidence of leaks and structural damage
 - c. Four-corner draft readings checked
 - d. Firefighting equipment for serviceability
 - e. Rescue skiffs, lifelines, work vests, life preservers and buoys for condition
3. If any deficiency is identified, an immediate determination will be made by the qualified person as to whether the deficiency constitutes a hazard or, though not yet a hazard, needs to be monitored in the monthly inspections.
4. If the deficiency is determined to constitute a hazard, the vessel / flotation device will be removed from service until it has been corrected.
5. If the qualified person determines that, though not presently a hazard, the deficiency needs to be monitored, the employer will ensure that the deficiency is checked in the monthly inspections.
6. See the Annual / Comprehensive Inspections section for additional requirements

4. Quadrennial Inspections (4-year Inspections)

Internal vessel / flotation device inspection

1. The internal portion of the barge, pontoons, vessel or other means of flotation used will be surveyed once every four years by a marine engineer, marine architect, licensed surveyor or other qualified person who has expertise with respect to vessels / flotation devices.
2. If any deficiency is identified, an immediate determination will be made by the surveyor as to whether the deficiency constitutes a hazard or, though not yet a hazard, needs to be monitored in the monthly or annual inspections, as appropriate.
3. If the deficiency is determined to constitute a hazard, the vessel / flotation device will be removed from service until it has been corrected.
4. If the surveyor determines that, though not presently a hazard, the deficiency needs to be monitored, the employer will ensure that the deficiency is checked in the monthly or annual inspections, as appropriate.

5. Documentation

The monthly and annual inspections required in this section (above) will be documented in accordance with OSHA 1926.1412 (e) (3) and 1926.1412(f)(7), respectively.

The quadrennial inspection required in this section will be documented in accordance with OSHA 1926.1412(f) (7), and the documentation for that inspection will be retained for a minimum of four years.

8. Working with a Diver

The following additional requirements apply when working with a diver in the water:

1. If a crane / derrick is used to get a diver into and out of the water, it will not be used for any other purpose until the diver is back on board. When used for more than one diver, it will not be used for any other purpose until all divers are back on board.
2. The operator will remain at the controls of the crane / derrick at all times. In addition to the requirements in OSHA 1926.1419 through 1422 Signals, either:
 1. A clear line of sight will be maintained between the operator and tender
 2. The signals between the operator and tender will be transmitted electronically
3. The means used to secure the crane / derrick to the vessel / flotation device must not allow any amount of shifting in any direction.
4. The employer must ensure that the manufacturer's specifications and limitations with respect to environmental, operational and in-transit loads for the barge, pontoons, vessel or other means of flotation are

not exceeded or violated.

9. Load Charts

1. The manufacturer load charts applicable to operations on water will not be exceeded. When using these charts, the employer will comply with all parameters and limitations (such as dynamic / environmental parameters) applicable to the use of the charts.
2. The load charts will take into consideration a minimum wind speed of 40 miles per hour.
3. The requirements for maximum allowable list and maximum allowable trim as specified in Table M1 of this section will be met. Reference OSHA 1926.1437(m) (1) – (m) (4)

TABLE M1 – Maximum Allowable List and Trim		
Rated Capacity	Maximum Allowable List	Maximum Allowable Trim
Equipment designed for marine use by permanent attachment (other than derricks):		
25 tons or less	5 degrees	5 degrees
Over 25 tons	7 degrees	7 degrees
Derricks designed for marine use by permanent attachment:	10 degrees	10 degrees

4. The equipment will be stable under the conditions specified in Tables M2 and M3 of this section. Anything less than minimum freeboard list needs to be approved by an RPE.

TABLE M2 – Equipment freeboard stability requirements		
Operated at	Wind speed	Minimum freeboard
Rated capacity	60 mph	2 ft.
Rated capacity plus 25%	60 mph	1 ft.
High boom, no load	60 mph	2 ft.

TABLE M3 – Equipment freeboard stability requirements	
Operated at	Wind speed
For backward stability of the boom: High boom, no load, full back list (least stable condition)	90 mph

5. If the equipment is employer-made, it will not be used unless the employer has documents demonstrating that the load charts and applicable parameters for use meet the requirements of this policy. Such documents will be signed by an RPE who is a qualified person with respect to the design of this type of equipment (including the means of flotation). The barge, pontoons, vessel or other means of flotation used will:
 1. Be structurally sufficient to withstand the static and dynamic loads of the crane / derrick when operating at the crane / derrick's maximum rated capacity with all anticipated deck loads and ballasted compartments
 2. Have a subdivided hull with one or more longitudinal watertight bulkheads for reducing the free surface effect
 3. Have access to void compartments to allow for inspection and pumping
6. The rated capacity of the equipment (load charts) applicable for use on land will be reduced to account for increased loading from list, trim, wave action and wind, be applicable to a specified location(s) on the specific barge, pontoons, vessel or other means of flotation that will be used, under the expected environmental conditions and ensure that the conditions required in this section are met.
7. The equipment manufacturer, or a qualified person who has expertise with respect to both land crane / derrick capacity and the stability of vessels / flotation device, will complete the rated capacity modification required in this section.

10. List and Trim

1. The maximum allowable list and the maximum allowable trim for the barge, pontoon, vessel or other means of flotation will not exceed the amount necessary to ensure that the conditions in Table M2 of this section are met. In addition, the maximum allowable list and the maximum allowable trim will not exceed the least of the following:
 1. Five degrees
 2. The amount specified by the crane / derrick manufacturer

3. The amount specified by the qualified person, when an amount is not specified by the manufacturer
2. The maximum allowable list and the maximum allowable trim for the land crane / derrick will not exceed the amount specified by the crane / derrick manufacturer or, where an amount is not so specified, the amount specified by the qualified person.
3. The following conditions will be met:
 1. All deck surfaces of the barge, pontoons, vessel or other means of flotation used will be above water
 2. The entire bottom area of the barge, pontoons, vessel or other means of flotation used will be submerged

11. Physical Attachment, Corralling, Rails System and Centerline Cable System

The employer will meet the requirements in Option 1, Option 2, Option 3 or Option 4 of this section. Whichever option is used, the requirements of this subsection must also be met.

Option 1 – Physical attachment

The crane / derrick will be physically attached to the barge, pontoons, vessel or other means of flotation. Methods of physical attachment include crossed-cable systems attached to the crane / derrick and vessel / flotation device (this type of system allows the crane / derrick to lift up slightly from the surface of the vessel / means of flotation), bolting or welding the crane / derrick to the vessel / flotation device, strapping the crane / derrick to the vessel / flotation device with chains or other methods of physical attachment.

Option 2 – Corralling

The crane / derrick will be prevented from shifting by installing barricade restraints (a corralling system). Corralling systems will not allow any amount of shifting in any direction by the equipment.

Option 3 – Rails

The crane / derrick will be mounted on a rail system to prevent shifting. Rail clamps and rail stops are required unless the system is designed to prevent movement during operation by other means.

Option 4 – Centerline cable system

The crane / derrick will be mounted to a wire rope system to prevent shifting. The wire rope system will meet the following requirements:

1. The wire rope and attachments will be of sufficient size / strength to support the side load of crane / derrick
 2. The wire rope will be physically attached to the vessel / flotation device
 3. The wire rope will be attached to the crane / derrick by appropriate attachment methods (such as shackles or sheaves) on the undercarriage, which will allow the crew to secure the crane / derrick from movement during operation and to move the crane / derrick longitudinally along the vessel / flotation device for repositioning
 4. Means shall be installed to prevent the crane / derrick from passing the forward or aft end of the wire rope attachments
 5. The crane / derrick will be secured from movement during operation
2. The systems / means used to comply with Option 1, Option 2, Option 3 or Option 4 of this section will be designed by a marine engineer, an Registered Professional Engineer (RPE) familiar with floating crane / derrick design, or a qualified person familiar with floating crane / derrick design.
 3. Exception: For mobile auxiliary cranes used on the deck of a floating crane / derrick, the requirement to use Option 1, Option 2, Option 3 or Option 4 of this section does not apply when the employer demonstrates implementation of a plan and procedures that meet the following requirements:
 1. A marine engineer or RPE familiar with floating crane / derrick design develops and signs a written plan for the use of the mobile auxiliary crane.
 2. The plan will be designed so that the applicable requirements of this section are met despite the position, travel, operation and lack of physical attachment (or corralling, use of rails or cable system) of the mobile auxiliary crane.
 3. The plan will specify the areas of the deck where the mobile auxiliary crane is permitted to be positioned, travel and operate, and the parameters / limitations of such movements and operation.
 4. The deck will be marked to identify the permitted areas for positioning, travel and operation.
 5. The plan will specify the dynamic / environmental conditions that must be present for use of the plan.
 4. If the dynamic / environmental conditions of this subsection are exceeded, the mobile auxiliary crane will be physically attached or corralled in accordance with Option 1, Option 2 or Option 4 of this section.
 5. The barge, pontoons, vessel or other means of flotation used will:
 1. Be structurally sufficient to withstand the static and dynamic loads of the crane / derrick when operating at the crane / derrick's maximum rated capacity with all anticipated deck loads and ballasted compartments.
 2. Have a subdivided hull with one or more longitudinal watertight bulkheads for reducing the free surface effect.

3. Have access to void compartments to allow for inspection and pumping.

4. Overhead & Gantry Cranes

1. Permanently Installed Overhead and Gantry Cranes

This paragraph applies to the following equipment when used in construction and permanently installed in a facility: overhead and gantry cranes, including semi gantry, cantilever gantry, wall cranes, storage bridge cranes, and others having the same fundamental characteristics.

The requirements of OSHA 1910.179, except for OSHA 1910.179(b) (1), apply to the equipment identified in the paragraph above of this section.

2. Overhead and Gantry Cranes that are Not Permanently Installed in a Facility

This section applies to the following equipment when used in construction and not permanently installed in a facility: overhead and gantry cranes, overhead / bridge cranes, semi gantry, cantilever gantry, wall cranes, storage bridge cranes, launching gantry cranes and similar equipment, irrespective of whether it travels on tracks, wheels, or other means.

The following requirements apply to equipment identified in the paragraph directly above in this section:

1. OSHA 1926.1400 through 1414; OSHA 1926.1417 through 1425; OSHA 1926.1426(d), OSHA 1926.1427 through 1434; OSHA 1926.1437, OSHA 1926.1439, and OSHA 1926.1441
2. The following portions of OSHA 1910.179:
3. Paragraphs (b)(5),(6),(7); (e)(1),(3),(5),(6); (f)(1),(4); (g); (h)(1),(3); (k); and (n) of OSHA 1910.179
4. The definitions in OSHA 1910.179 (a) except for "hoist" and "load." For those words, the definitions in OSHA 1926.1401 apply
5. OSHA 1910.179 (b)(2) applies only to equipment identified in paragraph (b)(1) of this section manufactured before September 19, 2001
6. For equipment manufactured on or after September 19, 2001, the following sections of ASME B.30.2–2011 apply: 2-1.3.1; 2-1.3.2; 2-1.4.1; 2-1.6; 2-1.7.2; 2-1.8.2; 2-1.9.1; 2-1.9.2; 2-1.11; 2-1.12.2; 2-1.13.7; 2-1.14.2; 2-1.14.3; 2-1.14.5; 2-1.15.; 2-2.2.2; 2-3.2.1.1. In addition, 2-3.5 applies, except in 2-3.5.1 (b), "29CFR 1910.147" is substituted for "ANSI Z244.1"

5. Unconventional Cranes: Regional / Project-Specific Requirements

- None *

10. Program Management

1. Crane Management System

1. For Skanska owned and rented cranes, the RCC will utilize Intalex for reporting and tracking purposes. The database will include all information related to each Skanska owned or rented crane. It will include size, capacity, make, model, location, status of inspections, certification number, historical maintenance data and all other applicable information related to each crane.
2. Intalex will alert the RCC to upcoming expiring monthly, annual and periodic inspections. The RCC will schedule inspections with the PCC.
3. If at any time a PCC is not available on a jobsite and an action needs to take place, the following hierarchy of authority governs:
 1. Superintendent
 2. Project manager
 3. Project executive
4. If a PCC is removed from the jobsite, there will be a transition period of one month while a new PCC is selected and trained.

2. Program: Regional / Project-Specific Requirement, Approvals and Storage

Each region and project may require amendments to this minimum policy for a specific owner and/or regional variations. Regional and project-specific requirements need to be approved by the EHS and Equipment Departments.

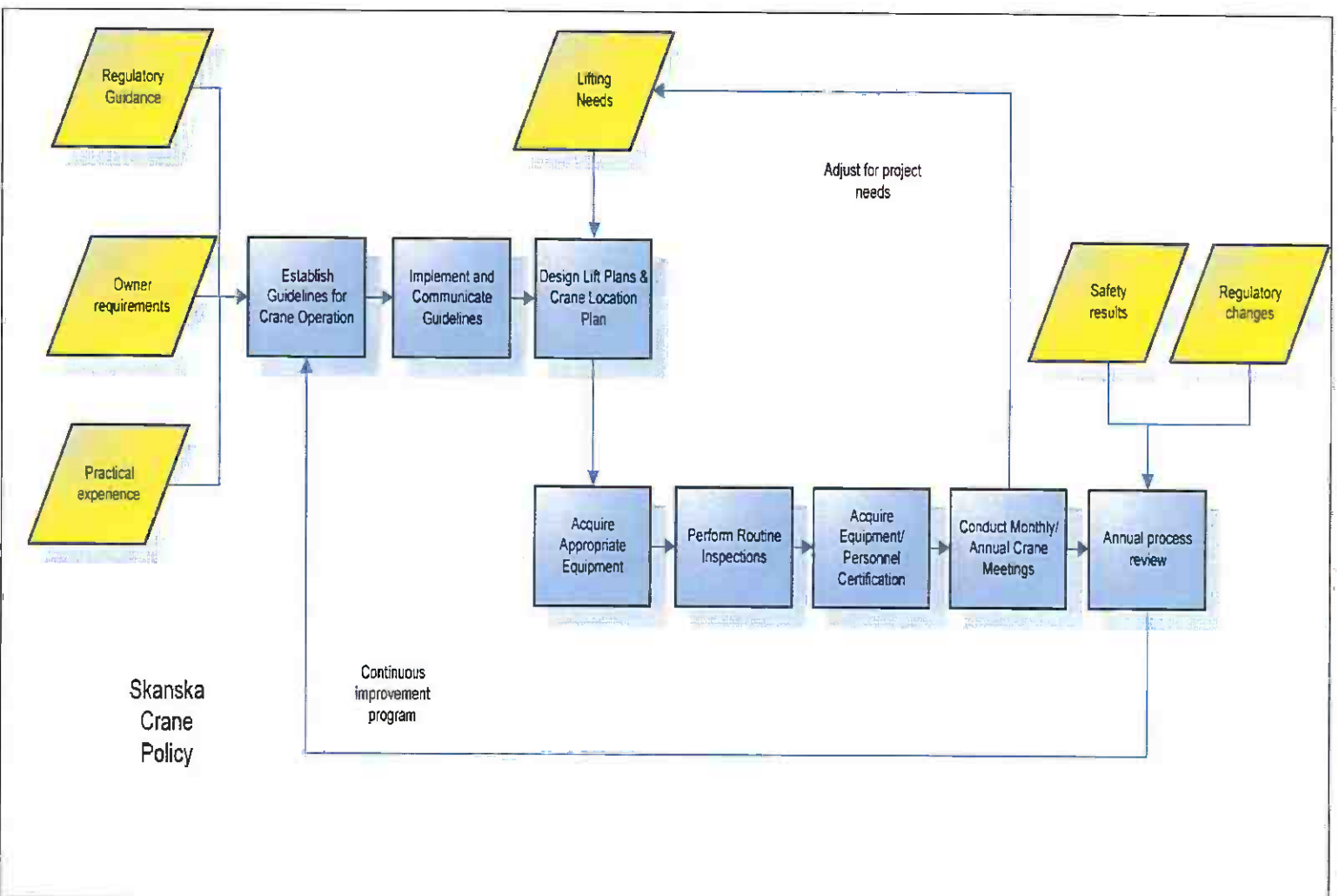
- None

3. Document Storage

Monthly and periodic inspections will be stored in multiple locations. Hard copies of the most recent inspection must be stored in the crane and in the equipment file. These documents will be available upon request at the site of operation.

4. Program Evaluation and Improvement

The Skanska Crane Policy will be evaluated and revised routinely in conjunction with Skanska's EHS manual.



EHS Forms and Documents

- 7460-1 FAA Permit, if applicable.

Applicable Training

- Emergency response
- Confined space entrant, attendant, supervisor, and rescuer training
- Atmospheric testing
- Lockout/tagout

Training Links

- [Mobile Crane Safety - Construction \[Competent Person\] - Mobile Crane Safety - Construction \[Competent Person\]](#)

Potential Related Safety, Health and/or Environmental Aspects

- None



Demolition

Objective

The purpose of this program is to establish project-specific guidelines to ensure the highest level of safety during demolition operations.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.850 - Preparatory operations](#)
- [NFPA 241](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 4 §1532.3](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 31 §1733-1737](#)

Skanska/Client Requirements

- None

Procedure

1. Demolition plan

1. Prior to demolition activities, a hazardous material survey must be accomplished to identify all hazardous materials (e.g. asbestos, lead, PCBs mercury, etc.).
2. Before starting any demolition activities, each job must develop a project-specific demolition plan.
3. The demolition plan must indicate the phases of work by method. Risk assessment is a critical component when selecting the final method.
4. The plan should include (if they are applicable):
 - Engineering survey report
 - Hazardous materials survey
 - Abatement plans for each hazardous material
 - Demolition method plan
 - Utility protection plan
 - Shoring or bracing plan
 - Fall protection plan
 - Worker access plan
 - Maintenance of Traffic (MOT) plans
 - Dust control plan
 - Waste/debris disposal plan
 - Pest and rodent control (vermin control)
 - Noise and vibration assessment based on demolition means and methods
 - Permits
5. Any project specific requirements for this section are listed here.
 - None

2. Engineering survey

1. Prior to demolition operations, an engineering survey report will be made by a competent person of the structure per OSHA 29 CFR 1926.850, Subpart T.
2. The completed engineering survey report form must be kept onsite during all operations.
3. Any project specific requirements for this section are listed here.
 - None

3. Hazardous materials survey and abatement plan

1. Prior to the disturbance/removal of any identified or suspect hazardous materials, take the necessary precautions to ensure worker and community safety.
2. Any project specific requirements for this section are listed here.

- None

4. Utility protection plan

1. All known or suspected utilities must be clearly identified (using Call Before You Dig or other utility locate service) and marked before demolition work begins.
2. The demolition plan must list each known or suspected utility and indicate the following:
 - Is the utility scheduled to remain or will it be removed before demolition begins?
 - If the utility remains, is protection required including any bracing or shoring?
 - Project management must decide if demolition work can safely proceed if high-risk utilities are suspected in the demolition area.
 - Testing and purging of pipes, tanks or other equipment containing hazardous, flammable or explosive substances must be considered and highlighted in the demolition plan.
3. Any project specific requirements for this section are listed here.
 - None

5. Shoring or bracing plan

1. The demolition plan must identify the structures impacted by demolition, including internal walls, flooring or bracing and external structure (for example party walls that may rely on or be impacted by the demolished structure).
2. Any project specific requirements for this section are listed here.
 - None

6. Dust control plan

1. The demolition plan must state if permitting requires dust control, the type of dust suppressant used (i.e., water, chemical or both), the source (i.e., fire hydrant, ponded water, or tanker) and what equipment is needed to spray the water (i.e., type of pump, length of hose, nozzles, etc.)
2. Any project specific requirements for this section are listed here.
 - None

7. Disposal plan

1. The demolition plan must list the type of debris requiring disposal and must state where each waste is being disposed and how it will be removed from the structure.
2. Any project specific requirements for this section are listed here.
 - None

8. Pest and rodent control plan

1. The demolition plan must state if permitting requires a pest and rodent control plan and the procedures that will be taken.
2. Any project specific requirements for this section are listed here.
 - None

9. Noise and vibration assessment

1. The demolition plan must assess noise and vibration impacts and appropriate controls.
2. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- [Demolition - Pre-Demolition Survey Checklist - Demolition - Pre-Demolition Survey Checklist](#)

Applicable Training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Concrete and Masonry
- Confined and Enclosed Spaces
- None



Dropped Object Protection

Objective

This plan establishes the guidelines to prevent materials, such as construction materials, tools, equipment, debris, hard hats/helmets, radios, phones, etc., from falling from elevation and causing harm to workers, members of the public, and damage to tools, material and property.

Legal and Other Requirements

Federal, State, Local Regulations

- None

Skanska/Client Requirements

- None

Procedure

1. General Requirements

1. Include dropped object prevention controls in Construction Work Plans and Daily Hazard Analyses.
2. The following items shall be included in the plan: construction materials, tools, equipment, debris, hard hats/helmets, radios, phones, etc.
3. Controls may include the following:
 - Sequencing of work to prevent trade stacking
 - Tool tethering
 - Debris netting
 - Barricades
 - Cocoon systems
4. If there is a potential for materials or equipment to fall, all areas below must be secured with barricades and signage.
5. If there is a potential for tools to fall, tool tethers, barricades and signage shall be used.
6. Any project specific requirements for this section are listed here.
 - None

2. Tool and Material Storage

1. Tools, loose materials and equipment with the potential of being displaced shall not be stored within six (6) feet of any hoist way or inside floor openings, nor within 10 feet of an exterior edge unless the opening/edge is protected sufficiently.
2. All tools, loose materials, and equipment that are not in use while working at heights shall be secured against accidental displacement.
3. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Concrete and Masonry
- Confined and Enclosed Spaces
- Excavation and Trenching

- Scaffolds
- Stairways and Ladders
- Steel Erection
- Welding and Cutting



Electrical

Objective

The purpose of this program is to protect against the hazards associated with electricity. Our safeguards against electrical hazards include lockout/tagout (LOTO) procedures and general requirements for work involving any type of electricity or electric tool.

Legal and Other Requirements

Federal, State, Local Regulations

- NEC
- [California Code of Regulations, Title 8, Subchapter 5 §2299-2989](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 33 §1760](#)
- [NFPA 70 and 70E](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 3 §1518](#)
- [OSHA 29 CFR 1926 Subpart K](#)
- [OSHA 29 CFR 1926 Subpart V - Electric Power Transmission and Distribution](#)

Skanska/Client Requirements

- None

Procedure

1. General Requirements

1. All cords shall be elevated above the work surface when practical.
2. Wire, nails or other conductive material shall not be used to hang or attach cords or welding leads.
3. Cords that cross roadways shall be protected from damage by vehicle and equipment traffic by devices such as hose bridges.
4. Nationally Recognized Testing Laboratories (NRTL) approved (e.g., UL) covers are required on all panels, load centers, pull boxes, etc. prior to energizing. Equipment shall be secured to prevent unauthorized/unqualified workers access to energized electrical parts or equipment.
5. No work will be performed on any energized electrical circuit, busbars, equipment or panels unless a work plan is developed in accordance with Chapter 1 of NFPA 70E and submitted to Skanska management for review prior to performance of work.
6. Electrical equipment and tools shall be inspected by a competent person to prevent any worker from receiving an electrical shock. This rule applies to all cords, portable electrical equipment, tools and appliances not part of any permanent building or structural electrical systems.
7. All temporary cords shall be three-wire, 16 gauge or heavier, with a hard or extra-hard duty rating.
8. Electrical tape cannot be used to repair electrical cords.
9. All cords shall be visually inspected daily.
10. Repairs shall be completed by a designated competent person and be done in accordance with manufacturer's specifications.
11. Once permanent power is energized all exposed live conductors shall be covered (e.g., outlet covers and panels).
12. Prior to drilling through floors and walls where an energized electrical hazard exists, confirmation of the location of existing electrical hazards shall be verified and communicated to the workers. Means of identification may include, but are not limited to x-ray, electronic stud finder with AC detection, review of as-builts, etc.
13. Any project specific requirements for this section are listed here.
 - None

2. Ground Fault Circuit Interrupters (GFCI)

1. All cords, tools and appliances that are 120 volts shall be connected to a GFCI. Office equipment and appliances in site offices do not require GFCI devices.
2. All GFCIs shall be tested prior to use. If a damaged GFCI is identified it shall not be used and it should be reported to a supervisor.
3. Any project specific requirements for this section are listed here.
 - None

3. Double-Insulated Tools

1. All tools must have a grounding conductor/prong or be double-insulated.
2. If the double-insulated label has been removed, painted over or is otherwise not legible, the tool shall be removed from service.
3. Any project specific requirements for this section are listed here.
 - None

4. Electrical Systems

1. Electrical systems shall be inspected and maintained.
2. All equipment shall have positive indication of "ON" (energized) and "OFF" (de-energized) clearly labeled on the device/equipment.
3. Electrical equipment shall not be opened, repaired or otherwise handled until it is de-energized, locked, and tagged according to the Lockout/tagout program.
4. Perform a voltage test on de-energized equipment prior to performing any work.
5. All metal panels, boxes, covers, conduit, etc. that are part of the electrical system shall be grounded.
6. All electrical equipment exposed to flammable gases or vapors, combustible dust, or ignitable fibers shall be explosion-proof.
7. Circuit breakers shall be labeled to show what they control.
8. All circuit breaker panels shall be labeled to show what voltage, phase and feeder source they contain and shall be marked in accordance with ANSI standards and National Electrical Code (NEC).
9. All cables exiting metal panels or boxes shall be secured with stress relieving clamps.
10. Waterproof clamps shall be used as necessary.
11. All splices shall be enclosed inside an approved box. Repairs shall be sealed with epoxy or vulcanizing kits; tape alone is not acceptable.
12. All energized panels shall be equipped with a lockable door so that power can be turned off and locked out for repairs.
13. Adequate space is needed to open the door at least ninety (90) degrees.

Clearance will be according to the table below.

Nominal voltage to ground	Minimum clear distance for conditions ¹			
	(A)	(B)	(C)	
	Feet ²	Feet ²	Feet ²	
0-150	3	3	3	
151-600	3	3 ½	4	
¹ Conditions (A), (B), (C) are as follows: (A) Exposed live parts on one side and no live or grounded parts on the other side of the working space, or exposed live parts on both sides effectively guarded by insulating material. Insulated wire or insulated busbars operating at no more than 300 volts are not considered live parts. (B) Exposed live parts on one side and grounded parts on the other side. (C) Exposed live parts on both sides of the workplace [not guarded as provided in condition (A)] with the operator between.				
² For all international systems of units (SI): one foot = 0.3048 meters				

14. Any project specific requirements for this section will be listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

Training Links

- [Electrical Safety \[Competent Person\] - Electrical Safety \[Competent Person\]](#)

Potential Related Safety, Health and/or Environmental Aspects

- Confined and Enclosed Spaces
- Demolition

- Dropped Object Protection
- Excavation and Trenching
- Fall Prevention and Protection
- Fire Prevention and Protection
- Housekeeping
- Illumination - Project Lighting
- Lockout Tagout
- Material Handling and Storage
- Mobile Elevated Work Platforms
- Motor Vehicles and Mechanized Equipment
- Tools - Hand and Power
- Welding and Cutting



Excavation and Trenching

Objective

The purpose of this program is to protect against the hazards associated with trenching and excavation operations.

Legal and Other Requirements

Federal, State, Local Regulations

- [California Code of Regulations, Title 8, Subchapter 4, Article 6 §1539-1547](#)
- [OSHA 29 CFR 1926.650 - Scope, application, and definitions applicable to this subpart](#)
- [OSHA Technical Manual \(OTM\) Section V: Chapter 2](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 10 §1590-1596](#)
- [OSHA 29 CFR 1926.652 - Requirements for protective systems](#)
- [OSHA 29 CFR 1926.651 - Specific Excavation Requirements](#)

Skanska/Client Requirements

- None

Procedure

1. General Requirements

1. A competent person must supervise all trenching and excavations and be onsite at all times during trenching and excavation operations. Employees may not work in any excavation that the competent person deems unsafe. The competent person shall inspect all excavations each shift and when conditions of the excavation have changed, in accordance with Skanska's Excavation Checklist.
2. A Dig Permit is required to be completed prior to any ground intrusive activities (trenching and/or excavation, etc.) to prevent underground utility strikes. A Dig Permit shall be completed and attached to the CWP for the ground intrusive operations.
3. Review utility drawings and contact "one call" or other entities to determine which utilities may be encountered during excavation work.
 - If damage occurs to any line, terminate work and contact the utility owner. Work may only proceed after the utility company and project management give authorization.
 - When approaching the estimated location of the underground installation, use hand digging or alternative safe method.
 - While the excavation is open, protect, support or remove underground installations as necessary to safeguard employees and the utility.
4. Provide adequate barriers around the perimeter of all excavations.
5. Employees must stand away from any vehicle being loaded or unloaded to avoid being struck by spillage or falling materials. Employees will not be under any loads handled by equipment.
6. Keep all spoil piles a minimum of two (2) feet from the edge of the excavation, or detain spoils using a sufficient retaining device.
7. Provide a stairway, ramp, or ladder, in all trench excavations four (4) feet or more in depth. The maximum travel distance to the point of access must be less than 25 feet.
 - When a ramp is used, the employee must be able to exit the excavation upright without having to scale the slope.
 - If structural ramps are used, the competent person must design the ramp. If the ramp is for vehicle use, the competent person must be qualified in structural design. All structural members of ramps and runways shall be of uniform thickness.
8. Scale all excavations to remove loose material that could pose a hazard by falling or rolling into the excavation.
9. Where oxygen deficiency (less than 19.5 percent oxygen) or a hazardous atmosphere exists or could reasonably be expected to exist in an excavation greater than four (4) feet deep, test the atmospheres in the excavation before entry, and do the following:
 - Use a ventilation system to be monitored by the competent person.
 - Make emergency rescue equipment available.
10. Employees will not work in excavations in which there is accumulated water or water is accumulating. Employees may re-enter the excavation after the water has been removed and the competent person has inspected and approved the

excavation.

11. Remove or support surface encumbrances such as signs, poles, and foundations to protect employees from the hazards they pose.
12. Shore, brace, or underpin adjacent structures such as buildings, sidewalks, pavement, etc. as required. Do not excavate below footings or foundations unless an appropriate shoring system designed by a professional engineer is in place.
13. Provide proper guardrails at walkways over excavations.
14. Any project specific requirements for this section are listed here.
 - None

2. Soil

1. Consider all soil Type C until otherwise determined by a competent person.
2. Perform a visual test by observing the soil during excavation specifically looking for cohesiveness, cracks, layered systems, surface water, vibration, other existing underground structures, etc., that can affect the stability of the excavation. In addition to the visual test, perform a plasticity, dry strength, thumb penetration or pocket penetrometer test to determine the soil classification:

Stable Rock	<ul style="list-style-type: none"> ■ Natural solid material ■ Can be excavated with vertical sides remaining intact
Type A	<ul style="list-style-type: none"> ■ Highly cohesive soil ■ Unconfined compressive strength 1.5 tons per square foot (tsf) or greater ■ Contains significant clay content of is a cemented soil
Type B	<ul style="list-style-type: none"> ■ Less cohesive than type A ■ Unconfined compressive strength between 0.5 tsf and 1.5 tsf ■ Can include certain angular gravel and previously disturbed soils that are well compacted
Type C	<ul style="list-style-type: none"> ■ Little or no cohesive properties ■ Unconfined compressive strength less than 0.5 tsf ■ Includes mostly granular soil

3. Any project specific requirements for this section are listed here.
 - None

3. Protective Systems



1. At a minimum, trenches five (5) feet deep or greater must have a protective system, or be properly sloped or benched in accordance with the table below:

Maximum Allowable Slopes		
Stable Rock	Vertical	90 Degrees
Type A	$\frac{3}{4}$ h : 1 v	53 Degrees
Type B	1 h : 1 v	45 Degrees
Type C	1 $\frac{1}{2}$ h : 1 v	34 Degrees

- Trenches less than five (5) feet in depth may require protective systems, sloping, or benching depending on soil conditions and/or activities.

2. If a protective system is used, the below requirements must be met:
 - The protective system must be designed by a registered professional engineer or be a commercially available system.
 - Protective systems designed by a registered professional engineer must include sizes, types and configurations of the materials, and be in written form and properly stamped. Keep at least one copy at the jobsite.
 - Material used for the protective systems must be free from damage that may impair their function, and used per manufacturer's recommendations. Keep manufacturer's data sheet available at the jobsite.
 - Install and remove support systems in a manner that protects employees. Before temporary removal of individual members begins, take additional precautions to ensure the safety of employees, such as installing other structural members to carry the loads imposed on the support system.
 - Begin removal at the bottom of excavation and progress from there. Backfilling will progress together with the removal of support systems from excavations. Do not excavate more than two (2) feet below the bottom member of a support system unless it is so designed.
3. If timber or aluminum shoring is used, use it in accordance with specifications and manufacturer's recommendations. Keep all manufacturer's data at the jobsite. Deviations will only be allowed with the manufacturer's written approval.
4. If shield systems are used, install them in a manner to restrict lateral or other hazardous movement of the shield in the event of the application of sudden lateral loads. Do not excavate more than two (2) feet below the bottom of a shield unless it is so designed.
 1. Protect employees from the hazard of cave-ins when entering or exiting the areas protected by shields, and do not allow them in shields when shields are being installed, removed or moved vertically.
5. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- [Dig Permit SKANSKA Final - Dig Permit SKANSKA Final](#)
- [Excavation Checklist - Excavation Checklist](#)

Applicable Training

Training Links

- [Excavations Trenches and Shoring \[Competent Person\] - Excavations Trenches and Shoring \[Competent Person\]](#)

Potential Related Safety, Health and/or Environmental Aspects

- Asbestos Inclusive of Naturally Occuring Asbestos
- Community Impacts Transportation, Traffic Circulation & Economic
- Community Impacts Utilities
- Concrete and Masonry
- Demolition
- Dropped Object Protection
- Fall Prevention and Protection
- Fire Prevention and Protection
- Heat and Cold Related Illness
- Heavy Metals (Lead, Arsenic, Cadmium, Hexavalent Chromium)
- Housekeeping
- Illumination - Project Lighting
- Inclement Weather and Lightning
- Infectious Disease Prevention and Response
- Material Handling and Storage
- Materials and Waste Management
- Motor Vehicles and Mechanized Equipment
- Noise Exposure
- Outdoor Air Quality
- Pile Driving
- Polychlorinated Biphenyls - PCBs
- Respiratory Protection

- Rigging
- Sanitation
- Signs, Signals and Barricades
- Spills and Leaks
- Stairways and Ladders
- Tools - Hand and Power
- Water Impacts
- Welding and Cutting



Fall Prevention and Protection

Objective

The purpose of this program is to develop, implement, enforce and maintain 100 percent continuous fall protection for employees who are exposed to potential fall hazards, based on risk assessment.

Legal and Other Requirements

Federal, State, Local Regulations

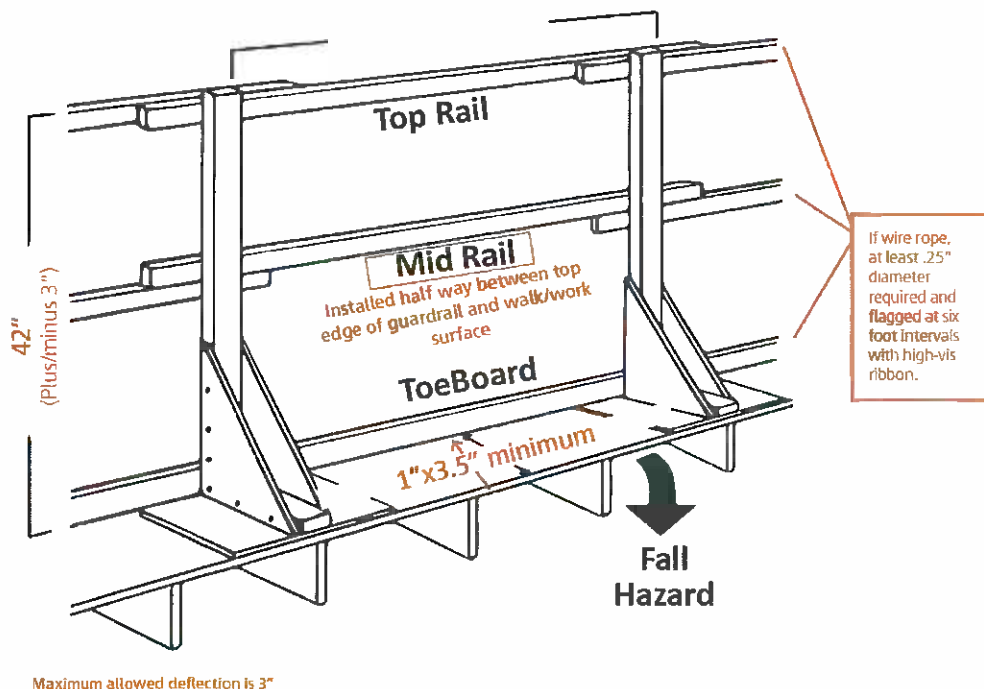
- [California Code of Regulations, Title 8, Subchapter 4, Article 16 §1620-1621](#)
- [OSHA 29 CFR 1926.502 Subpart M - Fall Protection - Fall protection systems criteria and practices](#)
- [OSHA 29 CFR 1926.501 Subpart M - Fall Protection - Duty to have fall protection](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 19 §1632-1633](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 31 §1733-1737](#)
- [OSHA 29 CFR 1926.500 Subpart M - Fall Protection - Scope, application, and definitions applicable to this subpart](#)
- [OSHA 29 CFR 1926.959 Subpart V - Electric Power Transmission and Distribution - Electric Power Transmission and Distribution](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 24 §1669-1672](#)
- [OSHA 29 CFR 1926.503 Subpart M - Fall Protection - Training requirements](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 30 §1723-1731](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 29 §1709-1722.1](#)

Skanska/Client Requirements

- None

Procedure

1. All employees will be one hundred percent (100%) protected while working six (6) feet or higher off the ground or when hazards below six (6) feet dictate enforcement at a lesser height. This policy will apply to all trades, even when OSHA allows for exceptions. In the event where local statutes require fall protection at less than six (6) feet, the more stringent standard will apply.
2. Guardrail systems



1. Standard rail will consist of:
 - Top rail – must be not less than 42 inches or more than 45 inches in height measured from the upper surface of the top rail to the floor, platform, runway or ramp. When wire rope is selected it will be at least one-quarter inch diameter and will be flagged at six (6) foot intervals with high visibility material such as "Caution" ribbon or equivalent.
 - Mid-rails – must be installed halfway between top edge of guardrail and the walking/working surface.
2. Toe-board – must be a minimum of one by three-and-a-half inches.
3. A maximum allowable deflection in the system will not exceed two (2) inches.
4. When pipe railings are used, posts, top rails and intermediate railings will be at least one and a half inches nominal diameter (schedule 40 pipe) with posts spaced not more than eight (8) feet apart on center.
5. When structural steel railings are used, posts, top rails and intermediate rails will be at least two (2) inches by two (2) inches by three-eighths (3/8) inch angles, with posts spaced not more than eight (8) feet apart on center.
6. Guardrail systems will be capable of withstanding, without failure, a force of at least two hundred (200) pounds for the top rail, and one hundred fifty (150) pounds for the mid-rail, applied within two (2) inches of the top edge, in any outward or downward direction, at any point along the top edge.
7. Guardrail systems will be surfaced to prevent injury to an employee from punctures or lacerations and to prevent snagging of clothing.
8. Duplex nails are not allowed in the construction of guardrails.
9. When guardrail systems are used at access ways and hoisting areas, a chain, gate or removable guardrail section will be installed.
10. When guardrail systems are used around holes that are used as points of access (such as ladder ways), they will be provided with a gate, or be offset so that a person cannot walk directly into the hole.
11. Guardrail systems used on ramps and runways will be erected along each unprotected side or edge.
12. When guardrail systems are used around holes, they will be erected on all unprotected sides or edges of the hole. Holes used for the passage of materials will have no more than two sides provided with removable guardrail sections. When the hole is not in use, provide a guardrail system along unprotected edges or close it over with a cover. If a component of a guardrail system must be removed, additional controls shall be identified in the Construction Work Plan and operation completed under the supervision of the competent person. The competent person is responsible for immediately replacing and restoring the protective system upon completion of the task. The project team may choose to utilize the Skanska Guardrail Removal Permit.
13. Any project specific requirements for this section are listed here.
 - None

3. Safety Nets

1. Safety nets will never be relied upon as a sole form of fall protection.
2. Nets are designed to provide fall arrest under or around an elevated surface, such as a bridge or steel structure.
3. The following criteria must be met when using nets:
 - Place nets as close to the work as possible, and not more than thirty (30) feet below the work surface.
 - Install nets so an object does not contact any lower surface when dropped.
 - Extend the net outward from the outermost projection of the work surface as follows:

Distance Below Work Surface	Projection Distance
Up to 5 feet	8 feet
5 to 10 feet	10 feet
Over 10 feet	13 feet
4. Nets will be drop-tested, using a four hundred (400)-pound bag of sand dropped from forty two (42) inches above the highest working surface that employees would be exposed to a fall, on the following occasions:
 - Immediately after installation
 - Prior to beginning work in the area
 - After relocation
 - Following any repairs
 - At six-month intervals, if left in one place
5. A copy of the test results will be maintained at the jobsite.
6. If it is unreasonable to perform a test drop, a competent person may certify its compliance with the standards.
7. The compliance certificate must include the identification of the net and its installation, date it achieved compliance and the signature of the competent person. This certification must be located at the jobsite.
8. Mesh openings will not exceed six (6) inches by six (6) inches.
9. Remove material that may have fallen into the net as soon as possible.
10. A border rope for webbing capable of withstanding a minimum breaking strength of five thousand (5,000) pounds must

be used.

11. Connections will be as strong as the integral net components and not spaced greater than six inches apart.
12. Visually inspect all nets on a weekly basis for wear, damage or other deterioration, and after any occurrence that could affect the integrity of the net.
13. Remove all defective nets immediately from service.
14. Any project specific requirements for this section are listed here.
 - None

4. Warning Line System

1. When a guardrail system is not feasible, a warning line system can be used for working on elevated slabs or roof with approval via the variance request procedure.
2. Warning lines should be set up around the work and be a minimum of ten (10) feet back from any unprotected or leading edge.
3. Lines should be thirty six (36) inches high and flagged every six (6) feet to ensure visibility. They should withstand a minimal side load to avoid tipping over.
4. Post signage in the area.
5. Establish a delineated path leading to the work area.
6. Any project specific requirements for this section are listed here.
 - None

5. Safety Monitoring System

1. A safety monitor system is not approved at any Skanska project.

6. Covers

1. All holes two inches or greater in a floor, roof or other walking/working surface shall be covered and labeled "Hole" or "Hole Cover".
2. 6.1.1. Covers will be placed on holes in walking/working or road surfaces that present fall hazards. Covers shall be secured in place to prevent accidental removal or displacement, and shall bear a pressure sensitized, painted, or stenciled sign with legible letters not less than one inch high, stating "Opening - Do Not Remove." Markings of chalk or heel shall not be used. Covers will be secured with nails or a chocking device.
3. Covers will be capable of supporting, without failure, at least twice the maximum weight of employees, materials and equipment.
4. Holes in roadways will be capable of supporting, without failure, at least twice the maximum axle load of the largest vehicle expected to cross over the cover based on an engineered design.
5. Any project specific requirements for this section are listed here.
 - None

7. Personal Fall Arrest Systems

General Requirements

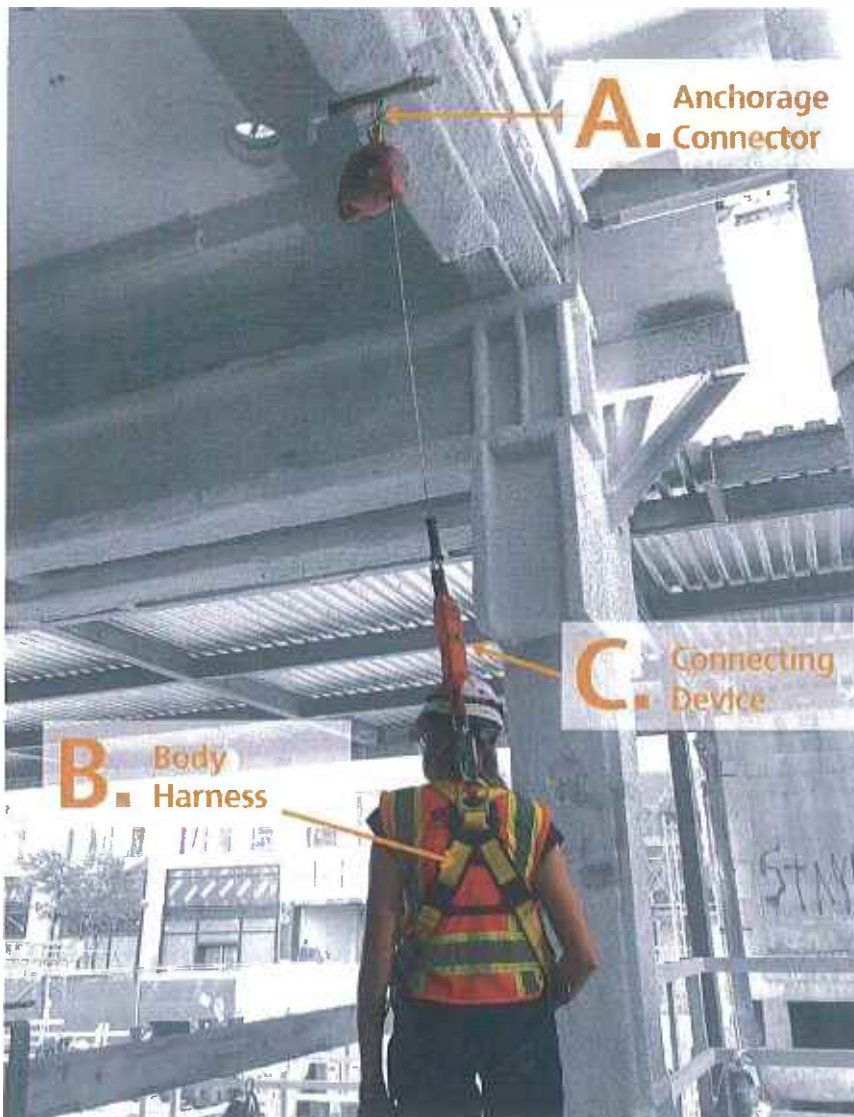
1. Inspect all personal fall arrest equipment prior to use.
2. Remove any damaged, defective, or worn equipment from service.
3. In the event of a fall, employees will self-rescue or be rescued in accordance with established rescue procedure.
4. Immediately remove personal fall arrest systems and components subjected to impact loading.
5. Any project specific requirements for this section are listed here.
 - None

8. Full Body Harness/Self-Retracting Lifelines or "Connectors"

1. Use an approved full body harness as part of the personal fall arrest system. It is required to utilize trauma straps with full body harnesses. The only exception is for linemen performing power transmission work (refer to OSHA 1926.959 for specific requirements).
2. Decelerating lanyards will not be permitted. Self-retracting lifelines (SRL) with decelerating lanyards are acceptable.
3. All connectors shall be SRLs. Select the appropriate SRL according to the task/work area (i.e., leading edge work) with a locking snap hook with a gate rated for 3,600 pounds.
4. All SRL's will be equipped with a locking snap hook with a gate rated for 3,600 pounds to prevent disengagement. The gate shall remain locked until engaged for connection or disconnection.
5. Self-retracting lifelines will be inspected prior to use by the user.
6. The anchorage point must be able to withstand a minimum load of 5,000 pounds per person.
7. The anchorage point should ideally be located above the user's head in order to prevent "swing" type falls.
8. The D-ring of the body harness will be located in the center of the wearer's back.

9. Any project specific requirements for this section are listed here.

- None



9. Horizontal/Vertical Lifelines

1. Design, installation and use of lifelines will be under the supervision of a qualified person and maintain a safety factor of at least two.
2. Lifeline systems will be engineered either by the manufacturer or a qualified engineer prior to use and should consider at a minimum:
 - The number of personnel connected to the lifeline
 - The size of wire rope to be used will be a minimum seven (7) strands by nineteen (19) wires per strand and three-eighths (3/8) inch galvanized aircraft cable
 - One shock absorber shall be connected from the anchorage point (stanchion) to the wire rope and must provide adequate protection for two (2) people using self-retracting lifelines (deceleration) devices
 - Distance between anchorage points (slack)
 - Obstructions, permanent material, etc., which may cause injury in an event of a fall
3. Synthetic rope may only be used for vertical applications, unless an engineered system is approved for horizontal use. Store rope to protect against exposures to UV rays, extreme weather and abrasion activities. Certain types of work may also degrade the integrity of synthetic rope systems (e.g., hot work).
4. Ladder climbing safety devices and rope grabs that require hand manipulation are unacceptable.
 - Where a self-retracting lanyard is incorporated in the system, the device shall be located overhead to limit fall distance.
5. The use of knot(s) anywhere in a horizontal/vertical lifeline is prohibited.
6. Any project specific requirements for this section are listed here.
 - None

10. Positioning Devices

1. At no time will a positioning device be used without fall protection via full-body harness, lanyard and anchorage point.
2. Positioning devices will be rigged such that an employee cannot free fall more than two (2) feet and secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or three thousand (3,000) pounds (13.3 kN), whichever is greater.
3. Connectors will be drop forged, pressed or formed steel or made of equivalent materials.
4. Any project specific requirements for this section are listed here.
 - None

11. Fall Protection Plan

The fall protection identified in the Construction Work Plan shall:

1. Identify all fall hazards in the work area.
2. Describe the method of fall arrest or fall restraint to be provided.
3. Describe the proper procedures for the assembly, maintenance, inspection and disassembly of the fall protection system to be used.
4. Describe the proper procedures for the handling, storage and securing of tools and materials.
5. Describe the method of providing overhead protection for workers exposed below overhead work.
6. Describe the method(s) for prompt, safe removal of injured workers.
7. Be available on the job site for inspection
8. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- [Guard Rail Removal Permit - Guard Rail Removal Permit](#)
- [SRL Inspection - SRL Inspection](#)
- Site Specific Fall Protection Plan

Applicable Training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Concrete and Masonry
- Confined and Enclosed Spaces
- Cranes and Cranes Rigging
- Demolition
- Dropped Object Protection
- Fall Prevention and Protection
- Housekeeping
- Inclement Weather and Lightning
- Material Handling and Storage
- Rigging
- Stairways and Ladders
- Steel Erection
- Temporary Works
- Tools - Hand and Power



Fire Prevention and Protection

Objective

The purpose of this program is to establish procedures for jobsite fire protection and prevention measures. The company will take all necessary measures to protect employees from fire hazards and the hazards associated with flammable liquid storage, temporary heating devices, liquid propane (LP) gas and propane.

Legal and Other Requirements

Federal, State, Local Regulations

- [California Code of Regulations, Title 8, Subchapter 7, Group 16 §5139-5223](#)
- [OSHA 29 CFR 1926.150 Subpart F - Fire Protection and Prevention - Fire Protection](#)
- [OSHA 29 CFR 1926.153 Subpart F - Fire Protection and Prevention - Liquefied petroleum gas \(L.P-Gas\).](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 20 §5415-5629](#)
- [OSHA 29 CFR 1926.152 Subpart F - Fire Protection and Prevention - Flammable liquids](#)
- [Standard methods of Fire Tests of Building Construction and Materials, NFPA 251-1995](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 36 §1920-1938](#)
- [OSHA 29 CFR 1926.151 Subpart F - Fire Protection and Prevention - Fire Prevention](#)
- [OSHA 29 CFR 1926.155 Subpart F - Fire Protection and Prevention - Definitions applicable to this subpart](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 27 §6150-6184](#)
- [OSHA 29 CFR 1926.154 Subpart F - Fire Protection and Prevention - Temporary heating devices](#)

Skanska/Client Requirements

- None

Procedure

1. Fire Extinguishers

1. All fire extinguishers will be ABC type, except for the two and one half (2 ½) point extinguishers kept in project vehicles such as pick-up trucks which will be type BC.
2. Inspect extinguishers monthly for damage, leakage, discharge and block accessibility, and document inspections on metal tags or equivalent.
3. Mount, label and display fire extinguishers in planned locations of building projects (e.g., stair cases, ingress and egress points, etc.) every three thousand (3,000) square feet and within one hundred (100) feet.
4. Keep additional fire extinguishers readily available during any hot work operation.
5. Install a twenty (20) pound ABC type extinguisher on all heavy equipment, trucks (other than pick-ups), connex boxes, welders, compressors and asphalt/batch plants.
6. Mount two extinguishers to all fuel and lube trucks such that:
 - They will not both be made inaccessible by a localized fire.
 - They will not be knocked off or clogged with mud or ice.
 - They will not become blocked by loose equipment if they are mounted inside a cabinet. Put a sign on the cabinet to indicate that a fire extinguisher is located inside.
7. Employees shall be trained on the proper use of fire extinguishers.
8. Any project specific requirements for this section are listed here.
 - None

2. Flammable Liquid Storage

General Requirements

1. Smoking is not permitted in any flammable liquid storage areas.
2. Keep an inventory for all flammable or combustible storage areas.
3. Use only approved containers and portable tanks for storage and handling of flammable and combustible liquids.
4. Do not store flammable or combustible liquids in areas used for exits, stairways or those normally used for the safe passage of people.
5. Store waste containers on a firm working base that is impervious and at least four (4) inches thick. Maintain a berm, or

similar, of at least six (6) inches around the base.

6. The storage structure must have a secondary containment system that is capable of holding at least twenty percent (20%) of the total capacity of all containers or one hundred percent (100%) of the capacity of the largest container or tank, whichever is greater.
7. Any project specific requirements for this section are listed here.
 - None

3. Indoor Storage

1. Flammable liquids or other hazardous materials should be stored outdoors or in small detached structures. If flammable liquids or other hazardous material are stored indoors, in buildings, shops and ventilated connex boxes, the requirements of this section must be met.
2. Design inside storage rooms per Fire Tests of Building Construction and Materials, NFPA 251-1995. In addition, the room must:
 - Be liquid tight, so that liquid cannot leak through the walls and floors
 - Provide adequate fire resistance to adjoining building areas
 - Have non-combustible openings to other rooms
 - Have liquid tight raised sill or ramps that are at least six (6) inches in height, make the floor in the storage area six (6) inches lower than the floors in the adjoining rooms
3. Locate at least one portable twenty (20) pound ABC extinguisher no more than ten (10) feet outside of the door opening into any room used for flammable or combustible liquid storage.
4. Use lighting fixtures that are explosion proof and ventilate general storage.
5. No more than twenty five (25) gallons of flammable and combustible chemicals shall be stored in a room outside of the flammable chemical storage cabinet. No more than sixty (60) gallons of Category 1, 2 and/or 3 flammable liquids, or one hundred and twenty (120) gallons of Category 4 flammable liquids can be stored inside in a storage cabinet. Liquid petroleum gas shall not be stored within a building.

Classifying Flammable Liquids	
Category 1	A flashpoint below 73.4ℱ (23ℳ) and boiling point at or below 95ℳ (35ℳ)
Category 2	A flashpoint below 73.4ℱ (23ℳ) and boiling point above 95ℳ (35ℳ)
Category 3	A flashpoint at or above 73.4ℱ (23ℳ) and at or below 140ℳ (60ℳ)
Category 4	A flashpoint at or above 140ℳ (60ℳ) and at or below 199.4ℳ (93ℳ)

6. Label cabinets "Flammable – Keep Away from Open Flames."
7. Transfers of flammable chemicals inside a building must be done in the flammable chemical storage area, or in another room in the building that is separated from other operations, protected by walls with adequate fire resistance and provided with adequate ventilation.
8. Any project specific requirements for this section are listed here.
 - None

4. Outdoor Storage

1. Locate at least one portable fire extinguisher not less than twenty five (25) feet, nor more than seventy five (75) feet, from any flammable liquid storage area located outside.
2. Storage of containers (not more than sixty (60) gallons each) shall not exceed eleven hundred (1,100) gallons in any one pile or area. Piles or groups of containers shall be separated by a five (5) foot clearance and shall not be nearer than twenty (20) feet to a building.
3. Maintain at least ten (10) feet of distance between the storage area and any street, alley or public way.
4. Maintain a twelve (12) foot wide access way within two hundred (200) feet of each storage area to permit approach of fire control apparatus.
5. Grade the storage area to divert possible spills away from buildings or other exposures, or surround them by a curb at least six (6) inches high. When curbs or dikes are used, make provisions for draining off accumulations of ground or rainwater or spills of flammable or combustible liquids. Terminate drains at a safe location and keep them accessible to operation under fire conditions.
6. An outside storage building that is located fifty (50) feet or less from another building or adjoining property line must have a two-hour rated fire wall.
7. Secure storage areas against tampering by trespassers.
8. Keep storage areas and a twenty five (25) foot perimeter around the storage area, free of weeds, debris or other combustible materials.
9. When feasible, provide a covering over all containers.
10. Keep lighting fixtures used in outdoor flammable chemical storage areas at least eight (8) feet above the containers. If not feasible, use an explosion proof lighting and electrical system.
11. Any project specific requirements for this section are listed here.
 - None

5. Outdoor Portable Tank Storage

1. Do not store portable tanks within twenty (20) feet of any building.
2. Maintain a minimum five (5) foot clearance between portable tanks with a combined capacity of two thousand two hundred (2,200) gallons, and around a single portable tank exceeding one thousand one hundred (1,100) gallons.
3. Maintain a twelve (12) foot wide access way within two hundred (200) feet of each storage area to permit approach of fire control apparatus.
4. Keep storage areas and a twenty five (25) foot perimeter around the storage area, free of weeds, debris, or other combustible materials.
5. Locate at least one portable fire extinguisher not less than twenty five (25) feet, nor more than seventy five (75) feet, from any flammable liquid storage area located outside.
6. Label each tank "(Contents of Tank) – Flammable, No Smoking."
7. Any project specific requirements for this section are listed here.
 - None

6. Temporary Heating Devices

General Requirements

1. Keep combustible materials at least ten (10) feet away from heating devices.
2. Fire barrels are not allowed on any project.
3. Clothes, gloves, shoes, etc., cannot be placed on, overhead or immediately next to a heater.
4. Never store compressed gas (acetylene, propane, etc.), gasoline, diesel fuel, paint thinner or any flammable liquid in a trailer or room where a temporary heating device is in use.
5. Do not use paint or thinner in areas where a heater may ignite the explosive.
6. Maintain escape routes in case a heater malfunctions.
7. Keep fire extinguishers readily available and fully charged.
8. Inspect the entire heating unit frequently for any defects, leaks or worn parts. Make repairs immediately.
9. Any project specific requirements for this section are listed here.
 - None

7. Combustion Heaters

1. Read manufacturer's instructions before lighting a heater.
2. Provide adequate ventilation and monitor the area for oxygen and carbon monoxide levels.
3. Each unit shall be equipped with an automatic shut-off valve to stop the flow of gas or oil any time the flame goes out.
4. Refuel only after turning off the heater and allowing it to become cool to the touch.
5. Safety cans with funnels or spouts are required for all flammable liquids, including diesel fuel.
6. Any project specific requirements for this section are listed here.
 - None

8. Electric Heaters

1. Properly ground all electric heaters and use them in a dry area to prevent electric shock.
2. An automatic shut-off device must be built into the unit to prevent fire in the event the unit is tipped over.
3. Keep electric cords out of mud, snow, ice and water.
4. Any project specific requirements for this section are listed here.
 - None

9. Liquefied Petroleum Gas and Propane Requirements

1. Each system will have containers, valves, manifolds, assemblies and regulators of an approved type and in good repair.
2. Connect valves and fittings with a rated working pressure of at least two hundred fifty (250) P.S.I.G. directly to the container.
3. Every container and vaporizer will be provided with one or more approved safety relief valves or devices. These valves will be arranged to afford free venting to the outer air.
4. Cylinder connectors will be provided with an excess flow valve to minimize the flow of gas in the event the fuel lines become ruptured.
5. Any project specific requirements for this section are listed here.
 - None

10. Storage

1. Store containers in cages upright on firm foundations or otherwise firmly secured.
2. Do not store propane cylinders within buildings or connex boxes.
3. Where propane is stored, provide at least an approved portable twenty (20) pound ABC fire extinguisher.
4. Do not store propane within twenty five (25) feet of the nearest building.

5. Clearly label storage areas/cages "Flammable Gas—No Open Flames."
6. Any project specific requirements for this section are listed here.
 - None

11. Use

1. Locate containers, regulating equipment, manifolds, pipe, tubing and hose to minimize exposure to high temperatures or physical damage.
2. For temporary heating, locate heaters six (6) feet from any LP gas container. Do not direct blower and radiant type heaters toward any LP gas container within twenty (20) feet.
3. Arrange valves in the assembly of multiple container systems so that containers can be replaced without shutting off the flow of gas in the system.
4. Separate propane and ignition sources, such as compressors, light plants, etc., at least twenty five (25) feet.
5. Remove combustible material such as weeds and long dry grass within ten (10) feet of the container.
6. Use a soap and water solution to detect leaks and correct leaks immediately.
7. Do not weld on containers or tanks.
8. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- [Hot Work Permit Re - Hot Work Permit](#)

Applicable Training

Training Links

- [Fire Safety \[Competent Person\] - Fire Safety \[Competent Person\]](#)
- [Hot Work \[Competent Person\] - Hot Work \[Competent Person\]](#)

Potential Related Safety, Health and/or Environmental Aspects

- Fire Prevention and Protection



Housekeeping

Objective

The purpose of this program is to establish guidelines to protect employees from the hazards associated with poor housekeeping. This program details general housekeeping and the handling of waste and debris.

Legal and Other Requirements

Federal, State, Local Regulations

- [California Code of Regulations, Title 8, Subchapter 4, Article 18 §1629-1631](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 7 §1548-1549](#)
- [OSHA 29 CFR 1926.25 Subpart C - General Safety and Health Provisions - Housekeeping](#)
- [OSHA 29 CFR 1926.252 Subpart H - Materials Handling, Storage, Use, and Disposal - Disposal of waste materials](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 3 §1513](#)

Skanska/Client Requirements

- None

Procedure

1. General Housekeeping

1. Work areas will be kept in an orderly manner at all times and all waste will be removed by the end of the shift.
2. Trash receptacles will be provided throughout each jobsite with safe means to facilitate removal and will be emptied regularly to prevent overflow.
3. Any extra materials from activities will be returned to storage facilities at the end of each shift.
4. Oily rags will be kept and disposed of separately in metal containers with tops.
5. All scrap lumber, forms and crates will be kept cleared from work areas, passageways, stairs, in and around buildings or other structures.
6. All nails will be bent or removed from lumber or other material.
7. Receptacles will have self-closing or securable lids to prevent pest and rodent infestation.
8. A trash receptacle will be placed in all designated break areas.
9. All trailers and office space will be kept clean at all times.
10. Any project specific requirements for this section are listed here.
 - None

2. Trash Chute

1. When materials must be dropped more than twenty (20) feet to any point lying outside the exterior walls of a structure, an enclosed chute of wood or equivalent material will be used as a ramp. For the purpose of this subsection, an enclosed chute is a slide, closed in on all sides, through which material is moved from a high place to a lower one.
2. When debris is dropped through holes or openings in the floor without the use of a chute, the area onto which the material is dropped will be completely enclosed with barricades.
3. Enclosure requirements:
 - Barricades must be at least forty two (42) inches high and at least six (6) feet back from the projected edge of the opening above.
 - Wind velocity and its potential for carrying materials should be calculated into the disposal plan.
 - Signs warning of the hazard of falling materials should be posted at each level.
 - A spotter may be posted at the area of retrieval to keep area clear of unnecessary traffic.
 - Debris will not be removed from the disposal site until all handling ceases from above.
4. A dumpster or truck will be maintained at the bottom of the chute at all times.
5. A physical barrier will be maintained around the trash receptacle at the bottom of the chute.
6. "Caution" signs will be posted on the barrier to warn employees of potential hazards.
7. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- None



Illumination - Project Lighting

Objective

Ensure that adequate lighting is provided during all work operations. In addition to providing necessary illumination for our workers, ensure that adequate lighting is provided for vehicular and pedestrian traffic.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.56 Subpart D - Occupational Health and Environmental Controls - Illumination](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 3 §1523](#)

Skanska/Client Requirements

- None

Procedure

1. Fixtures:

1. Fixtures are to be rated for the project environment and/or classification.
2. Fixtures are recommended to be made out of metal or high-strength plastics with suitable diffusers.
3. Fixture guards are required to reduce breakage.
4. Fixtures are to be fastened to a solid surface or suspended with proper cable or hangers to support the weight of the fixture, wire and environmental conditions (e.g., ice load).
5. All fixtures are to be UL listed for the application.
6. Stringers are discouraged and may only be used when allowed by local jurisdiction.
7. Any stringers (e.g., streamer) shall have guards/cages of either plastic or metal.
8. Team shall consider using energy efficient lighting.
9. Any project specific requirements for this section are listed here.
 - None

2. Power Source

1. Power to all light fixtures shall have a dedicated circuit(s) designated for temporary lighting.
2. Egress signs will be on a separate circuit from general lighting.
3. A minimum of two (2) circuits will be required in a work area/floor.
4. All circuits will be clearly labeled to indicate that they are served at the source panel. Fixtures connected to 277/480VAC circuits will have a separate label indicating voltage.
5. Temporary power system shall be located in areas that do not interfere with construction activities (e.g., low hanging wires, wires on the floors, etc.).
6. Any project specific requirements for this section are listed here.
 - None

3. Task Lighting

1. Task lighting may be achieved for work activities utilizing commercially available fixtures/tripods.
2. All task lighting fixtures are to be UL listed for the application.
3. The use of halogen lamps for task lighting is acceptable, providing the fixture has tempered glass and a wire shield. Highly recommended to use high efficient fixtures.
4. Any project specific requirements for this section are listed here.
 - None

4. Lighting Levels

1. The minimum lighting levels will be in accordance with OSHA 1926.56 – Illumination.
2. Measurements will be made from a calibrated light meter either new out of box or calibrated per the manufacturer's requirements.
3. Any project specific requirements for this section are listed here.
 - None

5. General Requirements

1. Construction areas, ramps, runways, corridors, offices, shops and storage areas will be illuminated to the intensities at a minimum listed in the table below while any work is in progress.
2. Lighting plans will include additional fixtures to be installed when interior walls and elements constructed reduced the lighting levels.
3. At a minimum, lighting in stairways, hallways, egress paths and elevator lobbies shall be maintained at all times.
4. Any project specific requirements for this section are listed here.
 - None

6. Illumination Requirements

1. See the chart below:

Foot-Candles	Area of Operation	
5	General construction area lighting.	--
3	Concrete placement, excavation and waste areas, access ways, active storage areas, loading platforms, refueling and field maintenance areas.	--
5	Indoors: warehouses, corridors, hallways and exits.	--
5	Tunnels, shafts and general underground work areas, (Exception: minimum of 10-foot candles is required at tunnel and shaft heading during drilling, mucking and scaling. Bureau of Mines approved cap lights will be acceptable for use in the tunnel heading).	--
10	General Construction Work Plant and shops (e.g., batch plants, screening plants, mechanical and electrical equipment rooms, carpenter shops, rigging lofts and active store rooms, barracks or living quarters, locker or dressing rooms, mess halls, and indoor toilets and work rooms).	--
30	First aid stations, infirmaries and offices.	--

2. For areas or operations not covered above, refer to the American National Standard A11.1-1965, R1970, Practice for Industrial Lighting, for recommended values of illumination or local governing codes.
3. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- None



Inclement Weather and Lightning

Objective

To ensure that all employees are safe guarded from the occupational health and safety risks associated with inclement weather, including but not limited to: thunderstorms, lightning, hurricanes, and tornados. This program establishes safe work practices while preparing for and during severe weather events.

Legal and Other Requirements

Federal, State, Local Regulations

- None

Skanska/Client Requirements

- None

Procedure

General

- The project team shall conduct a thorough review of the project site and surrounding structures to determine locations acceptable for use as shelter and to review site egress procedures and routes.
- Severe weather responses shall be included in the project's Emergency Action Plan.
- In the event of inclement weather, the project team will monitor local weather reports and inform employees of the potential for impacts.
 - The following can be used to monitor for inclement weather and lightning: www.noaa.gov, portable lightning detectors, local radio or television stations, phone application, etc.
- Cranes and equipment and local legal restrictions shall follow the manufacture's requirements. When a crane is used, Skanska's crane policy shall be followed.
- Project leadership will make the decision to stop work as a result of inclement weather and determine the appropriate communication method. Examples: horn blast, mobile warning system, etc.
- Work shall not resume until project supervision communicates the all clear to resume suspended activities.
- At designated shelter locations, all personnel shall be accounted for before anyone may leave.
- Any project specific requirements for this section are listed here.
 - None

Potential Airborne Materials

- Materials that could possibly become airborne, ie plywood metal paneling etc. must be secured as to not become flying projectiles
- Any project specific requirements for this section are listed here.
 - None

Thunderstorms and Lightning

- When the nearest lightning strike is within 6 miles, all employees must secure equipment and seek shelter and not resume activities for 30 minutes.
 - Count the time between the lightning and the thunder—for each 5 seconds between, the lightning is 1 mile away. See table below.
 - Activate lightning safety plan at count of 30 or 6 miles away and don't resume activities for 30 minutes.

If thunder is heard...	The lightning is...
5 seconds after a flash	1 mile away
10 seconds after a flash	2 miles away
15 seconds after a flash	3 miles away

20 seconds after a flash	4 miles away
25 seconds after a flash	5 miles away
30 seconds after a flash	6 miles away
40 seconds after a flash	8 miles away
50 seconds after a flash	10 miles away

- If working inside of a structure is possible and the safety of the workers is not jeopardized, work may continue.
- Adequate shelter can be any large structure/building. Doors and windows should be closed, and individuals inside must avoid touching objects that penetrate from outside to inside (i.e., door handles, radio antennas, electrical circuits, etc.).
- Mobile equipment and vehicles can also be used as shelter as long as the cab is enclosed. Windows need to be shut and the person should avoid contact with objects that penetrate from inside to outside.
- Any project specific requirements for this section are listed here.
 - None

Hurricanes

- During severe weather, the project team will ensure that the site is secure for the protection of employees, the public, and nearby property.
- Protective action shall be taken with respect to each building/structure and equipment to prevent damage from water, wind, and debris.
- All loose construction materials, trailers, temporary building and equipment will be secured and/or moved to a protected location.
- Any project specific requirements for this section are listed here.
 - None

Tornadoes

- Secure all loose material or materials that can become displaced or airborne and prepare to lower crane booms.
- In the event of a tornado, personnel shall be signaled of the potential danger and moved to structurally protected areas. Personnel should be kept away from windows and glass during a tornado. Personnel should avoid waste piles or stacks of building materials as points of safe refuge.
- Office personnel should evacuate office trailers. If nothing else, seek shelters in ditches, storm drains, or heavy equipment.
- Any project specific requirements for this section are listed here.
 - None

Applicable Training

- None

Potential Related Safety, Health and/or Environmental Aspects

- None



Lockout Tagout

Objective

This section establishes a lockout/tagout procedure to ensure that workers are not exposed to the hazards from moving machinery or equipment and those hazards posed by an energized source (pneumatic, steam, hydraulic, electrical, chemical).

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1910.147 Subpart J - General Environmental Controls - The control of hazardous energy \(lockout/tagout\)](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 2, Article 7, §3314](#)
- [California Code of Regulations, Title 8, Subchapter 5 §2299-2989](#)
- [OSHA 29 CFR 1926.417 Subpart K - Electrical - Lockout and tagging of circuits](#)

Skanska/Client Requirements

- None

Procedure

1. Lockout/Tagout (LOTO) Procedure

Step 1 – Preparation/Planning

The project superintendent or designated qualified person (authorized employee) shall authorize the shutdown of the equipment after an evaluation of energy sources has been conducted.

1. This evaluation will include the type and magnitude of the energy, the hazards of the energy to be controlled and the method to control the energy. The LOTO evaluation form will be used to document this.
2. Using the LOTO Shutdown Equipment form to locate and identify all isolating devices to be sure which breaker, valve, switch or other energy isolating devices are required to lockout the equipment or system. All items to be isolated will be listed on the LOTO Shutdown Equipment form under "devices to be isolated."
3. Any project specific requirements for this section are listed here.
 - None

Step 2 – Shutdown

4. After preparation for shutdown requirements have been satisfied, the qualified person will review the LOTO Shutdown Equipment form for completeness and accuracy.
5. Any project specific requirements for this section are listed here.
 - None

2. Isolation

To isolate the equipment or system from its energy source, the following actions will be taken in sequence:

1. The qualified person lists all devices that must be locked out on the LOTO Shutdown Equipment form.
2. The qualified person will self-perform or assign another qualified person to physically operate all necessary devices to isolate the equipment or system (e.g., de-energizes, drain, vent, close valves, etc.)
3. Any project specific requirements for this section are listed here.
 - None

3. Lockout

To lockout the equipment, the following actions will be taken in sequence:

1. The qualified person will attach a locking device with a lock and "Do Not Operate" tag. All affected craft supervisors will verify the locks and tags have been hung.
2. The responsible manager and supervisor will initial the LOTO Shutdown Equipment form to verify the isolation is complete and that the key(s) will be maintained in or near the lockout office.
3. The key lock boxes or rods for the isolation lock(s) will be maintained in a predetermined, secure location. The qualified person will drop their key into the lock box. The clearance holder (craft supervisor) will add their lock to the lock box.
4. Each trained employee will be provided one lock for each piece of equipment being locked out and will have only one key for each. Each employee must lockout at the disconnect switch and/or valve themselves.
5. If more than one person is working on the same piece of equipment at the same time, each person is to have a personal lock on the lockout device. If the primary device will not accommodate each person's lock, multiple locking devices are

to be used.

6. When multiple locking devices are required, the shank of the devices must immobilize the equipment and must not merely be attached to the shank of another lock.
7. It may be necessary to lockout/tagout energy caused by gravity.
8. Where a keyed switch controls the ignition, the key will be placed in the "off" position, removed and the switch tagged with a "Do Not Start" tag.
9. If standard lockout switches are not available to immobilize the machinery, fuses should be pulled, terminals disconnected or other standard safety procedures applicable to the individual piece of equipment should be followed. "Do not start" tags will be placed at the starter button or switch.
10. In the event that tagging and removing the ignition key are not considered adequate protection, the battery cable that is connected to the starter will be removed at the battery end and tagged with a "Do Not Start" tag.
11. All other necessary precautions, such as opening or closing valves, changing valves, tagging and locking valves, installing blind flanges, etc., will be performed prior to starting the job.
12. No employee will remove another person's lock, lockout device or "Do Not Start" tag. Before leaving the job for another assignment, at shift end or upon completion of that job, each employee will personally remove their own lock.
13. If an employee fails to remove a lock, that employee will be required to return to remove it in person. If the individual is not available, the lock will not be removed until the foreman in charge has made a thorough check of the equipment. The foreman will verify and make certain the equipment is safe to operate.
14. Any project specific requirements for this section are listed here.
 - None

4. Verification of Isolation

Before starting work on the equipment or system, the following actions will be taken in the following sequence:

1. After ensuring that no personnel are exposed and having checked on all disconnected energy sources, start the equipment or system.
2. Return all controls to the "off" position after the test.
3. The qualified person will notify the clearance holder that the lockout procedure is complete. The clearance holder and affected employee(s) will then discuss the specific equipment or system to be worked on and understand all the system boundaries (i.e., location of all locks and tags).
4. The qualified person and clearance holder return to the control room to sign a Shutdown Equipment Form, signifying that the system is safe to work and isolation is complete.
5. The supervisor informs the affected employee(s) the system has been locked out and verified. The clearance holder drops their key in a separate lock box, all affected employee(s) lock back onto the box.
6. Work can now begin.
7. Any project specific requirements for this section are listed here.
 - None

5. Release from Lockout (Return to Service)

Before lockout devices are removed and energy is restored to the equipment or system, the following procedures will be followed and actions taken by the qualified person using a Shutdown Equipment Form:

1. After work on the equipment or system is complete, the area will be inspected to ensure nonessential items have been removed and equipment or system components are intact.
2. The work area will be checked to be sure that all employees have been safely positioned or removed.
3. All affected employee(s) will be notified that the lockout devices are to be removed.
4. The qualified person will use the Shutdown Equipment form as a guide to ensure that all isolation devices listed in the Shutdown Equipment form are properly accounted for. The following sequence is to occur:
 - The clearance holder verifies that all affected persons on the Shutdown Equipment form have signed the lockout form and show evidence of notification.
 - All craft supervisors who are listed on the Shutdown Equipment form will return to the lockout station and sign and date the LOTO Log.
 - The qualified person will remove all locks.
5. Should it become necessary to have a clearance released when the clearance holder (craft supervisor) is off duty, the procedure will be as follows:
 - The qualified person will contact the clearance holder and request a release of the clearance. If unable to do so, the clearance holder's supervisor will be notified.
 - The supervisor will check the work prior to authorizing the release. They will then sign the clearance holder's name and their own name on the appropriate line of the Shutdown Equipment form.
 - The same procedure applies and the Emergency Lock Removal Form must be used.
6. Any project specific requirements for this section are listed here.
 - None

6. Testing

The following steps will be taken to test equipment or systems under the clearance procedures:

1. Notify all craft supervisors on the Evaluation form that the system and/or isolated components are to be tested.
2. The qualified person along with the craft supervision will "walk down" the system to verify that component isolation/activation will not compromise the safety of personnel working in this area.
3. Each supervisor and the qualified person will sign the test release on the Evaluation form.
4. Affected employee(s) (listed on the Evaluation form) in the immediate area of the isolated test will be notified by verbal warning, barricades, warning tape, etc., or by other appropriate means.
5. Locks will be removed on the isolated component by the qualified person and the test will be completed.
6. If no further work is required, the craft supervisor will initial the Shutdown Equipment form, returning the device into service.
7. If further work needs to be done on the component, the isolation devices (locks, blind, etc.) will be reattached and this policy will resume from the beginning.
8. Any project specific requirements for this section are listed here.
 - None

7. Medium and High Voltage Lockout Procedures (600 + volts)

1. Work on high voltage lines or equipment requires safety precautions in addition to the standard lockout program and procedures.
2. Whenever any high voltage rooms or areas, such as collector ring compartments, are unlocked and de-energized, the following must happen:
 - All personnel working in or near these areas will place their lock and tag on the junction box that is disconnected or at the gate on the appropriate substation or disconnect box.
 - Multiple lockouts will be used so that each employee has a lock and tag in position.
3. Any project specific requirements for this section are listed here.
 - None

8. High Voltage Lines and Equipment

1. When a high voltage line is to be worked on, it must not be considered de-energized until a qualified person determines that the high voltage line has been de-energized and grounded.
2. Qualified persons will visually observe to:
 - Determine that the disconnecting devices on the high voltage circuit are in the open position.
 - Ensure that each ungrounded conductor of the high voltage circuit, upon which work is to be done, is properly connected to the system ground medium.
 - Ground the ungrounded conductor, which will be on the source side of the circuit on which work is to be performed. Grounding jumpers connected to the ground bus will be provided for this purpose. Grounding will be accomplished by the following procedure:
 - Verifying that the feeder disconnect is open and locked out
 - Using a ground stick, ground each ungrounded phase to bleed off any residual electrical charge on the circuit.
 - Attaching grounding jumpers to each ungrounded phase of the circuit on which work is to be performed
 - None
3. High voltage circuits will not be energized until:
 - All work on the high voltage circuit is completed and inspected.
 - All personnel have been cleared from the high voltage area and notified that the circuit will be energized.
 - All protective grounding installed has been removed from ungrounded conductors.
 - The high voltage area has been secured and locked.
4. Any project specific requirements for this section are listed here.
 - None

9. Lockout – General Requirements

1. All energy sources of power-driven equipment will be locked and/or tagged in the off-position when maintenance is being performed.
2. Energy sources that must be locked out include but are not limited to electrical, mechanical, chemical, steam, hydraulic and pneumatic.
3. It is the responsibility of the qualified person to ensure that the proper lockout/tagout procedures are followed.
4. It is the responsibility of the qualified person and the clearance holder performing the maintenance to ensure that all equipment is properly locked and tagged out before starting any maintenance work.
5. Both the qualified person and the clearance holder must check the equipment before restarting it to make sure it is safe to operate.

6. Skanska requires that both lockout and tagout devices be used during equipment maintenance
7. All lockout devices must be:
 - Durable to withstand wear.
 - Substantial so they will not detach.
 - Capable of identifying the person who applied it.
 - Designed for a single use application
8. Available lockout devices include:
 - A disconnect switch, circuit breaker, valve or other energy isolating mechanism that is placed in the safe on or off position
 - A device placed over the energy isolating mechanism to hold it in the safe position
 - A lock attached to the "on" switch to ensure equipment cannot be energized without removal of the lock
9. Any project specific requirements for this section are listed here.
 - None
10. Tagout-General Requirements
 1. Tagout refers to a sign or tag posted on a switch that physically cannot be locked out.
 2. Once the switch has been placed in the off-position, the tag is placed over the switch and warns other employees that the equipment is under maintenance and should not be started.
 3. This tag must also identify the person who applied it. In a tagout, the energy-isolating device is placed in the safe position and a written warning is attached to it.
 4. All tagout materials must be:
 - Durable to withstand wear.
 - Substantial so they will not detach.
 - Capable of identifying the person who applied it.
 - Designed for a single use application.
 5. A lockout or tagout is applied whenever maintenance is performed around any machine where injury could occur from:
 - Unexpected startup of the equipment.
 - Release of stored energy.
 6. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- [LOTO Emergency Lock Removal Form - LOTO Emergency Lock Removal Form](#)
- [LOTO Shutdown Equipment Form - Shutdown Equipment Form](#)
- [LOTO Evaluation Form - LOTO Evaluation Form](#)
- [LOTO Evaluation Form - Control of Hazardous Energies - LOTO Evaluation Form](#)

Applicable Training

Management training and communications

Employee will be properly trained to ensure that all affected employee(s) understand the purpose and function of the lockout/tagout policy. The training will include the following:

- Communications
 - Each qualified person will receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace and the methods and means necessary for energy isolation and control
 - Each supervisor of the affected employee(s) will be instructed in the purpose and use of clearance procedure
 - All other employees who work in construction or startup operations and may be in an area where energy control procedures may be utilized will be instructed about the procedure and about preventing any attempt to restart or re-energize equipment or systems that are locked out.
 - Any project specific requirements for this section are listed here:
 - None
- Employee Retraining:
 - Retraining will be provided for all clearance holders, qualified persons and affected employee(s) whenever there is a change in their job assignments, equipment, or processes that present a new hazard or when there is a change in the safety clearance procedure

- Additional retraining will also be conducted wherever a periodic inspection of the section reveals or whenever management has reason to believe that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures
- Management will verify that employee training has been accomplished and is being kept up to date. The verification will contain each employee's name, dates of training and who conducted the training
- Any project specific requirements for this section are listed here:
 - None

Lockout/Tagout

- Employees performing any service or maintenance work must be made aware of the lockout and tagout program. This also applies to any vendors or subcontractors doing work on company jobsites.
- Employees will be taught the purpose and function of performing the lockout/tagout.
- Employees will receive periodic training to ensure they are up to date and knowledgeable on the lockout/tagout program and procedure.
- Any project specific requirements for this section are listed here:
 - None

Training Links

- [Lockout Tagout \[Competent Person\] - Lockout Tagout \[Competent Person\]](#)

Potential Related Safety, Health and/or Environmental Aspects

- Electrical
- Hazard Communication
- Pressurization of Piping Systems



Maintenance and Protection of Traffic

Objective

The purpose of the Maintenance and Protection of Traffic (MPT) program is to protect our employees and the public when our projects directly impact traffic. This program will be project-specific according to the environment and needs of the site.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.200 Subpart G - Signs, Signals, and Barricades - Accident prevention signs and tags](#)
- [Manual on Uniform Traffic Control Devices \(MUTCD\)](#)
- [OSHA 29 CFR 1926.201 Subpart G - Signs, Signals, and Barricades - Signaling](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 11, §1597-1599](#)
- [American Traffic Safety Services Association \(ATSSA\)](#)

Skanska/Client Requirements

- None

Procedure

When it becomes necessary to temporarily close a public street or alley, a written traffic control plan is required to show how the closure will occur. The plan must be submitted to Skanska for review.

1. Maintenance of Traffic (MT) plan shall include:

1. Copy of current specifications
2. Barricade log
3. Duration of plan
4. Traffic survey identifying conditions (volume, speed, etc.)
5. Existing traffic control measures
6. Photos and/or video of existing conditions along with periodic photos as the plan changes
7. Applicable permits

2. Specialized Vehicles

Projects that require extensive traffic control may set up specific traffic control vehicles with flashing/rotating lights or beacons, sign racks, cone racks, worker platforms, protective railing and impact absorption capabilities, (attenuator trucks). Use the following at a minimum:

1. The cone truck should be a one-ton flatbed outfitted with two warning beacons visible from all directions and a Type II flashing arrow sign controlled from within the cab.
2. There should be two (2) platforms on the truck for employees to stand on while setting out the cone pattern, one (1) on each side built into the bed frame. These can be a stand-in type cages so that the employee can stand upright while placing or removing the cones. This design will help to ensure the safety of the worker while reducing the possibility of an injury due to excessive bending.
3. Fall protection equipment shall be provided to the employees if required.
4. The crash truck should be a five-ton flatbed, outfitted with the same warning devices as the cone truck. Check with local authorities for your area as some require Type I arrow signs on crash trucks.
5. There will be an approved truck-mounted attenuator attached to the rear of the truck for added protection against vehicle impacts.
6. There will be two-way communication between all vehicles and the superintendent in charge of traffic control.
7. Any project specific requirements for this section are listed here.
 - None

3. Flagger Control

1. Flaggers are required when:
 - Workers or equipment intermittently block a traffic lane.
 - Plans call for one (1) lane to be used for two (2) directions of traffic with a flagger at each end.
 - EHS and/or project staff determines there is a need.

- Required by the owner.
 - 2. Flaggers will be trained in the techniques of flagging traffic (i.e., ATSSA and/or state equivalent) before performing this duty.
 - 3. Flaggers will be far enough away from the work to slow or stop traffic before it enters the work zone.
 - 4. During daylight hours, all flaggers must wear a reflectorized garment (ANSI/ISEA 107-240 Class II).
 - 5. At night, all flaggers must wear a reflectorized garment (ANSI/ISEA 107-240 Class III). It is recommended that they also wear reflectorized gloves.
 - 6. From sunset to sunrise, flagger stations must be illuminated so the flagger is clearly visible to approaching traffic.
 - 7. When communicating through radios, a spare battery pack should be readily available.
 - 8. If communication breaks down between the flaggers, the operation is to be shut down immediately until the situation is remedied.
 - 9. Any project specific requirements for this section are listed here.
 - None
4. Documentation
1. One (1) person should be responsible for documenting traffic control.
 2. The same individual should carry out routine inspections of the traffic control installation.
 3. A traffic control inspection report should be completed and signed every day by the designated traffic control person and included in the documentation.
 4. Further documentation will include a camera for recording any accidents or incidents. These pictures will be in a successive series from advance warning, all the way up to and including termination of the traffic pattern.
 5. Documentation records should include:
 - Starting and ending times of work
 - Location of work
 - Names of crew members
 - Types of equipment used
 - Changes in temporary or permanent regulatory devices
 - Installation, change and removal of traffic control devices
 - Drawing of working closure to include all devices
 6. When an inspection requires correction to include maintenance, the documentation should include:
 - A description of the corrections needed, when it was noted and by whom
 - Corrections made or deferred and why
 - Replacements made or deferred and why
 - Any other needed actions
 7. Any project specific requirements for this section are listed here.
 - None
5. Control Warning and Guidance Devices
1. Effective warning and guidance devices are planned out in advance and should be uniformly placed and well maintained. There are six (6) categories of devices:
 - Signs
 - Barricades
 - Delineators
 - High-level warning devices
 - Warning lights/illumination
 - Flashing arrow/message boards
 2. Utilization of Halo has been determined to be a best practice and is recommended for Skanska projects. All signage and traffic control shall comply with the Federal Manual on Uniform Traffic Control Devices (MUTCD) and can be viewed and downloaded at: <http://mutcd.fhwa.dot.gov/>
6. Traffic Signs for Functional Groups
1. Construction signs are used only for construction or maintenance work on or adjacent to the roadway.
 2. Warning signs generally apply to a permanent situation but may have some applications on temporary construction sites.
 3. Regulatory signs are used for posting speed limits, enforced by local law enforcement agencies and maintained by the contractor when placed within or adjacent to the work area.
 4. Sign location depends on alignment, grade, location of street intersections and posted speed limits. The signs must face and be visible to oncoming traffic and be mounted to resist displacement.

5. Advance warning signs are located on the right-hand side of traffic lanes.
6. On divided highways, supplemental advance warning signs will be placed on the divider.
7. Messages conveyed during hours of darkness must be on reflectorized or illuminated signs.
8. Signs will be installed before work begins and will be removed or covered immediately after work has been completed.
9. If at any time a sign is not required, it will remain covered or be removed.
10. Any project specific requirements for this section are listed here.
 - None

7. Barricades

1. Barricades will be used to mark or block off specific hazard or to channel traffic. They may not be placed in a moving lane of traffic without advance warning, such as high level warning devices (e.g., flashing arrow signs) and appropriate delineators.
2. When closing off a street, barricades should be placed to prevent vehicles from passing through, except where access is necessary for local traffic or emergency vehicles.
3. Barricades will be aligned with MUTCD.
4. Marking barricade rails is done by alternating orange and white stripes on a downward slant at 45 degrees. The entire area of white and orange must be reflectorized for night time use. The width of the stripes depends on the size of the rails. Rails less than three feet require four (4) inch wide stripes; all other rails require six (6) inch stripes.
5. Barricades will have a minimum of two hundred seventy (270) square inches of retro-reflective area facing traffic when used on freeways, expressways and other high-speed highways.
6. Barricades with stripes that begin in the upper right side and slope downward to the lower left are designated right barricades. Barricades with stripes that begin in the upper left side and slope downward to the lower right are designated left barricades. Barricades should slope with the direction of traffic.
7. On highways or in situations where barricades are susceptible to overturning in the wind, sandbags should provide ballasting. Sandbags may be placed on lower parts of the frame or stays to provide the required ballast but will not be placed on top of any striped rail.
8. Any project specific requirements for this section are listed here.
 - None

8. Delineators

1. Delineators will be used to aid a driver in determining the location and alignment of the traffic lane.
2. During daylight hours, maximize delineator effectiveness by evaluating position, spacing, form, texture, size and color.
3. During night time, maximize effectiveness by evaluating position and visibility.
4. All delineators used at night must be adequately reflectorized.
5. Delineators are used for the following instances:
 - To channel and divert traffic in advance of work zones.
 - To define traffic lanes through work zones.
 - To define a change in the position of the existing lane around work zones.
 - To define curves and edges of the roadway on detours.
 - Delineators will be constructed to withstand impact without appreciable damage to the device, the striking vehicle or passing traffic, including damage from knockdown by wind or turbulence from passing vehicles.

Minimum Recommended Delineator and Sign Placement				
Traffic Speed	Taper Length (Each Lane)	Delineator (Taper)	Spacing (Tangent)	Sign Spacing (Advance of Taper & Between Signs)
25 MPH	150 Feet	25 Feet	50 Feet	150 Feet
30 MPH	200 Feet	30 Feet	60 Feet	200 Feet
35 MPH	250 Feet	35 Feet	70 Feet	250 Feet
40 MPH	350 Feet	40 Feet	80 Feet	350 Feet
45 MPH	550 Feet	45 Feet	90 Feet	550 Feet
50 MPH	600 Feet	50 Feet	100 Feet	600 Feet
55+MPH	1000 Feet	50 Feet	100 Feet	1000 Feet

9. Warning Lights/Illumination

1. Lights should be used on top of channelizing devices for intermediate and long-term closures especially at tapers, shifts and turnarounds.
2. Illumination should be provided in lane closures at night.
3. Any project specific requirements for this section are listed here.
 - None

10. Flashing Arrow/Message Signs

1. Panels with a matrix of electric lights, capable of sequential arrows displays or messages are intended to supplement, not replace, other work area traffic control devices by providing additional, high level, advance warning of lane closures. They are effective for all lane closures and should be considered for all high-speed situations.
2. Flashing arrow/message signs will be repaired immediately or taken out of service if:
 - Any of the lamps are out.
 - The panel is not dimming properly.
 - Lamps are out of alignment.
3. Any project specific requirements for this section are listed here.
 - None

11. Day Closures

1. Devices should be installed in the direction of traffic in the following order:
 - First advance warning sign
 - Advance warning zone
 - Transition zone
 - Buffer zone
 - Work zone
 - Termination zone
2. When signs and channelizing devices are installed and removed several times during an operation, a spot should be painted or marked where each sign or device is located to minimize time required to reset the signs or devices.
3. Flashing vehicle lights should be used to warn the drivers of the presence of workers.
4. All aspects of the closure should provide clear, concise direction to all drivers. Be sure of positioning and visibility of all signs, flashing arrow/message signs, barricades and delineators.
5. Any part of the pattern that has been disturbed should be reset as soon and as quickly as possible.
6. Any project specific requirements for this section are listed here.
 - None

12. Night Closures

1. During night operations, a back-up, shadow or protection vehicle should be used and should be positioned one hundred (100) feet or more behind the cone truck as the first signs are placed. This process is to be followed for set-up and teardown.
2. All crews working in or around the closure need to be outfitted with personal protective equipment, including bright clothes conforming to ANSI standards, hard hats, safety glasses, gloves and Class III reflectorized vests.
3. All employees should be visible at a distance of one thousand (1,000) feet.
4. If working together, crews/workers should wear the same clothing to prevent confusing approaching motorists.
5. Other applicable accessories may include retro reflective striping on hard-hats.
6. Before making night-time closures, all materials and equipment must be inspected and in good working order.
 - All message boards and flashing arrow signs will be tested to ensure all lights and switches are functioning properly and that the equipment is fueled and fully charged.
 - All inspections and maintenance procedures will be documented daily and/or nightly.
7. Devices maintained in project inventory will be kept clean, stored properly to avoid marring and organized to verify that all items are in stock and readily retrievable.
8. Devices will be inspected when they are returned to inventory.
9. Any devices that are non-standard or in poor condition will be retired, modified or repaired.
10. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- ATSSA supervision training
- ATSSA technical training
- ATSSA flagger training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Community Impacts Transportation, Traffic Circulation & Economic
- Community Impacts Utilities
- Cranes and Cranes Rigging
- Demolition
- Dropped Object Protection
- Electrical
- Excavation and Trenching
- Housekeeping
- Illumination - Project Lighting
- Inclement Weather and Lightning
- Material Handling and Storage
- Pile Driving
- Signs, Signals and Barricades
- Spills and Leaks



Material Handling and Storage

Objective

The purpose of this program is to establish safe procedures for material loading/unloading, storage, use and disposal. By properly handling materials with mechanical means, safe work practices and correct storage methods, the risk of injury and illness is reduced.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.251 Subpart H - Materials Handling, Storage, Use, and Disposal - Rigging equipment for material handling.](#)
- [Federal Motor Carrier Safety Administration 40 CFR 112.7\(h\)\(2\) & \(3\)](#)
- [Federal Highway Administration](#)
- [OSHA 29 CFR 1926.1501](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 15, Article 106 §5110-5120](#)
- DOT 49 CFR Parts 393.100-136
- [OSHA 29 CFR 1926.250 Subpart H - Materials Handling, Storage, Use, and Disposal - General requirements for storage](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 7, §1548-1549](#)

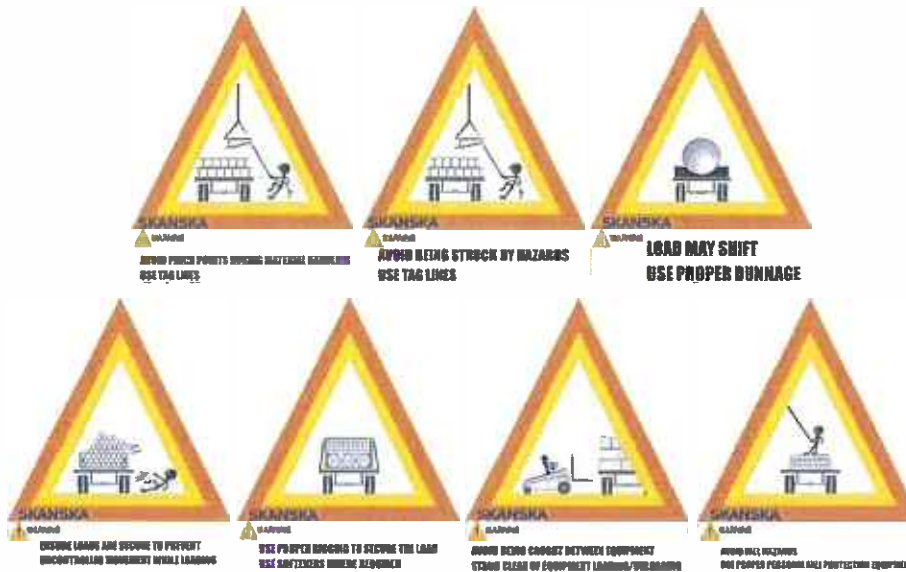
Skanska/Client Requirements

- None

Procedure

1. Loading and Unloading

1. All employees involved with the loading or unloading of materials will be trained in accordance with the requirements of this program. Exceptions to this program must be approved by the Skanska regional EHS Director.
2. Designate roles in loading/unloading operations, such as escort, spotter, flagmen, operator and competent person who will be involved in any activity involving loading/unloading.
3. Implement measures necessary to prevent unauthorized or unsupervised material handling for loading/unloading operations by competent person.
4. Ensure procedures are reviewed regularly to verify adequacy and adherence.
5. Ensure deficiencies in procedures are corrected before subsequent loading/unloading operations are authorized to continue.
6. Ensure safe access to truck bed during loading and unloading operations.
7. Examples of circumstances requiring the review of the loading/unloading program are:
 - Any observed unsafe acts that are against this policy or any other company policy.
 - Any observance of an unescorted delivery.
 - Any observance of an unsupervised loading/unloading activity.
 - The occurrence of an injury or near-miss during loading/unloading.
 - Employee complaints about the effectiveness of the program.
8. The decals below shall be applied to all Skanska-owned vehicles involved in loading or unloading on jobsites.



2. Escorting

1. Preloading/Unloading Procedure

1. All deliveries must be scheduled in advance of the anticipated delivery date and time.
2. A crewmember shall meet the delivery driver at project entrance.
3. Inspect load for movement/shifting during transit prior to accepting delivery.
4. Any loads that exhibit signs of shifting or movement during transit will not be accepted.
5. Use a flagger to spot vehicles in designated unloading area.
6. Loads must remain strapped/chained until in the designated unloading area.
7. Ensure that the truck or trailer does not move during loading or unloading with any piece of equipment by engaging the parking brake and chocking the wheels.
8. Designated loading and unloading areas shall be:
 - Clear of other traffic, pedestrians and people not involved in loading or unloading of materials
 - Clear of overhead electrical hazards/obstructions
 - Firm level ground

2. Loading the Truck and Trailer: Before the Tie-Downs Are Applied

1. The gross vehicle weight rating (GVWR) of a truck and trailer stipulates the maximum cargo weight that the unit may carry. Exceeding the GVWR is dangerous: brakes work less efficiently, tires loose air pressure and springs may be stressed to the limit.
2. Proper placement of materials must always be pre-planned. Placing a load too far back on a long trailer may cause fishtailing and placing it too far forward on a trailer can overload the tongue, making steering difficult.
3. Considerations:
 - Vehicles must never be overloaded.
 - Loading should allow for safe unloading.
 - The load must be distributed so that the maximum permitted gross vehicle weight and axle weights are not exceeded.
4. The load center of gravity is kept as low as possible to achieve maximum stability when the vehicle is braked, or accelerated or changes direction.
5. Unauthorized individuals will not be permitted into the loading area.
6. The designated competent person shall be in place to observe all loading activities.
7. Ensure the designated loading area is clear of all obstructions.
8. Ensure vehicle and trailer brakes applied and all stabilizers, wheel chocks and interlocks are engaged prior to the commencement of loading activities.
9. Drivers shall not remain in their cabs during loading activities unless required and authorized by Skanska management.
10. Ensure all vehicle floors and/or decking areas are inspected for debris, broken boarding, etc. prior to the placement of any loads.
11. Spotter should be in place when opposite side of load is not visible and maintain visual/audible communication with the operator and where needed.
12. Proper personal fall protection equipment shall be in place for all employees who are required to work from

13. Proper dunnage/cribbing must be in place prior to landing/placing the materials on the trailer.
14. Ensure lift plan, as required, is developed in the construction work plan.
15. Taglines are required if load is being moved overhead.
16. Rope hooks shall not be used to anchor loads. Rope hooks are not subject to construction standards and vary in strength, size and material content and are rarely designed to withstand forces.
17. All materials being loaded shall be secured to ensure no loose items.
18. Secure load in place with two straps at a minimum.
19. Fixed jacks may be necessary to support a semitrailer and prevent upending during loading or when the trailer is not coupled to a tractor.
20. Material handling form used for logging in materials being loaded and unloaded are as follows:

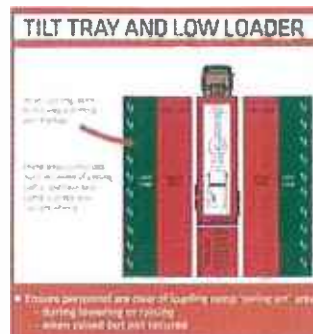
#	ITEM	CHECKS	CHECKS	COMMENT
1	Cargo:	Make sure all equipment is not damaged or missing		
2	Cargo/Load Distribution	Cargo is evenly distributed and lighter cargo is stacked on top of heavier freight; the cargo level and placement		
3	Cargo Material	Cargo is identified, tagged, banded or strapped and is in place right to prevent movement		
4	Cargo/Load	Check direction of cargo to vehicle orientation Does the cargo need to be tagged in the front? Is the load older than the best? Is a DOT Permit		
5	Surfaces	Check the top of the unit to ensure against the cargo		
6	Wheels	Check the cargo need to be distributed evenly		
7	Chassis and Fuel Tanks	Make sure there are cracks, leaks, water, leaks, fuel, electrolyte, and air pressure		
8	Interior Vehicle	Check interior for equipment all goods: Check for leaks, fuel, water, and air pressure		
9	Sealing points for doors	Check sealing points for air and water leaks Pressure sealing points are not tight and/or of equal or greater than strength ratings		
10	Equipment for doors	Check the unit, wheels are checked, hoses, air, fuel, and fueling backed down. Ensure that there is enough air, fuel, water, and air pressure		
11	Inspected during inspection	Check the unit, wheels are checked, hoses, air, fuel, and fueling backed down. Ensure that there is enough air, fuel, water, and air pressure		
	CITY	DATE	ITEM	TOTAL

RECEIVER
Do Not begin any offloading until you
have reviewed the checklist on rear of
card

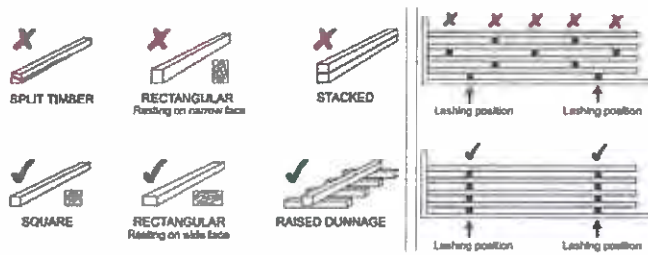
1. Unauthorized individuals will not be permitted into the unloading area.
2. The designated competent person shall be in place to inspect the load for stability and any shifting that may have taken place during transit and to observe all unloading activities.
3. Ensure the designated unloading area is clear of all obstructions.
4. Ensure vehicle and trailer brakes are applied and all stabilizers, wheel chocks and interlocks are engaged prior to the commencement of unloading operations.
5. Drivers shall not remain in their cabs during unloading operations unless required and authorized by project management.
6. Spotter should be in place where needed and maintain visual/audible communication with the operator.
7. Proper personal fall protection equipment shall be in place for all employees who are required to work from heights (six (6) feet or greater fall hazard) while unloading materials.
8. Proper dunnage/cribbing must be in place prior to landing/placing the materials in the designated storage area.
9. Ensure lift plan, as required, is developed in the construction work plan.
10. Taglines are required if load is being moved overhead.
11. Rope hooks should not be used to anchor loads. Rope hooks are not subject to construction standards and vary in strength, size and material content and are rarely designed to withstand forces.
12. The delivered material shall be in a condition to ensure safe unloading.
13. Fixed jacks may be necessary to support a semitrailer and prevent upending during the unloading when the trailer is not coupled to a tractor.

Hazardous material loading/unloading

1. Identify and communicate special handling and storage requirements for all hazardous materials prior to loading and unloading.



Dunnage Do's and Don'ts



Load Weights - Calculating

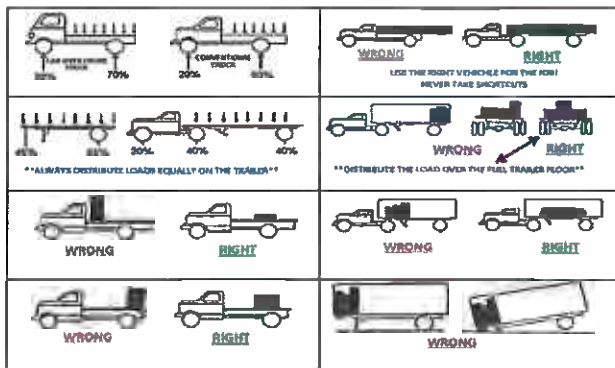
Materials and Liquids - Pounds / cu. ft.			Pounds / sq. ft.		Pounds / gal.
Aluminum	165	Iron Casting	450	Steel plate	Gas 6.0
Asbestos	153	Lead	708	• 1/8" 5	Diesel 7.0
Asphalt	81	Lumber - Fir	32	• 1/4" 10	Water 8.3
Brass	524	Lumber - Oak	62	• 1/2" 20	
Brick	120	Lumber - RR Ties	50	• 1" 40	
Bronze	534	Oil, Motor	58	Aluminum plate	
Coal	56	Paper	58	• 1/8" 1.75	• 7.5 gallons of liquid to a cubic foot
Concrete, Reinf.	150	Portland Cement	94	• 1/4" 3.50	• 27 cubic feet to a cubic yard
Crushed Rock	95	River Sand	120	Lumber	• 2,000 lbs = 1 U.S. ton
Diesel	52	Rubber	94	• 3/4" Fir 2	
Dry Earth, Loose	75	Steel	480	• 3/4" Oak 4	
Gasoline	45	Water	63		
Glass	162	Zinc	437		

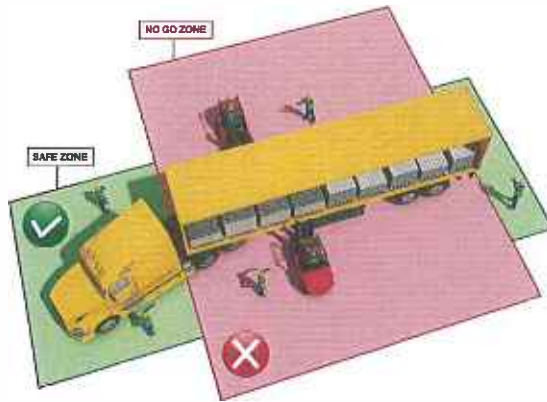
Formulas and Information					
• H = Height	• W = Width	• L = Length	• d = diameter	• r = 1/2 diameter	• $\pi = 3.2$ (approx.)
• Area of square or rectangle = LW • Vol. of cube = HWL • Area of circle = πr^2 • Circumference = πd					
• The area of a circle is approx. 80% of its diameter squared (diameter x diameter)					
• Load Weight (to estimate) _____ Volume in cu. ft. x 500 lbs. x density factor .02, .10, .20, .30 etc.					

Formulas and Information

• H = Height • W = Width • L = Length • d = diameter • r = 1/2 diameter • $\pi = 3.2$ (approx.)
 • Area of square or rectangle = LW • Vol. of cube = HWL • Area of circle = πr^2 • Circumference = πd
 • The area of a circle is approx. 80% of its diameter squared (diameter x diameter)
 • Load Weight (to estimate) = Volume in cu. ft. x 500 lbs. x density factor .02, .05, .10, .20, .30 etc.

6. Load Distribution on Trailers





Distance Requirements for Overhead Power Lines



7. Material Storage

1. Plan for accessibility and safe clearances of designated storage space.
2. Passageways, traffic routes and rail beds will be identified and not be obstructed.
3. All storage space will be kept organized and free of debris.
4. Materials stacked above six (6) feet in height shall be banded or otherwise secured and warning signs posted.
5. Permanent passageways should be marked to ensure safe access.
6. Proper drainage must be established before the storage of materials is initiated.
7. All parts of cranes and material handling equipment, including loads hoisted, should be kept at least ten (10) feet from energized overhead electrical lines or equipment. Minimum clearance will change according to line voltage in cases where voltage exceeds 50 kV.
8. Underground utilities must be given sufficient protection from loads imposed by equipment and materials.
9. Material must be stored in accordance with its compatibility as indicated on the Safety Data Sheet.
10. Materials shall be secured to prevent sliding, falling or collapsing.
11. Load limits for the floor or shelf being used for storage must be determined by a qualified person and not exceeded.
12. Equipment or materials stored inside a building under construction will not be placed within six (6) feet of any hoist way or inside floor openings, nor within ten (10) feet of an unenclosed exterior perimeter.
13. Materials will not be stacked above or against the guardrails.
14. Stacking of materials should be based on the frequency of need. Special bins shall be used for odd shapes or fragile material and height limitations shall be determined when planning storage space.
15. Lumber shall not be stacked more than sixteen (16) feet high if moved by hand or more than twenty (20) feet high if moved by forklift.
16. All nails must be removed from used lumber before stacking. Lumber must be stacked and leveled on solid supports and the stacks must be stable and self-supporting.
17. Stacks of loose bricks shall not be greater than seven (7) feet high. At four (4) feet, the stack will be tapered back two (2) inches for every foot above four (4) feet. At six (6) feet, the stack will be tapered back one-half block for each tier above six (6) feet.
18. Bags and bundles must be stacked in interlocking rows to remain secure.
19. Bagged material must be stacked by stepping back the layers and cross-keying the bags at least every ten (10) layers.

20. Boxed materials must be banded or held in place with cross-ties or shrink wrap plastic fiber when stacked.
21. Drums, barrels and kegs must be stacked symmetrical. When stored on their sides, bottom tiers must be blocked to prevent rolling.
22. If stacking material two (2) or more tiers high, the bottom tier must be choked to prevent shifting in either direction.
23. When stacked on end, planks or sheets of plywood or pallets must be placed between each tier to provide a flat, firm surface.
24. Cylindrical materials, bar stock and structural steel must be blocked or stored in racks.
25. Racks will not face main aisles or traffic lanes nor create hazards to passersby when supplies are being removed. When racks are not available, material will be stacked and blocked to prevent spreading or tilting.
26. Large structural steel beams will be placed on solid level ground. They should be braced, especially when the height exceeds the width, to prevent accidental tipping over.
27. Any project specific requirements for this section are listed here.
 - None

8. Banding

1. Hazards associated with steel strapping include shifting or moving loads, loose ends, whipping, improper use of banding as handholds, tripping over banding and cuts from sharp edges.
2. Banding shall be removed with caution because loads may have shifted during transport and can tumble when tension is released.
3. When tension is released from removal of banding or breaks caused by incorrect strapping, loose ends will whip away from the package with enough force to cause serious injury. Always use caution when working around bundles strapped under pressure.
4. Banding is not to be used as a handhold to access the load.
5. Steel straps shall be disposed of as soon as possible to avoid tripping or cutting hazards.
6. Banding machines must be kept in good condition and employees using the machine will be properly trained.
7. When applying or removing banding, ensure proper hand protection is utilized.
8. Loose fitting clothes are not permitted when working around strapping machines.
9. Safe removal of banding from bound material will be with tools designed to cut steel banding. Claw hammer, crowbar, chisel or anything that applies leverage is prohibited when removing banding.
10. Employees and/or machinery must be clear of the work area when removing banding.
11. Two-hand operated strap cutters are recommended because they are designed to cut the strap and absorb the energy released when the strap is cut.
12. Straps should be cut square and not at an angle.
13. Any project specific requirements for this section are listed here.
 - None

9. Manually Moving Materials

1. Inspect materials for any laceration hazards or splintering.
2. Determine the weight of the load before applying force to move it.
3. Identify and walk the intended pathway and ensure it is clear of any hazards.
4. Use gloves and forearm protection when handling sharp-edge materials.
5. Get assistance for large and/or heavy loads.
6. Get assistance when visibility is imposed due to load size.
7. Use dunnage blocks under raised loads that require manual placement.
8. Attach handles and holders to loads when possible to reduce pinching or smashing fingers.
9. Any project specific requirements for this section are listed here.
 - None

10. Manually Operated Mechanisms

1. Wheel wells with safety hooks, jibs or other lifting mechanisms should be used when manually lifting material overhead.
2. Equipment is to be installed as per manufacturer's recommendations.
3. Lifts are to be reviewed by competent person.
4. Hoist all loads with tag lines.
5. When lifting all loose materials shall be secured to prevent materials from slipping out of rigging.
6. Any project specific requirements for this section are listed here.
 - None

11. Moving Long and/or Bulky Materials

1. Any material that may carry a wind load requires two (2) or more employees to handle.
2. Any project specific requirements for this section are listed here.
 - None

12. Mechanically Moving Materials

1. Barrels must always be picked with a proper lifting device. Cutting lifting eyes into barrels to move is not acceptable.
2. Weight, size and shape of the material must be determined when selecting equipment to move it.
3. Consult the equipment's rated load chart to determine maximum weight and condition capacity. Rating charts shall be available to the operator and not exceeded.
4. Ensure that loads are centered and stable against shifting.
5. Keep the load in the lowest position possible on the equipment for traveling.
6. Stacked loads on pallets shall be correctly piled and cross-tiered and secured with banding if necessary.
7. The water line and weight capacity of scale boxes and skip buckets must be clearly identified.
8. Scale boxes or skip buckets used for moving material or debris must be permanently rigged with a bolt and pin shackle and may not be loaded above their water line or exceed weight capacity.
9. Lifting boxes must be proof tested by a qualified person to one hundred twenty five percent (125%) capacity.
10. Daily visual inspections must be performed on all lifting boxes.
11. Any project specific requirements for this section are listed here.
 - None

3. Conveyors

1. General Requirements

1. Employees must never ride on material handling conveyors.
2. Where the conveyor passes over work areas or aisles, guards must be provided to keep employees from being struck by falling objects.
3. Crossovers must be guarded to protect employees and either marked with a warning sign or painted a highly visible color.
4. Screw conveyors must be completely covered except at loading and discharge points.
5. Any project specific requirements for this section are listed here.
 - None

2. Guards and Emergency Stops

1. Guards must be provided at loading and discharge points to protect employees from contacting the moving screw.
2. Guards are moveable and must be interlocked to prevent conveyor movement when not in place.
3. Emergency buttons or pull cords designed to stop the conveyor must be installed at the employee workstation or the station must be adequately guarded to positively prevent all injury exposure.
4. Access points on the conveyor should have an emergency stop cable that extends the entire length of exposed belt or be guarded.
5. The emergency stop switch must be designed to be reset before the conveyor can be restarted.
6. Any project specific requirements for this section are listed here.
 - None

4. Disposal of Waste Material

1. General Requirements

1. When materials must be dropped more than twenty (20) feet to any point lying outside the exterior walls of a structure, an enclosed chute of wood or equivalent material will be used as a ramp.
2. When debris is dropped through holes or openings in the floor without the use of a chute, the area onto which the material is dropped will be completely enclosed with barricades.
3. Enclosure requirements:
 - Physical barricades must be at least forty-two (42) inches high and at least six (6) feet back from the projected edge of the opening above.
 - Wind velocity and its potential for carrying materials should be calculated into the disposal plan.
 - Signs warning of the hazard of falling materials should be posted at each level.
 - A spotter shall be posted at the area of retrieval to keep area clear of unnecessary traffic.
 - Debris will not be removed from the disposal site until all handling ceases from above.
4. All scrap lumber, waste material and rubbish shall be removed from the immediate work area as the work progresses.
5. All solvent waste, oily rags and flammable liquids shall be kept in fire resistant covered containers until removed from the jobsite.

6. Any project specific requirements for this section are listed here.

- None

EHS Forms and Documents

- [Material Handling Inspection Form - Material Handling Inspection Form](#)

Applicable Training

- None

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Biodiversity Protection
- Cranes and Cranes Rigging - Subcontractor
- Dropped Object Protection
- Fire Prevention and Protection
- First Aid, Emergency Services, Bloodborne Pathogens
- Hazard Communication
- Hazardous Materials and Waste Management
- Housekeeping
- Lockout Tagout
- Maintenance and Protection of Traffic
- Material Handling and Storage
- Materials and Waste Management
- Respiratory Protection



Mobile Elevated Work Platforms

Objective

The purpose of this program is to establish safe working practices for all employees working on or around mobile elevating work platforms (MEWPs).

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.952 Subpart K Electrical - Authority for 1926 Subpart K](#)
- ANSI A92
- [OSHA 29 CFR 1926.453 Subpart L Scaffolds - Aerial lifts](#)
- [OSHA 29 CFR 1926.952 Subpart V Electric Power Transmission and Distribution - Job briefing](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 4, Article 24 §3636-3648](#)
- [OSHA 29 CFR 1926.502 Subpart M Fall Protection - Fall protection systems criteria and practices](#)

Skanska/Client Requirements

- None

Procedure

Mobile Elevating Work Platforms (MEWPs), including telescoping boom platforms, articulating boom platforms, scissor lifts and vertical towers/lifts are covered by this program.

1. All Group B MEWPs (e.g., boom lifts) shall be fitted with appropriate primary or secondary guarding devices in an effort to eliminate operator crushing incidents. A primary guarding device is a physical structure that prevents the operator from being crushed. A secondary guarding device is an alarm and/or sensor bar that alerts ground personnel when the operator is in a potential crush hazard. In the event that primary guarding or secondary guarding is not available, a spotter who has no other responsibilities shall be at the MEWP's emergency controls at all time.
2. MEWPs designated as "indoor" only models shall not be used outdoors (i.e., anywhere the MEWP would be subjected to wind). For MEWPs with "indoor/outdoor" settings, only the "outdoor" setting shall be used when the MEWP is subjected to wind.
3. The working surface shall be assessed prior to MEWP operation to ensure it is adequate to support the weight of the MEWP.
4. A written rescue plan shall be in place prior to MEWP operation. The rescue plan shall:
 1. Be incorporated into operator, supervisor and occupant training
 2. Limit the time that a worker is suspended in the air
 3. Define type(s) of rescue to be employed:
 - Self-rescue = by the person involved
 - Assisted rescue = by others in the work area
 - Technical rescue = by emergency services
 4. All MEWPs used must be equipped with a one-step emergency lowering procedure. Those with a 2-3 step emergency lowering procedure will not be allowed to be used
5. During operation of the MEWP, an individual trained on emergency ground control processes shall be in reasonable proximity to ground controls to respond to an emergency.
6. In the event that an MEWP is stuck, the operator must immediately shut off the MEWP and summon help.
7. MEWPs shall be maintained and inspected in accordance with the manufacturer's recommendations and ANSI standards. Required documented inspections include:
 - Frequent inspections=every three months or 150 operating hours, whichever comes first
 - Annual inspections at least every twelve (12) months shall be documented on the MEWP to identify the date of the last annual inspection
8. MEWP operators shall be trained on the safe operation of the equipment, selection of the proper MEWP, risk assessment, rescue planning and occupant training.
9. MEWP occupants (anyone in the MEWP who is not an operator) shall receive training on fall protection systems and what to do if the operator is unable to operate the lift.

10. Employees who directly supervise one or more MEWP operators shall receive MEWP supervisor training.
11. Prior to use, employees shall perform a documented inspection on the MEWP. Inspections shall be in accordance with the manufacturer's requirements.
12. Employees shall ensure that copies of the manufacturer's operating manual are with each MEWP.
13. Employees shall wear a full body harness and be tied off with a self-retracting lifeline (SRL) to the manufacturer's designated anchorage point at all times while operating the MEWP.
 1. Decelerating lanyards are not permitted. SRLs manufactured with decelerating lanyards are acceptable.
 2. Static fall restraint lanyards are permitted in 3A MEWPs (e.g., scissor lifts).
14. While working from a MEWP, tying off to an adjacent structure or equipment shall not be permitted unless designed for that purpose or appropriate engineering design checks have been conducted.
15. Operators and their supervisors shall be held accountable for the safe operation of the MEWP to which they are assigned. If the MEWP is operated in an unsafe manner, the operator shall be subject to disciplinary action up to, and including, termination.
16. Employees shall always stand firmly on the platform of the lift. An employee shall never stand, sit or climb on the edge of the platform, or use any type of ladder, plank or other device as a work positioning system unless approved by the MEWP manufacturer.
17. The gates of MEWPs shall be properly engaged whenever the MEWP is in use.
18. Boom or basket load limits shall not be exceeded for any reason.
19. MEWPs shall not be used as material hoists unless the load is contained within the basket and meets the MEWP's rated capacity. The MEWP shall not be modified for hoisting, lifting or positioning of material unless approved by the manufacturer.
20. An MEWP shall not be moved when the boom is extended in a working position and employees are in the platform, unless the equipment has been specifically designed for this purpose.
21. The insulating components of an MEWP shall not be altered or integrity compromised in any way to reduce its insulating value.
22. Operational MEWPs must maintain a minimum of 10 feet clearance from power lines in accordance with OSHA 1926 subpart K.
23. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- [Mobile Elevated Work Platform Inspection - inspection form](#)

Applicable Training

- Operator training
- Supervisor training
- Occupant training
- None

Training Links

- [Aerial Lift Safety \[Competent Person\] - Aerial Lift Safety \[Competent Person\]](#)

Potential Related Safety, Health and/or Environmental Aspects

- Community Impacts Transportation, Traffic Circulation & Economic
- Community Impacts Utilities
- Cranes and Cranes Rigging
- Electrical
- Environmental Compliance Plan (ECP)
- Hazard Communication
- Hazardous Materials and Waste Management
- Materials and Waste Management
- Mobile Elevated Work Platforms
- Noise Exposure
- Pile Driving
- Signs, Signals and Barricades

- Spills and Leaks

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Motor Vehicles and Mechanized Equipment

Objective

The purpose of this program is to establish rules and regulations for safe operation of motor vehicles and mechanized equipment.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.601 Subpart O - Motor Vehicles, Mechanized Equipment, and Marine Operations - Motor vehicles](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 11, §1597-1599](#)
- [OSHA 29 CFR 1926.600 Subpart O - Motor Vehicles, Mechanized Equipment, and Marine Operations - Equipment](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 16, Article 107 §5146](#)
- [OSHA 29 CFR 1910.178 Subpart N - Materials Handling and Storage - Powered industrial trucks](#)
- [OSHA 29 CFR 1926.20 Subpart C - General Safety and Health Provisions - General safety and health provisions](#)

Skanska/Client Requirements

- None

Procedure

1. General Requirements

1. Employees shall have appropriate license and/or training to operate vehicles and equipment.
2. Parked equipment, one (1) ton or greater in capacity, shall have a wheel chocked and parking brake set.
3. Modifications affecting the equipment's safe operation shall not be made.
4. Complete visual equipment inspections and applicable checklists prior to each use and submit to supervisor daily.
5. Correct identified safety defects before equipment use. Seat belts shall be worn while operating vehicles and equipment with roll over protective structures (ROPS).
6. Equip construction vehicles greater than a pickup truck with an audible reverse signal alarm. A "white noise" alarm may be required in urban areas. Remove construction equipment without alarms from service or provide a spotter.
7. Parked -equipment unattended overnight any must have lights or reflectors. All hauling vehicles, loaders, cranes, shovels, etc., shall have a cab shield and/or canopy.
8. Equip all rubber-tired equipment with manufacturer provided fenders.
9. Secure tools and equipment in employee compartment when transported.
10. Never short across the starter terminals batteries as this could bypass the engine neutral-start system as well as damage the electrical system.
11. Mount and dismount the equipment at the manufacturers recommended access points.
12. Passengers are not permitted in equipment cabs unless additional seat, seat belt, and ROPS or falling object protective structure (FOPS) are provided.
13. Riding in the bed of pick-up trucks is prohibited.
14. Do not operate equipment above posted speed limits.
15. Pushing equipment with vehicles or other equipment is strictly prohibited.
16. Any project specific requirements for this section are listed here.
 - None

2. Backing and Spotters

1. All equipment reversing operations shall be controlled.
2. Use a spotter when workers on foot are exposed to reversing operations.
3. Designated Spotters shall be used where the vehicle or equipment has an obstructed view to the rear, except when approved controls are identified in the Construction Work Plan.
4. Spotters shall be trained, designated and identified.
5. Designated spotters will be personnel assigned to reverse signaling activities and shall have the following:
 - A minimum ANSI approved Class 2 safety vest and spotter gloves during daytime operations
 - A minimum ANSI Class 3 safety vest and two lighted red traffic wands during nighttime operations
 - During all operations the designated spotter shall be visible at a minimum distance of one thousand (1,000) feet.

6. Spotters shall not engage in any activities other than those related to the signaled vehicle or equipment.
7. Spotters shall always maintain a safe working distance from the vehicle or equipment and visual contact with the operator, and shall not cross behind vehicles or equipment.
8. If the operator loses visual contact with the spotter, the vehicle shall immediately stop until visual contact with the spotter is reestablished.
9. Light duty vehicles, which DO NOT have a reverse signal alarm and an obstructed view to the rear, are required to do the following:
 - Before reversing, perform a three hundred sixty (360) degree visual inspection, sound the horn with two (2) short blasts and wait two (2) seconds before proceeding.
 - Reverse the vehicle into a parking space upon arrival or pull through to eliminate the need to back out of a parking space or work area.
10. Vehicles and equipment with video or proximity sensor technology are NOT exempt from the use of a spotter if the operator has an obstructed view.

3. Maintenance

1. Implement an equipment maintenance program.
2. All equipment is required to be locked and tagged out prior to maintenance operations.
3. Block or crib heavy equipment suspended by slings, hoists or jacks to prevent falling and shifting. Provide safety tire rack cage or equivalent protection when changing tires with split rims or rims equipped with locking rings.
4. Equip trucks with dump bodies with permanent positive protection capable of locking to prevent accidental lowering of the body during maintenance or inspection work.
5. Replace all damaged or worn parts prior to use.
6. Any project specific requirements for this section are listed here.
 - None

4. Safe walkways

1. Delineate safe walkways, haul routes and work zones.
2. The following are best practices used when installing walkways:
 - Avoid personnel versus machine interface. All personnel shall stay at least 25 feet away from active heavy equipment until visual contact has been made with the operator and the operator has acknowledged the close proximity.
 - Maintain eye contact with operators when walking near any equipment or vehicles.
 - Use barricades and delineators to establish pedestrian and safe access walkways within work zones. Established walkways are NOT PPE free zones, unless otherwise posted.
 - Use construction barrels to delineate haul routes and equipment paths.
 - Maintain barricades, delineators and barrels on a daily basis.
 - Consider installing swing gates at the entrance/exit of each walkway.

Delineators used for walkway



Entrance/Exit swing gate



EHS Forms and Documents

- [Heavy Equipment Motor Vehicle Inspection - Heavy Equipment Motor Vehicle Inspection](#)
- [Fork Lift Checklist - Fork Lift Checklist](#)

Applicable Training

- Equipment Operator Training
- None

Training Links

- [Decision Driving \[Competent Person\] - Decision Driving \[Competent Person\]](#)

Potential Related Safety, Health and/or Environmental Aspects

- Community Impacts Transportation, Traffic Circulation & Economic
- Community Impacts Utilities
- Cranes and Cranes Rigging
- Hazard Communication
- Hazardous Materials and Waste Management
- Materials and Waste Management
- Mobile Elevated Work Platforms
- Noise Exposure
- Pile Driving
- Signs, Signals and Barricades
- Spills and Leaks



Pile Driving

Objective

The purpose of this program is to establish a safe operating procedure for the use of pile drivers and pile driving equipment.

Legal and Other Requirements

Federal, State, Local Regulations

- American Society of Mechanical Engineers, Pressure Vessels Codes Section VIII
- [California Code of Regulations, Title 8, Subchapter 4, Article 12, §1600-1601](#)
- [OSHA 29 CFR 1926.603 Subpart O - Motor Vehicles, Mechanized Equipment, and Marine Operations - Pile driving equipment](#)

Skanska/Client Requirements

- None

Procedure

1. General Requirements

1. Identify potential risks (overhead power lines, underground utility vaults, unstable ground, existing utilities, etc.) pertaining to driving and cutting piles.
2. Provide adequate manpower for safe execution of all pile driving and cutting activities.
3. Pile paths will be clear. Pile driving work will not occur until verification of underground utilities is completed and existing underground utility locations are verified by hand or vacuum excavation.
4. Identify geologic bearing strata profiles prior to executing pile driving operations.
5. Procure the appropriate pile lengths and place in relation to the geologic bearing profiles to limit excessive pile lengths cut above grade.
6. Loading and offloading of piles or sheets from trucks with beds over six (6) feet high requires fall protection.
7. All employees conducting pile operations above six (6) feet will use one hundred percent (100%) fall protection, including while in a mobile elevating work platform (MEWP).
8. Keep all personnel clear when piling is hoisted into the leads.
9. Outriggers and rubber-tired equipment must be in position to provide maximum stability when in use.
10. Use mats and cribbing for support in cuts, fills or other areas where soil may be unstable
11. Ground operated mechanical pile-headers and remote release shackles shall be the first choice when planning operations.
12. Steam or air supply lines shall have shut off valves within easy reach of operators.
13. Use appropriate support of excavation (SOE) for piles driven in an excavated pit.
14. Keep employees beyond the range of falling materials as steel pipe piles are "blown out."
15. Attach a tag line to steady the blow pipe during operations.
16. Take precautions to prevent exposure to falling objects (cushion blocks, auger spoils, pile chips, and steel debris).
17. Personnel involved with the pile driving operation will not stand in front of the leads while driving piles.
18. Workers guiding piles into the leads, shall not place arms or hands between the pile and the inside guide or on top of the pile.
19. Provide blocking on top of booms to prevent damage to lacing from hoist line whipping.
20. A secured ladder shall extend the height of the rig and be maintained in good condition.
21. Provide stop-blocks for the leads to prevent the hammer from raising against the head-block.
22. Protect employees working below the hammer, by providing a blocking device capable of safely supporting the weight of the hammer. Provide guards across the top of the head-block to prevent the cable from jumping out of the sheaves.
23. When the leads must be inclined in the driving of batter piles, stabilize the leads.
24. Fixed leads will be provided with a ladder, adequate rings and a safety climbing device.
25. Use guardrails to protect leads provided with platforms.
26. Use a closed shackle or a positive means of attachment when hoisting piling to prevent accidental disengagement.
27. Riding the ball, hook or loads is prohibited.

28. A boatswain's chair is not allowed during any pile driving activity.
29. Use a pile extractor if piling cannot be pulled without exceeding the load rating of equipment.
30. Dogs on pile driver hoist drums that automatically disengage either by relieving the load or rotating the drum will be prohibited.
31. Lower pile hammers to the bottom of leads while pile driver is moved.
32. Provide safe access to the top of the crane and any attached power units.
33. A certified and/or qualified signal person shall perform all signaling.
34. Coordinate access into a pile driving area with the pile driving foreman.
35. Secure hose connections with at least one and a quarter (1 ¼) inch diameter chain or equivalent wire rope to prevent whipping.
36. Stirrups will be provided on sheet piling to aid in guiding the pile into place.
37. A driving head or bonnet is required to bell the head for piles other than sheet piles.
38. Provide pit access ladders and edge protection methods to prevent material from falling into the pit.
39. Follow engineered design solutions specific to the pile type/dimensions, including support tab patterns, allowing for safe removal.
40. Review plumb of pile prior to cutting to determine potential for eccentric loading risk.
41. Pile sections more than five (5) feet above grade must be secured, removed and lowered by mechanical means (e.g., loader, excavator, pile driving rig, crane, etc.).
42. Pile sections less than five (5) feet may be manually displaced, using tab utilization process, in conjunction with safe working practices detailed in Construction Work Plan.
43. Establish, when possible, a controlled access zone two and a half (2 ½) times the length of the longest pile that is to be cut during pile top cutting operations.
44. No pile driving activity is to take place within the controlled access zone (CAZ).
45. Any project specific requirements for this section are listed here.
 - None

2. Personal Protective Equipment (PPE)

1. Provide adequate hearing protection based on occupational noise monitoring.
2. When driving creosoted wood piles, hammer impact may spray creosote, injuring the eyes, skin and lungs. Double eye protection, protective suits and respiratory protection may be required.
3. Any project specific requirements for this section are listed here.
 - None

3. Inspection and Maintenance of Pile Driving Equipment

1. The use of metal-armored hoses is recommended when possible.
2. Secure all hose connections with at least one and a quarter (1 ¼) inch diameter chain or equivalent wire rope to prevent whipping or spraying of steam or air.
3. Repair or replace defective air or steam hoses in accordance with the manufacturer's recommendations before reuse.
4. Lubricate all moving parts in the lead in accordance with manufacturer's recommendations.
5. Provide whip checks, or equivalent means, to prevent hoses from thrashing around if couplings disconnect.
6. Check hooks, slings, leads and all other connections for damage and cracking prior to mobilization and periodically during use.
7. Relieve pressure from lines when shutting down rigs.
8. Lower hammer to the base of the leads and block when not in use.
9. Lock and tag out all equipment prior to maintenance operations. Consider steam and/or air pressure.
10. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- None

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- None



Pressurization of Piping Systems

Objective

This chapter is for the pressure testing of piping. Prior to initial operation of piping systems, testing must be conducted to check for leaks. Typically, the types of testing are pneumatic or hydrostatic. Regardless of the testing method used, the testing process is considered dangerous and must be performed with caution. To ensure the safety of personnel and the public, safety precautions must be enacted prior to conducting a test.

Legal and Other Requirements

Federal, State, Local Regulations

- ASME B31.9 – Building Services Piping - ASME B31.9 – Building Services Piping
- NFPA 24.2.2.1 - NFPA 24.2.2.1

Skanska/Client Requirements

- None

Procedure

There must be a detailed plan, completed checklists, and completed test permit prior to any pressurization of piping systems and/or the use of pneumatic plugs. Refer to MCAA Guide to Pressure Testing Safety for sample checklists. The plan (written by the project team or subcontractor, depending on who is performing the pressurization) must, at a minimum, address the following:

1. Reason for pressure test (reference applicable contract requirements and specifications).
2. Planned test pressure
3. Planned duration of test
4. Lock Out-Tag Out program
5. Written procedure for test that includes:
 1. Test site preparations and related precautions including removal of unauthorized personnel, isolation of test site and a determination of the restricted distance for the pressure test. The restricted distance is the distance from the items under test at which barriers and warning signs are placed to prohibit access.
 2. Automatic pressure relieving device (pressure relief safety valve), which must be sized to handle the maximum output of the pressure source and set at not more than 110% of planned test pressure to prevent excessive pressure during testing as well as pipe sized to match the volume of the test piping per ASME standards.
 3. Restraint methods of piping system
 4. Names of test supervisor, participants, and their qualifications/training
 5. Ratings of connections and fittings, including those used solely for testing purposes. They must be rated for pressure equal to or greater than the system piping
 6. An approved/reviewed Construction Work Plan (CWP) and Daily Hazard Analysis (DHA) written for the activity. These plans will be reviewed by the test crew immediately prior to testing.
6. A preconstruction meeting will be held with the contractor and their personnel to review the scope of work and safety documentation. Completed checklists and permits must be reviewed and signed by the project team.
7. Only upon receipt of adequate safety documentation, permits, and checklists shall pressurizing piping systems be authorized to begin.
8. A group of Skanska MEP experts are available to answer questions and provide peer review of subcontractor pressure testing plans and CWPs.

Project Design

- Meetings for testing design: The priority of safe and effective pressure testing will be added to the system design process to include isolation to lower the volume being tested and enable hydrostatic pre-testing, as well as low point drains required for freeze protection and pressurization drain down.
- Contract documents include parameters for pressure testing: Refer to language in contract documents for all testing/pretesting requirements and build pressure testing plans accordingly. Any changes to the pressure testing plan from what is stated in the contract documents need to be reviewed by the project team.

General Pressure Testing Requirements

1. **Test Medium Type:** Prior to initial startup, piping systems shall be tested for leakage in accordance with contract drawings and specifications. Typical leak testing methods consist of hydrostatic, pneumatic, or service. Hydrostatic testing generates considerably less stored energy and thus involves less risk to workers. Pneumatic testing is more dangerous for workers and should be performed only when hydrostatic testing isn't possible.
2. These guidelines must be followed prior to all testing:
 1. Notify personnel of the area to be avoided due to risks during pressure testing.
 2. Create an exclusion/controlled access zone for the work area.
 3. Ensure that personnel conducting the test stand behind a barrier or away from the area of effect during pressurization.
 4. Ensure that pedestrians are re-routed out of the area. Spotters may be needed to re-route pedestrians, if applicable.
 5. Identify the maximum test pressure to be used (typically provided by an engineer or specifications).
 6. Identify the pipe to be tested, per contract specifications and as directed by the engineer of record. Ensure that the system has been completed according to the drawings/specifications and that no ends of the piping system are left open.
 7. Identify any adjacent equipment that could be affected by a failure and isolate or otherwise protect the equipment.
 8. Examine all connections within the testing section prior to the test, per compliance with contract documents and industry standards.
 9. Determine the pressure rating for all connected fittings and devices to ensure they are rated for the maximum test pressure.
 10. Use a calibrated gauge that has the proper pressure range for the test.
 11. Ensure the pipe and fittings used on the test header are rated for the test pressures and that the valves used on the test header are rated appropriately.
 12. Test trees shall be capped with a cap, plug, double block and bleed, or similar device to ensure valve is not solely holding back the test.
 13. Expansion joints and other elements that cannot sustain the reactions due to test pressure shall be provided with temporary restraint or isolated from testing per manufacturer's specifications and contract documents.
 14. Equipment that is not to be subjected to the test pressure shall be isolated from the piping. Flanged joints at which blinds are inserted to isolate equipment need not be tested.
 15. If the test pressure is to be maintained for a period of time during which the test fluid is subject to thermal expansion or any other source of over pressurizing during the test, precautions such as the installation of a relief device shall be taken to avoid excessive pressure.
 16. Ensure that all necessary lock out tag out procedures have been completed.
 17. Verify that all non-essential personnel are clear from the area.
 18. Inform all affected personnel that the test is about to start.

Post Test Requirements

1. Release pressure before attempting to repair any leaks. Never attempt to repair leaks while any part of the system is under pressure.
2. Drain the system. Carefully follow the procedures to safely and gradually release the pressure from the system and collect the waste liquid test medium when required. Caution must be taken to avoid escaping air stream, debris, and high noise levels.
3. Repair any leaks that were found. Lock Out-Tag Out procedures must be followed during leak repair.
4. Retest the system if necessary.
5. Complete any appropriate forms/logs to document test completion/pass.
6. Drain down test pressures at the end of each shift. At no time shall any testing pressure be left on beyond a single shift.

EHS Forms and Documents

- [Hydrostatic Test Checklist](#)
- [Pneumatic Test Checklist](#)
- [Pressure Test Permit](#)

Applicable Training

- **General Awareness:** Any worker that can be affected by the stored energy of a pressure test will need general awareness training about the potential hazards of stored energy in pressure testing.
- **Competency:** Workers who supervise and conduct pressure testing or work on systems that could be under pressure must be able to identify existing and predictable hazards of pressure testing and have the ability and authority to take prompt corrective measures to eliminate them. Competency training will be conducted by contractors before they mobilize to the

site.

- Test Specific Training: All affected workers will get trainings (briefings) about the potential hazards of a specific test, its specifications/location, and how they are to protect themselves from those hazards.

Training Links

- [Toolbox Talk Pressure Testing : General Awareness Training](#)

Potential Related Safety, Health and/or Environmental Aspects

- Lockout Tagout



Rigging

Objective

The following policy and procedures support the safe use, maintenance, and inspection of rigging equipment and associated gear on all projects.

Legal and Other Requirements

Federal, State, Local Regulations

- [California Code of Regulations, Title 8, Subchapter 4, Article 9 §1581-1589](#)
- [OSHA 29 CFR 1926.32 Subpart C - General Safety and Health Provisions - Definitions](#)
- [OSHA 29 CFR 1926.251 Subpart H - Materials Handling, Storage, Use, and Disposal - Rigging equipment for material handling](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 15, §1610-1619.5](#)
- [OSHA 29 CFR 1910.184 Subpart N - Materials Handling and Storage - Slings](#)

Skanska/Client Requirements

- None

Procedure

1. Rigging Plan

1. A detailed rigging plan must be attached to the CWP for all categories of lifts. The rigging plan must be completed by a qualified person and documented on the rigging plan form triggered in lift plan.

2. General Requirements

1. A designated person shall inspect all new rigging equipment before it is placed into service.
2. Visual inspection for damage shall be performed by the user or other designated person prior to each use on each shift and as necessary to ensure there is no damage and is safe to be used. Written records are not required for these inspections.
3. A documented monthly inspection of all rigging shall be completed by a designated person. RFID technology may be used to document monthly inspections.
4. Chains shall not be used for rigging purposes. Chains will not be used for rigging purposes unless the chain is designed and part of a proprietary engineered system. Documentation on the equipment must be attached to the CWP and submitted to Skanska Corporate EHS Department and project team for review.
5. Manufacture requirements must be followed for proprietary system using chains.
6. Any project specific requirements for this section are listed here.
 - None

3. Lifting Devices

1. Any lifting device must be stamped with the (1) maximum working load limit, (2) weight of the device, (3) serial number and (4) manufacturer's name. Skanska fabricated lifting devices must also include date of the load test.
2. Custom below-the-hook lifting devices, as defined by ASME BTH-1, must be designed by a Professional Engineer. Drawings must be made available upon request.
3. Before use, the custom lifting device shall be load tested per the requirements of OSHA, ASME BTH-1, ASME B30.20, or as directed by the Engineer.
4. The load test shall be performed by either a professional testing service or under the supervision of a qualified person at a Skanska facility or project site.
5. All testing documentation must be kept on file at the jobsite.
6. Any project specific requirements for this section are listed here.
 - None

4. Storage

1. All rigging must be properly stored at the end of each shift or when not in use.
2. All rigging will be stored in an area where it will not be subjected to mechanical damage, corrosive action, moisture, direct sunlight, extreme temperatures, or kinking.
3. A storage box will be supplied and designated for rigging storage.

4. Proper storage needs for wire rope rigging shall be determined by the team.
5. Any project specific requirements for this section are listed here.
 - None

5. Synthetic, Round, and Wire Rope Slings

1. Proper use:
 1. Synthetic slings shall not be shortened with knots, bolts, or other makeshift devices.
 2. Sling legs shall not be kinked, crushed or broken.
 3. Slings shall not be loaded in excess of their rated capacities.
 4. Slings used in a basket hitch shall have the loads balanced to prevent slippage.
 5. Slings shall be securely attached to their loads.
 6. Slings shall be padded or protected from the sharp edges of their loads.
 7. Shock loading is prohibited.
 8. All loads shall be placed on dunnage so the load is not resting on the sling.
 9. A competent person shall inspect slings and attachments before and after each lift.
 10. All damaged equipment shall be taken out of service and destroyed to prevent future use.
 11. Any project specific requirements for this section are listed here.
 - None
2. Removal criteria for synthetic web/round slings:
 1. Acid or caustic burns
 2. Melting or charring of any part of the sling surface
 3. Snags, punctures, tears or cuts
 4. Broken or worn stitches or distortion of fittings
 5. Missing or illegible identification tags
 6. Holes, tears, cuts, abrasive wear, or snags that expose the core yarns
 7. Discoloration, brittle, or stiff areas on any part of the sling that may indicate damage
 8. Any project specific requirements for this section are listed here.
 - None
3. Removal criteria for wire rope sling:
 1. Ten randomly distributed broken wires in one rope lay, or five broken wires in one strand in one rope lay
 2. Wear or scraping of one-third the original diameter of outside individual wires
 3. Kinking, crushing, bird caging or any other damage resulting in distortion of the wire rope structure
 4. Evidence of heat damage
 5. Missing or illegible identification tags
 6. Any project specific requirements for this section are listed here.
 - None

6. Hardware

1. Proper Use:
 1. Only hardware that is in compliance with ANSI requirements will be permitted.
 2. Crosby brand shackles recommended.
 3. For long-term installations (i.e. shackles on skips, pans, welding machines, air compressors, concrete buckets, bolt type shackles shall be used.
 4. If screw pin type shackles are used, the pin shall be secured from rotation or loosening.
 5. The screw pin will be fully engaged and in contact with the shackle body.
 6. The load applied to the shackle will be centered in the bow of the shackle to prevent side loading.
 7. Multiple sling legs will not be applied to the shackle pin.
 8. Multiple slings in the body of a shackle will not exceed 120 degrees in angle.
 9. If the shackle is to be side loaded, the rated load will be reduced at a minimum of the manufacturer's specifications (50%) or higher as designated by a qualified person.
 10. The screw pin shackle will not be rigged in a manner that would cause the pin to unscrew.
 11. When a shackle is used in a choker hitch, the pin will be connected to the choking eye of the sling.
 12. Any project specific requirements for this section are listed here.
 - None
2. Steel Sorting/Shake Out
 1. All sorting hooks must have a handle at the top of the hook.



2. Sorting hooks can only be used for shaking out and separating steel.
 3. At no time will sorting hooks be used to fly steel during erecting operations (no higher than chest level).
 4. The competent person shall directly oversee the use of sorting hooks and ensure proper use at all times.
 5. The improper use of sorting hooks will be subject to reprimand.
3. Hardware Removal Criteria
1. Missing or illegible manufacturer's name or trademark and/or rated load identification.
 2. A ten percent (10%) or more reduction of the original dimension.
 3. Indications of bends, twists, distortions, stretching, elongation, cracking or broken load bearing components, excessive nicks, gouges, pitting and corrosion.
 4. Indications of heat damage including weld spatter or arc strikes.
 5. Loose or missing nuts, bolts, cotter pins, snap rings or other fasteners and retaining devices.
 6. Unauthorized replacement components.
 7. Other visible conditions that cause doubt as to the continued use of the hardware.
 8. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- [Monthly Rigging Inspections - Monthly Rigging Inspections](#)

Applicable Training

- Rigging training

Training Links

- [Rigging Safety \[Competent Person\] - Rigging Safety \[Competent Person\]](#)

Potential Related Safety, Health and/or Environmental Aspects

- Concrete and Masonry
- Cranes and Cranes Rigging
- Dropped Object Protection
- Excavation and Trenching
- Housekeeping
- Material Handling and Storage
- Mobile Elevated Work Platforms
- Stairways and Ladders
- Steel Erection
- Temporary Works



Scaffolds

Objective

The purpose of this program is to establish guidelines for working on or around scaffolding. This program will inform employees about the hazards of working with scaffolding, the proper terminology, different types of scaffolds and tagging systems.

Legal and Other Requirements

Federal, State, Local Regulations

- [California Code of Regulations, Title 8, Subchapter 4, Article 21, §1635.1-1637](#)
- [OSHA 29 CFR 1926.452 Subpart L - Scaffolds - Additional requirements applicable to specific types of scaffolds](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 23, §1658-1667](#)
- [OSHA 29 CFR 1926.450 Subpart L - Scaffold Subpart L](#)
- [OSHA 29 CFR 1926.200 Subpart G - Signs, Signals, and Barricades - Accident prevention signs and tags](#)
- [OSHA 29 CFR 1926.454 Subpart L - Scaffolds - Training requirements](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 16, §1621](#)
- [OSHA 29 CFR 1910.145 - ACCIDENT PREVENTION TAGS](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 22, §1640-1655](#)
- American Lumber Standards
- [OSHA 29 CFR 1926.451 Subpart L - Scaffolds - General requirements](#)

Skanska/Client Requirements

- None

Procedure

1. General Requirements

1. Workers who construct scaffolding will be trained in the following:
 - Types of scaffolding hazards: electrical, fall and falling objects
 - Correct procedures for erecting and maintaining scaffolding
 - Maximum intended load and intended use of the scaffold
2. Scaffolds will be securely anchored, set plumb and capable of carrying the maximum intended load without settling or displacement.
3. Identify and label the maximum working load for each scaffold.
 - The maximum intended load is the total load of all persons, equipment, tools, materials, transmitted loads and other anticipated loads to be applied to a scaffold or scaffold component at any one time.
4. All scaffolds must be capable of supporting at least four times the maximum intended load.
5. Unstable objects, such as barrels, boxes, loose brick or concrete blocks, may not be used to support scaffolds or planks.
6. The use of shore or lean-to scaffolding is prohibited.
7. No scaffold may be erected, dismantled or altered except under the supervision of competent persons.
8. Any scaffold component, including braces, brackets, trusses, screw legs, ladders, etc., that has been damaged or weakened in any way must be immediately repaired or replaced.
9. A stair tower, access ladder or equivalent safe access to the scaffold must be provided.
10. Diagonal bracing and scaffold rungs are not to be used to access the scaffold unless their design incorporates an approved ladder.
11. An eighteen (18) gauge screen, a half inch (1/2) wire mesh or equivalent protection must be placed between the toe board and the guardrail when employees must work underneath a scaffold.
12. All wooden load-carrying components of scaffold framing must be a minimum of 1,500 fiber construction grade lumber.
13. All dimensions are nominal sizes as provided in the American Lumber Standards.
14. Scaffold tagging procedures must be followed at all times:
 - Scaffolding will be tagged appropriately during erection, use and dismantle.
 - All scaffolds will have a daily documented inspection by job superintendent or designated competent person

before use.

- Tags will be located at each access point and kept current.

15. Scaffolding Tag Identification Code:

- Red Tag = DO NOT USE. Prohibits use of scaffolding.
- Yellow Tag = NOT ERECTED TO CODE. Indicates restriction or special use conditions of scaffold, i.e., a requirement for fall protection.
- Green Tag = APPROVED FOR USE. Indicates scaffold is erected to all safety standards and company policies and is ready for use.

16. Any project specific requirements for this section are listed here.

17. Scaffold users must comply with all local regulations and training.

- None

2. Planking

1. All wood planking shall be scaffold-grade or equivalent, as recognized by approved grading rules for species of wood used. Laminated planking that provides the equivalent strength of scaffold grade planking is also permitted.
2. The maximum permissible span for two (2) inches by ten (10) inches or wider planks of full thickness undressed lumber is:
 - Ten (10) feet with a working load of twenty-five (25) per square foot (psf)
 - Eight (8) feet with a working load of fifty (50) psf
 - Six (6) feet with a working load of seventy-five (75) psf
3. The maximum permissible spans for two (2) inches by ten (10) inches or wider planks of nominal thickness lumber (not recommended for heavy use) are:
 - Eight (8) feet with a working load of twenty-five (25) psf
 - Six (6) feet with a working load of fifty (50) psf
4. All planking must overlap by a minimum of twelve (12) inches or be secured from movement.
5. Wood scaffold planks must extend over their end supports at least six (6) inches but no more than twelve (12) inches (unless cleated to prevent slipping).
6. All working levels on scaffolds will be fully planked.
7. Any project specific requirements for this section are listed here.
 - None

3. Guardrails and Toe boards

1. Guardrails and toe boards must be installed on all open sides and ends of platforms more than six (6) feet above the ground or floor, except needle beam scaffolds and float scaffolds.
2. Guardrails must be forty-two (42) inches high with a three (3) inch tolerance and a mid-rail. Supports must be at intervals not to exceed eight (8) feet.
3. Toe boards must be at least one (1) inch by four (4) inches lumber or equivalent.
4. Light duty scaffolds shall have guardrails and outriggers installed when possible regardless of height.
5. Any project specific requirements for this section are listed here.
 - None

4. Tubular Welded Frame Scaffolds

1. Cross bracing and/or diagonal bracing is required to secure vertical members laterally.
2. Cross bracing must square and align vertical member to keep scaffolding plumb at all times.
3. All bracing connections must be secure.
4. Legs must be set on adjustable bases, mud sills or other foundations adequate to support the maximum load.
5. Frames will be placed on top of one another using coupling or stacking pins for vertical alignment.
6. Panels will be locked together vertically by pins or other equivalent suitable means to prevent uplifting.
7. Scaffolding will be secured to a structure as required by the design engineer to meet required design criteria.
8. Scaffolds shall be designed by a Professional Engineer licensed in the area of work as required by governing authorities.
9. Upon receipt of shipment of tubular scaffolds, always inspect all components.
10. Any project specific requirements for this section are listed here.
 - None

5. Manually Propelled Ladder Stands and Scaffolds

The design and construction of mobile work platforms (ladder stands) and rolling (mobile) scaffolds (towers) will conform to the following:

1. The designed working load of ladder stands must be calculated on the basis of one or more individuals weighing two-hundred (200) pounds with fifty (50) pounds of equipment per person.

2. Light duty scaffolds must be designed and constructed to carry a working load of twenty-five (25) pounds per square foot.
3. Medium duty scaffolds must be designed and constructed to carry a working load of fifty (50) pounds per square foot.
4. Heavy duty scaffolds must be designed and constructed to carry a working load of seventy-five (75) pounds per square foot.
5. All ladder stands and scaffolds must be capable of supporting at least four (4) times the designed working load.
6. The height of rolling scaffolds will not exceed four (4) times the minimum base dimension.
7. The material selected must be strong enough to meet test requirements and must be protected against corrosion and deterioration.
8. The materials used must meet manufacturer's standards, including strength, dimension and weight specifications, and they must safely support the working load.
9. Nails, bolts and other fasteners used in the construction of ladders, scaffolds and towers must be of adequate size and in sufficient number to develop the designed strength of the unit.
10. Nails must be driven full length.
11. Steps must be fabricated from slip-resistant treads.
12. Leveling of elevated work platforms, screw jacks or other suitable means for adjusting the height must be provided in the base section of each unit.
13. No one will ride rolling scaffolds when they are being moved.
14. Rolling scaffolds will only be used on level surfaces.
15. Caster brakes must be locked when the scaffold is in use or not in motion.
16. Loose material and equipment will be secured or removed before moving scaffold.
17. Any exposed surface must be free of sharp edges, burrs or other hazards.
18. Any project specific requirements for this section are listed here.
 - None

6. Suspended Scaffolds (Swing Stage Scaffold)

1. Suspended scaffolds will not be less than twenty (20) inches nor more than thirty-six (36) inches wide.
2. Wire, synthetic or fiber rope used for scaffold suspension must support at least six (6) times the maximum intended load.
3. Non-conducting, insulated material will be placed over scaffold suspension cables if there is any chance of contact with an electrical arc.
4. Employees working from a two-point suspended scaffold must wear a full body harness and be tied off to an independent lifeline.
5. Multi-stage scaffolds require additional safety suspension lines and fall protection devices.
6. Ropes will be protected from burning or welding operations.
7. Any project specific requirements for this section are listed here.
 - None

7. Stilts

Stilts shall only be used in areas where:

1. Floor surfaces are solid, level and can support stilt work activity.
2. Floor surfaces have been cleared, swept and dry.
3. Stilt workers need to be able move freely and without stepping over or moving around trip hazards.
4. Floor penetrations, stairwells and voids are covered or guarded in such a way that they can be clearly seen by stilt workers.
5. Stilt users shall not walk on stairs or walk backwards.
6. Employer shall provide a safe means of attaching and removing stilts. A rigid platform should be used for mounting /dismounting stilts with the platform at a height equal to or greater than the height of the stilts. Stepladders are not to be used for mounting/dismounting stilts. Stepping up and balancing on one stilt then bending to fit the second is also not acceptable.
7. All equipment and materials required by a stilt worker should be supported by a purpose-built stand (mobile or stationary) that enables the stilt worker to access them without over-reaching or bending down below knee level. The height of the stand should be appropriate for the task being performed.
8. The handling of long, heavy or cumbersome objects or items should be avoided.
9. Any waste produced and material dropped by stilt workers must be promptly cleared from the floor surface they are working on.

- [Scaffolding Inspection - Scaffold Inspection](#)

Applicable Training

- Scaffold user training
- Scaffold erector training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Concrete and Masonry
- Confined and Enclosed Spaces
- Cranes and Cranes Rigging
- Demolition
- Dropped Object Protection
- Fall Prevention and Protection
- Housekeeping
- Material Handling and Storage
- Rigging
- Stairways and Ladders
- Steel Erection
- Temporary Works
- Tools - Hand and Power



Signs, Signals and Barricades

Objective

The purpose of this program is to establish safe working guidelines for using signs, signals and barricades as part of a hazard warning system.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29CFR 1926.200 Subpart G - Signs, Signals, and Barricades - Accident prevention signs and tags](#)
- ANSI D6.1-1971
- [California Code of Regulations, Title 8, Subchapter 4, Article 3 §1523](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 11, §1597-1599](#)
- ANSI Z53.1-1967

Skanska/Client Requirements

- None

Procedure

1. General Requirements

1. The project shall have a consistent means of identifying local or general hazards with appropriate signs, signals or barricades.
2. The signs, signals and barricades must be understandable by all employees, subcontractors and visitors.
3. Any project specific requirements for this section are listed here.
 - None

2. Signs/Signals

1. Signs shall be visible at all times when applicable work is being performed and shall be removed promptly when the purpose for them no longer exists.
2. Danger signs shall be used where an immediate hazard exists and have red as the predominating color for the upper panel, black outline on the borders and a white lower panel for additional sign wording.
3. Caution signs shall be used to warn against potential hazards and have yellow as the dominant color, black upper panel and borders, yellow lettering of "caution" on the black panel and a lower yellow panel for additional sign wording. Black lettering shall be used for additional wording.
4. Exit signs shall be lettered in legible red letters, not less than six (6) inches high, on a white field and the principal stroke of the letters shall be at least three-fourths (3/4) inch in width.
5. Safety instruction signs shall be white with a green upper panel with white letters to convey the principal message. Any additional wording on the sign shall be black letters on the white background.
6. Directional signs, other than automotive traffic signs, shall be white with a black panel and a white directional symbol. Any additional wording on the sign shall be black letters on the white background.
7. Construction areas shall be posted with legible traffic signs at points of hazards.
8. All traffic control signs or signals shall comply with the Manual on Uniform Traffic Control Devices (MUTCD).
9. Accident prevention tags shall be used as a temporary means of warning employees of an existing hazard, such as defective tools, equipment, etc. They shall not be used in place of, or as a substitute for, accident prevention signs.
10. Any project specific requirements for this section are listed here.
 - None

3. Barricades

1. Barricades shall be visible at all times when work is being performed and shall be removed promptly when the hazard no longer exists.
2. Yellow and red chain/rope shall be the preferred method.
3. If barricade tape is to be used, it shall only be reinforced barricade tape.
4. All red danger barricades shall have a sign identifying the hazard that the barricade is protecting.

5. Red and black barricade tape, minimum of two (2) inches wide, shall be used to designate an area of danger.
6. Employees are not allowed to enter a red barricaded area without permission from the supervisor/crew responsible for the hazard in that area.
7. Yellow and black barricade tape, minimum of two (2) inches wide, shall be used to designate an area of caution.
8. Employees shall be allowed to move through an area marked with caution tape once the hazard is identified.
9. Any project specific requirements for this section are listed here
 - None

EHS Forms and Documents

- None

Applicable Training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Asbestos Inclusive of Naturally Occurring Asbestos
- Community Impacts Transportation, Traffic Circulation & Economic
- Confined and Enclosed Spaces
- Cranes and Cranes Rigging
- Demolition
- Dropped Object Protection
- Excavation and Trenching
- Fall Prevention and Protection
- First Aid, Emergency Services, Bloodborne Pathogens
- Hazard Communication
- Hazardous Materials and Waste Management
- Heavy Metals (Lead, Arsenic, Cadmium, Hexavalent Chromium)
- Housekeeping
- Infectious Disease Prevention and Response
- Lockout Tagout
- Maintenance and Protection of Traffic
- Materials and Waste Management
- Noise Exposure
- Noise and/or Vibration
- Polychlorinated Biphenyls - PCBs
- Pressurization of Piping Systems
- Respiratory Protection
- Sanitation
- Scaffolds
- Silica
- Stairways and Ladders
- Temporary Works



Stairways and Ladders

Objective

The purpose of this program is to establish rules regarding the proper design and the safe use of stairways and ladders on our projects.

Legal and Other Requirements

Federal, State, Local Regulations

- [California Code of Regulations, Title 8, Subchapter 4, Article 17, §1623-1626](#)
- [OSHA 29 CFR 1926.1051 Subpart X - Stairways and Ladders - General requirements](#)
- [OSHA 29 CFR 1926.1052 Subpart X - Stairways and Ladders - Stairways](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 18 §1629-1631](#)
- [California Code of Regulations, Title 8, Subchapter 5, Group 1, Article 11, §2395.1-2395.118](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 16, §1620-1621](#)
- [OSHA 29 CFR 1926.1060 Subpart X - Stairways and Ladders - Training](#)
- [OSHA 29 CFR 1926.1053 Subpart X - Stairways and Ladders - Ladders](#)
- [OSHA 29 CFR 1926.1050 Subpart X - Stairways and Ladders - Scope](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 25, §1675-1678](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 1 §3207-3299](#)

Skanska/Client Requirements

- [ANSI A14 1992 Job Made Wooden Ladders](#)

Procedure

Ladders Last

1. Prior to beginning work, the crew will evaluate all tasks that require individuals to work from elevated heights. It is the expectation that these tasks shall be performed using methods other than using a ladder. Portable scaffold devices, scissor lifts, scaffold towers, podium ladders (acceptable only with the top rail at least thirty (30) inches above the platform), lift pods, etc. are the preferred method to performing work at heights.
2. A-Frame Ladder use will be allowed only when it has been determined by the crew in conjunction with Skanska USA Civil, Inc. project management that it is not feasible to use any other options to complete the task. If it is determined that a ladder must be used, the need shall be documented in the Construction Work Plan.
3. General Requirements
 1. Where there is a break in access elevation of nineteen (19) inches or more a stair/step must be installed.
 2. Workers must maintain three (3) points of contact at all times when climbing or descending from a ladder.
 3. Fall protection is required when an employee's feet are at or above the sixth rung from the bottom.
 4. Manufactured ladders are not to be modified without manufacturer's consent.
 5. Ladder rungs, cleats and steps must be parallel, level and uniformly spaced.
 6. Ladders must not be tied or fastened together to create longer sections.
 7. During pit excavations, a job-built ladder will be used to accommodate the adding of additional rungs as the depth of the excavation increases.
 8. Two or more separate ladders used to reach an elevated work area must be offset with a platform or landing between the ladders.
 9. Wooden ladders will not be painted, except for identification or warning labels placed only on one face of a side rail.
 10. Metal ladders are prohibited on all job sites.
 11. Ladders will not be used in a horizontal position for use as platforms, runways or scaffolds.
 12. The minimum clear distance between side rails for all portable ladders is eleven and a half (11 ½) inches.
 13. All stepladders must have a metal spreader or locking device.
 14. Stepladders may not be used in any configuration other than completely open, locked in place and sitting on firm, level ground.

15. Where access is required for elevation difference of thirty (30) feet or greater, ladders are not permitted.
16. All ladders must be used per the manufacturer's requirements.
17. Portable ladders must be capable of supporting at least four (4) times the maximum intended load, except Type 1A (Extra Heavy Duty), which must sustain 3.3 times the maximum intended load.
18. Any project specific requirements for this section are listed here.
 - None

4. Ladder Safety Practices

Setup and Use

1. When ladders are used to access an upper landing, the side rails must extend at least three (3) feet above the upper landing. An employee can walk through the ladder by gripping the side rails while stepping onto the landing.
2. When an extension is not possible, the ladder must be secured at the top to a rigid support that will not deflect and a grasping device, such as a grab rail, will be provided to assist employees in accessing the ladder.
3. The grasping device must be close enough for an employee to reach without stooping or stretching.
4. Under no circumstance may the extension cause the ladder to deflect under a load or slip off its support.
5. Non-self-supporting ladders must be angled so that the horizontal distance from the top support to the toe of the ladder is approximately one-quarter (1/4) the working length of the ladder.
6. Ladders must be maintained free of oil, grease and other slipping hazards.
7. Ladders must not be loaded beyond the maximum intended load or beyond the manufacturer's rated capacity.
8. Ladders must be used only for the purpose for which they were designed.
9. Ladders must be used only on stable and level surfaces unless secured to prevent accidental displacement.
10. Ladders must not be used on slippery surfaces unless secured or provided with slip-resistant feet to prevent accidental displacement. Slip-resistant feet must not be used as a substitute for care in placing, lashing or holding a ladder that is used upon slippery surfaces.
11. A physical barrier must be placed around ladders that are located in passageways, doorways or driveways to keep the activities or traffic away from the ladder.
12. The area around the top and bottom of ladders must be kept clear of debris.
13. The top of a non-self-supporting ladder must be placed with the two (2) rails supported equally unless it is equipped with a single support attachment.
14. Ladders must not be moved, shifted or extended while occupied.
15. The top or top step of a stepladder must not be used as a work platform.
16. Cross-bracing on the rear section of stepladders must not be used for climbing unless the ladders are designed for and provided with steps for climbing on both front and rear sections.
17. Single-rail ladders must not be used.
18. Ladders will be tied, blocked or otherwise secured to prevent displacement.
19. Any project specific requirements for this section are listed here.
 - None

5. Housekeeping

1. Electrical cords, air hoses, welding leads and other obstructions will not impede access at the top or bottom of ladder.
2. Should the ladder be located in an area susceptible to mud, water or snow, it will be inspected prior to use and relocated as needed.
3. In areas where muddy conditions are present, crushed stone and/or grating will be located at the bottom to prevent slipping while climbing.
4. Any project specific requirements for this section are listed here.
 - None

6. Ladder Inspection and Repair

1. At least every shift a competent person will inspect ladders each shift for visible defects and address any situation that may have affected their safe use. Job-built ladders will be inspected each shift and documented each week with a tag.
2. Portable and fixed ladders with structural defects must be withdrawn from service by immediately removal from the project site or marking the ladder in a manner that readily identifies it as defective and tagging it with "Do Not Use" or similar notices.
3. A ladder can also be removed from service by blocking it with plywood or other attachment that spans several rungs.
4. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- Competent person training
- General awareness training

Training Links

- [Ladder Safety \[Competent Person\] - Ladder Safety \[Competent Person\]](#)
- [Ladder Safety--Every Step Counts \[Competent Person\] - Ladder Safety--Every Step Counts \[Competent Person\]](#)
- [Stairways and Ladders - Construction \[Competent Person\] - Stairways and Ladders - Construction \[Competent Person\]](#)

Potential Related Safety, Health and/or Environmental Aspects

- Concrete and Masonry
- Confined and Enclosed Spaces
- Cranes and Cranes Rigging
- Demolition
- Dropped Object Protection
- Excavation and Trenching
- Fall Prevention and Protection
- Hazard Communication
- Housekeeping
- Material Handling and Storage
- Mobile Elevated Work Platforms
- Rigging
- Scaffolds
- Signs, Signals and Barricades
- Steel Erection
- Temporary Works



Steel Erection

Objective

The purpose of this program is to establish safe working practices for all employees associated with steel erection activities.

Legal and Other Requirements

Federal, State, Local Regulations

- [California Code of Regulations, Title 8, Subchapter 4, Article 20 §1635](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 29 §1709-1722.1](#)
- [OSHA 29 CFR 1926 Subpart R - Steel Erection](#)
- ANSI Z359-1-2007
- [OSHA 29 CFR 1926 Subpart M Fall Protection](#)

Skanska/Client Requirements

- None

Procedure

1. General Requirements

1. All workers engaged in steel erection activities shall follow Skanska's one hundred percent (100%) fall protection requirements when working from heights. Regulatory height requirements may vary by jurisdiction and be more restrictive, but in no circumstance shall any worker be exposed to an unprotected fall greater than (six) feet.

2. Preconstruction Requirements

1. A written steel erection plan must be developed and approved.
2. Verification and sign off on concrete foundations and/or piers reaching design strength must be provided to steel erector prior to commencement of steel erection.
3. Skanska's Notice to Commence Steel Erection form shall be completed prior to any steel erection.
4. Complete a Construction Work Plan and Lift Plan prior to all steel erection activities.

3. Steel Erection Crane Activities

1. Preplan all overhead crane lifting operations to prevent lifting over personnel.
2. Coordinate all steel deliveries with Skanska to ensure pedestrian/vehicular traffic around the project is controlled.
3. No deliveries shall be unbound/unloaded until inspected and deemed secure by a qualified person.
4. Inspect loads to ensure there are no sharp edges that will cut into lifting slings. Use softeners where needed.
5. Use a tag line on all loads.
6. During the placement of solid web structural members, the load will not be released from the crane hoisting line until the members are secured with no less than two (2) bolts or the equivalent at each connection and drawn up wrench tight.
7. Multiple lifts (Christmas treeing) shall only be performed if the following criteria are met:
 - A multiple lift rigging assembly is used.
 - A maximum of five (5) members are hoisted per lift.
 - Only beams and similar structural members are lifted.
 - They are rigged at least seven (7) feet apart.

4. Decking Operations

1. Metal decking bundles shall be landed on adequately supported framing members.
2. Metal decking shall be secured against displacement at the end of the shift or when environmental/jobsite conditions require.
3. All openings shall be decked over. Where large size, configuration or other structural design does not allow openings to be decked over (such as elevator shafts, stair wells, etc.) employees shall be provided with appropriate fall protection equipment.

5. Dropped Object Prevention

1. Covers for roof/floor openings shall be capable of supporting, without failure, twice the weight of the employees, equipment and materials that may be imposed on the cover at any one time.
2. All covers shall be secured to prevent accidental displacement by the wind, equipment or employees.
3. All covers shall be painted with high-visibility paint or shall be marked with the word "HOLE."
4. Wire mesh, exterior plywood or equivalent, shall be installed around columns where planks or metal decking do not fit tightly. The materials used must be of sufficient strength to provide fall protection for personnel and prevent objects from falling through.
5. All materials, equipment and tools shall be secured against accidental displacement.
6. The controlling contractor shall prohibit other construction activities below steel erection.
7. Containers shall be provided for storing or carrying bolts, nuts and drift pins and secured against accidental displacement.
8. Impact wrenches shall be provided with a locking device for retaining the socket.
9. All workers engaged in steel erection activities shall follow Skanska's one hundred percent (100%) fall protection requirements when working from heights of six (6) feet or greater (including where local thresholds are more stringent). Regulatory height requirements may vary by jurisdiction and be more restrictive, but in no circumstance shall any worker be exposed to an unprotected fall greater than six (6) feet, including but not limited to connecting, decking and bolt up crews.
10. Establish controlled access zones when necessary utilizing physical barriers.
11. Safety signs will be posted where necessary to keep people out of danger areas (i.e., Workers Overhead). Projecting or protruding reinforcing rods that create tripping or falling hazards will be bent or covered. Commercially available rebar caps or job-built protection devices significant enough to provide impalement protection will be used.
12. Before cutting any large or heavy structural steel member, the member will be secured or supported by ropes, cables or other means to prevent dropping or uncontrolled swinging.
13. A tag line will be attached to all loads.
14. All openings in floors, temporary or permanent, will be securely planked over or guarded and properly marked as a "FLOOR OPENING."
15. Keep working area in orderly condition with necessary equipment and materials safely arranged. Unused material should be properly stored at all times.
16. Lateral lines for perimeter guarding and anchorage for personal fall arrest systems should be installed on the ground before the lift.
17. A safety railing of five-sixteenths (5/16) of an inch wire rope or equal will be installed, approximately forty-two (42) inches high (not less than 42 inches nor more than 45 inches), around the perimeter of all temporary-planked or temporary metal-decked floors during structural steel assembly.
18. Bright colored flagging should be tied to the railing at not more than six (6) foot intervals to increase visibility.
19. Any project specific requirements for this section are listed here.
 - None

6. Steel Assembly

1. A safety guardrail system shall be installed around the perimeter of all temporary-planked or temporary metal-decked floors during structural steel assembly. It shall be five-sixteenths (5/16) of an inch wire rope or equal, approximately forty-two (42) inches high (not less than 42 inches nor more than 45 inches), and a midrail equidistant between the top rail and the steel. Toe boards will be installed. Bright colored flagging shall be tied to the top cable railing at six (6) foot intervals to increase visibility.
2. Horizontal lifelines for personal fall arrest systems shall be installed on the ground before the lift.
3. Keep working areas in orderly condition with necessary equipment and materials safely arranged. Unused material shall be properly stored at all times.
4. The permanent floors (i.e., concrete) shall be installed as the erection of structural members progresses. There shall be not more than eight stories between the erection floor and the upper-most permanent floor.
5. At no time shall there be more than four (4) floors or forty-eight (48) feet, whichever is less, of unfinished bolting or welding above the foundation or uppermost permanently secured floor.
6. A fully planked/decked floor or nets shall be maintained within two (2) stories or thirty (30) feet, whichever is less, directly under any erection work being performed.
7. All columns shall be anchored by a minimum of four (4) anchor bolts/rods.
8. All columns shall be evaluated by a competent person to determine whether guying or bracing is needed.
9. Anchor bolts/rods shall not be repaired, replaced or field-modified without the approval of the structural engineer of record.
10. Solid web structural members used as diagonal bracing shall be secured by at least one (1) bolt per connection drawn up wrench-tight or the equivalent as specified by the project structural engineer of record.

11. Utilize physical barriers and signage to establish controlled access zones.
12. Power sources shall be secured and hose lines shall be bled off before disconnecting tools or hose sections.
13. Whip checks and positive protection shall be installed on all airline hose connections/fittings.
14. When plumbing-up a building, related equipment shall be placed so that connection points are accessible.
15. Equipment used in plumbing-up shall be properly secured at all times.
16. Plumbing-up equipment shall be removed only with the approval of a competent person.
17. Turn buckles shall be secured to prevent unwinding under stress.
18. During the placement of any solid web structural members, the load will not be released from the hoisting line until the members are secured with no less than two (2) bolts or the equivalent at each connection and drawn up wrench tight.
19. Containers will be provided for storing or carrying bolts, nuts and drift pins, and secured against accidental displacement when aloft.
20. When bolts or drift pins are being knocked out, means shall be provided to keep them from falling.
21. Impact wrenches will be provided with a locking device for retaining the socket.
22. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- [Notice to Commence Steel Erection - Notice to Commence Steel Erection](#)

Applicable Training

- None

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Concrete and Masonry
- Cranes and Cranes Rigging
- Demolition
- Dropped Object Protection
- Fall Prevention and Protection
- Fire Prevention and Protection
- First Aid, Emergency Services, Bloodborne Pathogens
- Hazard Communication
- Housekeeping
- Inclement Weather and Lightning
- Material Handling and Storage
- Mobile Elevated Work Platforms
- Motor Vehicles and Mechanized Equipment
- Noise Exposure
- Noise and/or Vibration
- Pile Driving
- Rigging
- Scaffolds
- Signs, Signals and Barricades
- Stairways and Ladders
- Temporary Works
- Tools - Hand and Power
- Welding and Cutting



Temporary Works

Objective

The purpose of this program is to ensure that all "temporary works" or "false works," such as temporary shoring, platforms, walkways or scaffolds, required for the construction of the "permanent works" are identified and the appropriate criteria are executed.

Legal and Other Requirements

Federal, State, Local Regulations

- [California Code of Regulations, Title 8, Subchapter 4, Article 17, §1623-1626](#)
- [OSHA 1926 Subpart P- Excavations - Falsework](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 20 §1635](#)
- [OSHA 1926 Subpart Q - Concrete and Masonry Construction - Falsework](#)
- [OSHA 29 CFR 1926.450 Subpart L - Scaffolds - General requirements](#)

Skanska/Client Requirements

- [ANSI A14 1992 Job Made Wooden Ladders](#)

Procedure

1. Operations shall take steps to ensure that all temporary works are adequately deployed and maintained for their intended use.
2. Fit for purpose review must take place prior to installing temporary works systems.
3. Review must include the application requirements with design engineers for task-specific design and review of manufacturer's specifications for proprietary systems.
4. The documented design of the temporary works by a competent engineer or manufacturer, including working drawings and specifications, must be maintained on site and available for review.
5. Temporary works shall be identified on project schedules as part of the project look-ahead and risk assessment process.
6. Temporary works shall be assembled by qualified persons per the engineer's or manufacturer's designed criteria.
7. Temporary works shall be inspected daily by a competent person prior to use and tagged at all access points.
8. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- Temporary works general awareness
- Qualified persons training
- Manufacturer recommended training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Concrete and Masonry
- Demolition
- Dropped Object Protection
- Fall Prevention and Protection
- Fire Prevention and Protection
- Hazard Communication
- Material Handling and Storage

- Mobile Elevated Work Platforms
- Rigging
- Scaffolds
- Signs, Signals and Barricades
- Stairways and Ladders
- Steel Erection
- Tools - Hand and Power



Tools - Hand and Power

Objective

The purpose of this program is to establish safe work practices for the proper use and maintenance of hand and power tools.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1910.243 Subpart P - Hand and Portable Powered Tools and Other Hand-Held Equipment - Guarding of portable powered tools.](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 26 §1680-1682](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 28 §1693-1708](#)
- [OSHA 29 CFR 1926.303 Subpart I Tools - Hand and Power - Abrasive wheels and tools](#)
- [OSHA 29 CFR 1926.304 Subpart I Tools - Hand and Power - Woodworking tools](#)
- [OSHA 29 CFR 1926.302 Subpart I Tools - Hand and Power - Power-operated hand tools](#)
- [OSHA 29 CFR 1910.242 Subpart P - Hand and Portable Powered Tools and Other Hand-Held Equipment General Requirements - Hand and portable powered tools and equipment, general](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 6 §3940-4086](#)
- [OSHA 29 CFR 1926.301 Subpart I Tools - Hand and Power - Hand tools](#)
- [California Code of Regulations, Title 8, Subchapter 5 §2299-2989](#)
- [OSHA 29 CFR 1926.300 Subpart I Tools - Hand and Power - General requirements](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 8 §4184-4647](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 27 §1684-1692](#)
- [29 CFR 1910.240 Subpart P - Hand and Portable Powered Tools and Other Hand-Held Equipment - Authority for 1910 Subpart P](#)
- [29 CFR 1926.403 Subpart K - Electrical Cord Repair](#)
- <https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.403>

Skanska/Client Requirements

- None

Procedure

1. General Requirements

1. Maintain all hand and power tools in a safe condition and visually inspect prior to each use
2. Power tools equipped with belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains or other reciprocating, rotating or moving parts of equipment will be properly guarded.
3. Impact tools, such as drift pins, wedges, and chisels will be kept free of mushroomed heads.
4. The wooden handles of tools will be kept free of splinters or cracks and will be kept tight in the tool.
5. Any project specific requirements for this section are listed here.
 - None

2. Power Operated Hand Tools

1. Refer to the manufacturer's instruction manual prior to using all power operated tools.
2. Electric power operated tools will either be the approved double-insulated type or grounded.
3. Comply with electrical section regarding requirements for the use of ground fault circuit interrupters (GFCI).
4. Electric power operated tools will have free-spinning clutches designed to protect against wrist injuries.
5. Do not use a power tool with broken or defective insulation on the cord, defective plugs, or loose or broken switches.
6. The use of electric cords for hoisting or lowering tools is not permitted.
7. Power tools with secondary handles must be used according to the manufacturer's requirements.
8. All components on the tool must be compatible per the manufacturer's requirements.
9. Before changing out wheels/blades or bits, disconnect the power cords or remove the battery power pack.

10. If using a gas-powered tool, considerations should be made for exhaust in enclosed working spaces.
11. Any project specific requirements for this section are listed here.
 - None

3. Powder Actuated Tools

1. Loading:

1. Tools will not be loaded until just prior to the intended firing time.
2. The tool will be tested each day before loading to see that the safety devices are in proper working condition. The method of testing will be in accordance with the manufacturer's recommended procedure.
3. Any project specific requirements for this section are listed here.
 - None

2. Use:

1. Only trained individuals are permitted to use powder actuated tools and proof of training must be carried on the individual at all times.
2. The lowest velocity to suit the specific task/working material shall be used at all times.
3. Neither loaded nor empty tools are to be pointed at any employees.
4. Keep hands clear of the open barrel end.
5. Loaded powder actuated tools shall never be left unattended.
6. Fasteners will not be driven into very hard or brittle materials, including, but not limited to, cast iron, glazed tile, surface-hardened steel, glass block, face brick or hollow tile.
7. Sufficient backing must be in place to prevent the pin or fastener from passing completely through the surface.
8. No fastener will be driven into a spalled area.
9. The operator will never fasten closer than three (3) inches from the edge of masonry work.
10. Ensure that the masonry work be at least three (3) times as thick as the fastener penetration.
11. Tools will not be used in an explosive or flammable atmosphere.
12. All tools will be used with the correct shield, guard or attachment recommended by the manufacturer.
13. Ensure that all tools are required with constant pressure switch that will shut off the power when the pressure is released.
14. Safety glasses and face shields are required when using powder actuated tools.
15. Any tool found not in proper working order or that develops a defect during use, will be immediately removed from service, tagged out and not used until properly repaired or replaced.
16. Any project specific requirements for this section are listed here.
 - None

3. Charge Storage:

1. Live loads/cartridges must be stored in an approved, locked storage cabinet.
2. Unfired loads shall be disposed of per manufacturer's recommendations.
3. Explosive charges shall not be disposed of in trash containers or left unattended.
4. Any project specific requirements for this section are listed here.
 - None

4. Pneumatic/Hydraulic Tools

1. Ensure that all couplings are installed properly.
2. All hose-connections shall be inspected before each use and periodically throughout the operation.
3. All hoses shall be inspected prior to each use by looking for bends, kinks or swelled areas.
4. Worn out hoses shall be removed from service. Duct tape is not to be used for repairs.
5. Hoses under pressure must be a reinforced wire braided type.
6. Couplings under pressure shall not be disconnected unless specifically designed.
7. Hoses that are not in service shall be stored properly.
8. Hoses will not be placed in access ways or across ladder passage. Where this is unavoidable, lines should be rerouted, blocked over or otherwise protected.
9. Hoses placed across vehicle roadways will be protected by means of modular hose protectors, manmade jobsite ramps, protection boards, such as wood blocking (two (2) inches by four (4) inches, four (4) inches by four (4) inches) engineered to withstand a minimum of ten (10) tons per wheel.
10. Whip checks will be used on all hoses and tools to prevent against the hazards when uncoupling occurs.
11. Whip checks will be properly positioned on the hose based on the maximum working pressure not exceeding two hundred (200) pounds per square inch (PSI).

1. Hoses up to one and a half (1 ½) inches in diameter require a three-sixteenths (3/16) whip check.
2. Hoses up to three (3) inches in diameter require a one-quarter (1/4) inch whip check.
3. Hoses four (4) inches in diameter require a three-eighths (3/8) inch whip check.
12. If the hose diameter is larger than four (4) inches or the pressure is greater than two hundred (200) PSI, consult the manufacturer and/or jobsite engineering department for proper protection.
13. All hose clamps must be crimped into place. Double band clamps can be used per the manufacturer's recommendations.
14. Hoses with worn gear clamps shall be tagged and taken out of service.
15. Ensure safety clips or other wire-type retainers are used at the fittings and the flanges are lined up properly.
16. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- Powder-actuated tool training

Training Links

- [Hand & Power Tools \[Competent Person\] - Hand & Power Tools \[Competent Person\]](#)

Potential Related Safety, Health and/or Environmental Aspects

- None



Welding and Cutting

Objective

The purpose of this program is to establish guidelines to protect employees from the hazards of welding and cutting and the compressed gases used in these operations.

Legal and Other Requirements

Federal, State, Local Regulations

- [California Code of Regulations, Title 8, Subchapter 4, Article 32 §1739-1743](#)
- [OSHA 29 CFR 1910.251 - Subpart Q - Welding, Cutting, and Brazing - Definitions](#)
- [OSHA 29 CFR 1926.134 Subpart I - Personal Protective Equipment - Respiratory Protection](#)
- [OSHA 29 CFR 1926.351 Subpart I - Welding and Cutting - Arc welding and cutting](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 3 §1508-1527](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 2 §3300-3416](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 4 §1528-1537](#)
- [OSHA 29 CFR 1926.352 Subpart I - Welding and Cutting - Fire prevention](#)
- [OSHA 29 CFR 1926.350 Subpart J - Welding and Cutting - Gas welding and cutting](#)
- [OSHA 29 CFR 1926.353 Subpart J - Welding and Cutting - Ventilation and protection in welding, cutting, and heating](#)
- [OSHA 29 CFR 1926.252 Subpart H - Materials Handling, Storage, Use, and Disposal - Disposal of waste materials](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 10 §4794-4848](#)

Skanska/Client Requirements

- None

Procedure

1. Compressed Gas Handling, Storage and Use

1. All cylinder valve assemblies shall be protected when not in use.
2. Cylinders will be moved by tilting and rolling them on their bottom edges. They will not be intentionally dropped, struck or permitted to strike each other violently.
3. Valve protection caps will not be used for lifting cylinders from one vertical position to another. Bars will not be used under valves or valve protection caps to pry cylinders loose when frozen.
4. Secure cylinders in an upright position. Use carriers/carts and isolate them from welding and cutting operations.
5. Cylinders, when transported by vehicle, will be transported in an upright position.
6. When hoisting cylinders, they will be secured on manufacturer engineered and approved carts or designed for hoisting to ensure they are fully secure. They will not be hoisted or transported by means of magnets or choker slings.
7. Do not hoist individual cylinders with a chain or a choker sling.
8. Compressed gas cylinders must be stored in accordance with applicable regulatory requirements.
9. Cylinders should be stored in designated areas away from elevators, stairs or gangways.
10. Storage areas will be located where cylinders will not be knocked over or damaged.
11. Cylinders will not be kept in unventilated enclosures.
12. Storage of propane inside a building is prohibited.
13. Gas fuel hoses with potential for accumulation and release of fuel gas shall be stored in a secured, ventilated storage box.
14. Carts will have half-hour fire-resistant wall between cylinders.
15. Fuel gas and oxygen manifolds must be located in well-ventilated areas.
16. Do not take oxygen, acetylene or other gas cylinders into a confined space.
17. Reverse flow check valves will be installed at the torch end.
18. Flashback arrestors will be installed at both the torch end and the regulator.
19. Inspect hoses and fittings daily and replace damaged hoses to prevent leaking gases. Leaking equipment shall be repaired or replaced.

20. Keep hoses, cables and other equipment clear of passageways, ladders and stairs.
21. Place cylinders away from the work, so that sparks, hot slag or flame cannot reach them.
22. Use only approved regulators, gauges and torches.
23. Use only friction lighters, "strickers," to ignite torches. Butane lighters are not allowed as an ignition source.
24. "Crack" (open and close quickly) all cylinder valves to remove any dirt or dust, prior to connecting a regulator.
25. Keep all hose, regulators, cylinders, valve protection caps, couplings, apparatus and torch connections free of grease and oil.
26. Do not weld or cut on any containers that have contained toxic or flammable materials.
27. Do not place anything on or near a manifold or cylinder top that may interfere with prompt shutoff in case of an emergency.
28. When shutting down a system make sure to shut off regulators and bleed lines.
29. Do not use oxygen for cleaning off surfaces, ventilation or blowing dust from clothing.
30. Any project specific requirements for this section are listed here.
 - None

2. Arc Welding and Cutting Safe Practices and Procedures

1. A welding hood must be properly attached to a hard hat and in place before striking an arc and during welding.
2. Wear safety glasses under the hood or shield.
3. When leaving electrode holders unattended, remove the electrode and place the holder in a place so that electrical contact will not occur.
4. The welding machine should be shut off when not in use or if it is being moved.
5. Use noncombustible or flameproof screens to protect employees and others from arc flash whenever practical.
6. Rod stubs shall be placed in a metal container.
7. Do not use cables with repairs or splices within ten (10) feet of the holder unless the insulation is valued equivalent to the original.
8. Do not weld on any drum or container that has contained gasoline, oils or other flammable liquids.
9. Use appropriate hearing protection when performing plasma arc welding or cutting.
10. Any project specific requirements for this section are listed here.
 - None

3. Ventilation

1. Ventilation must be sufficient to supply respirable air to the welder and to passersby.
2. Natural ventilation is considered sufficient when the above restrictions are not present.
3. Any project specific requirements for this section are listed here.
 - None

4. Respiratory Protection

1. Welding and gas cutting generate carbon monoxide, carbon dioxide and nitrous gases. When these potentially hazardous materials are present in amounts that exceed OSHA's permissible exposure limits, and engineering controls are not sufficient to eliminate the hazard, appropriate respiratory protection will be provided. An air-purifying respirator will not protect you from carbon monoxide, carbon dioxide and toxic gases.
2. Refer to the Respiratory Protection section of this EHS Manual.
3. Refer to the Safety Data Sheet (SDS) for all products being used to determine what toxic materials the process may emit.
4. Any project specific requirements for this section are listed here.
 - None

5. Eye Protection

1. Welders shall wear filter lenses to protect their eyes against infrared and ultraviolet light.
2. When feasible, screens or barriers shall be utilized around welding operations. If not feasible employees within thirty (30) feet will need appropriate eye protection.
3. The guide below shows shade numbers of filter lenses and their application:

Welding Operation	Shade Number
Shielded metal-arc welding 1/16, 3/32, 1/8, 5/32-inch diameter electrodes	10
Gas-shielded arc welding (non-ferrous) 1/16, 3/32, 1/8, 5/32-inch diameter electrodes	11
Gas-shielded arc welding (ferrous) 1/16, 3/32, 1/8, 5/32-inch diameter electrodes	12
Shielded metal-arc welding 3/16, 7/32, 1/4 inch diameter electrodes	12
5/16, 3/8-inch diameter electrodes	14
Atomic hydrogen welding	10-14
Carbon arc welding	14
Soldering	14
Torch brazing	3 or 4
Light cutting, up to one inch	3 or 4
Medium cutting, 1 inch to 6 inches	4 or 5
Heavy cutting, over 6 inches	5 or 6
Gas welding (light), up to 1/8 inch	4 or 5
Gas welding (medium), 1/8 inch to 1/2 inch	5 or 6
Gas welding (heavy), over 1/2 inch	6 or 8

4. Any project specific requirements for this section are listed here.

- None

6. Fire Protection

1. Prior to commencing any hot work operation, workers must thoroughly inspect area to make sure that there are no combustible materials nearby. Clear and maintain a minimum twenty-five (25) foot radius.
2. Institute a hot work permit.
3. Workers will keep a fire extinguisher within thirty (30) feet of their work area.
4. A thorough visual inspection of the work area should be made after each shift (a minimum 1/2 hour) to make sure that combustible material is not smoldering and that all equipment has been shut down and properly secured. Consideration should be given to areas above and below hot work operations.
5. A fire watch will be assigned and stationed with a fire extinguisher. More than one fire watch/extinguisher may be required if the hot work operation could impact more than one floor.
6. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- [Hot Work Permit - Hot Work Permit](#)

Applicable Training

- None

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- None

Environmental



Archaeological, Cultural and Historic

Objective

To prevent any negative impacts and preserve all significant archaeological, cultural and historically sensitive areas on our projects.

Target

Impact Significant Reasons

- None

Legal and Other Requirements

Federal, State, Local Regulations

- [National Historic Preservation Act \(NHPA\) of 1996](#)
- [30 CFR Part 800 – Protection of Historic Properties](#)
- [Archaeology Resource Protection Act of 1979](#)
- [Archaeology and Historic Preservation Act of 1974](#)

Skanska/Client Requirements

- None

Procedure

1. Each project team shall develop, implement and maintain project-specific protection and preservation programs inclusive of controls to mitigate potential negative impacts to archaeological, cultural and historically sensitive areas in the work zone. Teams will monitor and document plan compliance and periodically review for effectiveness.
 1. Review project specifications and drawings to determine if there are any archaeological, cultural and historically sensitive areas.
 2. Perform or review preconstruction surveys of sensitive areas in order to identify potential impacts. The surveys may include areas outside the project boundaries.
 3. Collect preconstruction photographic documentation of sensitive areas.
 4. Secure required regulatory permits, and comply with permit stipulations.
 5. Communicate archaeological, cultural and historical protection and preservation plan to internal and external stakeholders, and update them on changes and impacts regularly.
 6. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- Regulatory training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- None



Community Impacts Transportation, Traffic Circulation & Economic

Objective

To evaluate construction-related activities and develop programs that will mitigate negative impacts to utility services, (e.g., water, power, sewage and fiber optics) and disruptions to the community.

Target

Impact Significant Reasons

- None

Legal and Other Requirements

Federal, State, Local Regulations

- Department of Transportation Permits
- Environmental Permits
- Environmental Impact Statement (EIS)
- Preconstruction Traffic Studies

Skanska/Client Requirements

- None

Procedure

1. Each project team shall develop, implement and maintain project-specific programs to mitigate potential impacts on transportation, traffic circulation and the economy in the community. Teams will monitor and document plan compliance, and periodically review for effectiveness.
 1. Review project specifications and drawings to determine if operations will impact the transportation, traffic circulation or economy of the surrounding community.
 2. Conduct or review preconstruction traffic surveys.
 3. Communicate the mitigation plan to internal and external stakeholders, and update them on changes and impacts periodically.
 4. Secure required regulatory permits, and comply with permit stipulations.
 5. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- Regulatory inspection requirements

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Biodiversity Protection
- Community Impacts Utilities
- Concrete and Masonry
- Cranes and Cranes Rigging
- Demolition
- Excavation and Trenching

- Hazard Communication
- Material Handling and Storage
- Materials and Waste Management
- Motor Vehicles and Mechanized Equipment
- Noise Exposure
- Noise and/or Vibration
- Sanitation
- Signs, Signals and Barricades
- Spills and Leaks
- Water Impacts



Community Impacts Utilities

Objective

To evaluate construction-related activities and develop programs that will mitigate negative impacts to utility services, (e.g., water, power, sewage and fiber optics) and disruptions to the community.

Target

Impact Significant Reasons

- None

Legal and Other Requirements

Federal, State, Local Regulations

- Department of Transportation permits
- [Utility locates / Call before you dig](#)

Skanska/Client Requirements

- Community Action Plan
- Preconstruction survey

Procedure

1. Each project team shall develop project-specific environmental programs to mitigate potential impacts on the community associated with the disruption of vital utilities and services associated with gas, water, steam and sewer as it relates to the scope of work.
 1. Review project specifications and drawings to determine if there are any operations that potentially impact the utilities of the surrounding area.
 2. Conduct preconstruction utility surveys.
 3. Ensure that all potential impacts on utilities of the surrounding areas are communicated to project stakeholders.
 4. Ensure required plans are developed and implemented and maintained.
 5. Identify and procure required regulatory permits.
 6. Periodically review the effectiveness of plans and programs.
 7. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- None

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Biodiversity Protection
- Community Impacts Transportation, Traffic Circulation & Economic
- Community Impacts Utilities
- Concrete and Masonry
- Cranes and Cranes Rigging
- Demolition

- Excavation and Trenching
- First Aid, Emergency Services, Bloodborne Pathogens
- Hazard Communication
- Heat and Cold Related Illness
- Heavy Metals (Lead, Arsenic, Cadmium, Hexavalent Chromium)
- Infectious Disease Prevention and Response
- Maintenance and Protection of Traffic
- Material Handling and Storage
- Materials and Waste Management
- Motor Vehicles and Mechanized Equipment
- Noise Exposure
- Noise and/or Vibration
- Radiation
- Respiratory Protection
- Sanitation
- Signs, Signals and Barricades
- Silica
- Spills and Leaks
- Water Impacts



Hazardous Materials and Waste Management

Objective

To institute work practices that minimize the amount of hazardous materials used or hazardous waste generated on our projects.

Target

Impact Significant Reasons

- None

Legal and Other Requirements

Federal, State, Local Regulations

- [Resource Conservation and Recovery Act](#)
- 29 CFT 1910.120/1926.65
- [Superfund Amendment and Reauthorization Act Title III – Right to know](#)
- 49 CFR 172
- [USDOT HM 126F/181](#)

Skanska/Client Requirements

- Waste Reports
- Material Specific Management/Abatement Programs (i.e. Heavy Metal, PCB'S, VOC/Semi-VOC HASP's, Hazardous Chemical Plan)

Procedure

1. Each project team shall develop, implement, and maintain project-specific environmental programs to mitigate potential negative impacts associated with hazardous waste and materials as it relates to the scope of work. Monitor and document plan compliance, and periodically review for effectiveness.
 1. Review project specifications and drawings to determine if any operations may generate hazardous waste or utilize hazardous materials.
 2. Conduct or review preconstruction surveys.
 3. Communicate mitigation plan to internal and external stakeholders, and update them on changes and impacts periodically.
 4. Secure required regulatory permits, and comply with permit stipulations.
 5. Properly calibrate and maintain all monitoring equipment.
 6. Educate the employees via toolbox talks, project orientation or DHAs regarding hazardous waste and waste management on the project site.
 7. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- Regulatory training requirements (e.g., RCRA waste management)
- HAZWOPER response/technician/supervisor
- Spill response training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Asbestos Inclusive of Naturally Occurring Asbestos
- Demolition
- Environmental Compliance Plan (ECP)
- Excavation and Trenching
- Hazard Communication
- Hazardous Materials and Waste Management
- Heavy Metals (Lead, Arsenic, Cadmium, Hexavalent Chromium)
- Indoor Air Quality
- Material Handling and Storage
- Materials and Waste Management
- Outdoor Air Quality
- Polychlorinated Biphenyls - PCBs
- Respiratory Protection
- Spills and Leaks
- Water Impacts
- Welding and Cutting



Materials and Waste Management

Objective

To reduce the upfront demand on materials placed into our projects and minimize the amount of solid waste generated on site.

Target

Impact Significant Reasons

- None

Legal and Other Requirements

Federal, State, Local Regulations

- None

Skanska/Client Requirements

- For projects pursuing LEED/EnVision certification, follow USGBC or ISI requirements
- Environmental Compliance Program
- Green Strategic indicator – landfill diversion rate

Procedure

1. Each project team shall develop, implement and maintain a project-specific Construction Waste Management Plan to ensure effective materials management and promote the diversion of recyclable materials from landfills. Monitor and document plan compliance, and periodically review for effectiveness.
 1. Review project specifications and drawings to determine if any operations may present opportunities to reduce, reuse or recycle materials.
 2. Communicate the plan to internal and external stakeholders, and update them of changes and impacts periodically.
 3. Educate the employees via project orientation, monthly toolbox talks or DHAs regarding materials and waste management.
 4. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- None

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Biodiversity Protection
- Community Impacts Utilities
- Confined and Enclosed Spaces
- Cranes and Cranes Rigging
- Cranes and Cranes Rigging - Subcontractor
- Dropped Object Protection
- Electrical
- Excavation and Trenching

- Fall Prevention and Protection
- Fire Prevention and Protection
- Housekeeping
- Indoor Air Quality
- Noise and/or Vibration



Noise and/or Vibration

Objective

To properly plan for and control noise or vibration generating activities to mitigate any negative impacts to surrounding communities.

Target

Impact Significant Reasons

- None

Legal and Other Requirements

Federal, State, Local Regulations

- Work hour restrictions
- Local noise ordinances

Skanska/Client Requirements

- Work hour restrictions (e.g., project specifications, permit stipulations other contract conditions)
- Truck route restrictions

Procedure

1. Each project team shall develop, implement and maintain project-specific noise and vibration programs to mitigate negative impacts. Monitor and document plan compliance, and periodically review for effectiveness.
 1. Review project specifications and drawings to determine if any operations may create any noise or vibration risk.
 2. Conduct or review preconstruction ambient noise and vibration monitoring.
 3. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- None

Training Links

- [Hearing Safety \[Competent Person\] - Hearing Safety \[Competent Person\]](#)

Potential Related Safety, Health and/or Environmental Aspects

- Community Impacts Transportation, Traffic Circulation & Economic
- Concrete and Masonry
- Cranes and Cranes Rigging
- Demolition
- Excavation and Trenching
- Hazard Communication
- Housekeeping
- Material Handling and Storage
- Mobile Elevated Work Platforms
- Motor Vehicles and Mechanized Equipment
- Noise Exposure

- Pile Driving
- Steel Erection
- Welding and Cutting



Outdoor Air Quality

Objective

To maintain healthy air quality in the communities surrounding our project sites.

Target

Impact Significant Reasons

- None

Legal and Other Requirements

Federal, State, Local Regulations

- [Clean Air Act](#)
- [National Emission Standards for Hazardous Air Pollutants \(NESHAP\)](#)
- [National Ambient Air Quality Standards \(NAAQS\)](#)
- [40CFR part 63, Subpart C- List of Hazardous Air Pollutants](#)
- Local law regulations

Skanska/Client Requirements

- Envision
- Material/equipment specific management programs
- LEED
- Project specifications

Procedure

1. Each project team shall develop, implement and maintain project-specific environmental programs to mitigate potential negative impacts to outdoor air quality. Monitor and document compliance with the plan, and periodically review for effectiveness.
 1. Review project specifications and drawings to determine if any operations may contribute to negative outdoor air quality.
 2. Conduct or review potential sources of dust, such as equipment exhaust, dust caused by wind erosion, and demolition activities, etc.
 3. Secure required regulatory permits, and comply with permit stipulations.
 4. Properly calibrate and maintain all monitoring equipment.
 5. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- Monitoring equipment use and calibration training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Community Impacts Transportation, Traffic Circulation & Economic
- Cranes and Cranes Rigging

- Excavation and Trenching
- Hazard Communication
- Maintenance and Protection of Traffic
- Motor Vehicles and Mechanized Equipment
- Noise and/or Vibration
- Outdoor Air Quality



Spills and Leaks

Objective

To exercise caution when utilizing substances that have the potential to cause a negative environmental impact when released on land, into the atmosphere or in the water.

Target

Impact Significant Reasons

- None

Legal and Other Requirements

Federal, State, Local Regulations

- [Resource Conservation and Recovery Act](#)
- Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) 1910.120(a)(1)(i-v) and 1926.65(a)(1)(i-v)
- [State Wetlands Information Tool](#)
- [Oil Pollution Act](#)
- Comprehensive Environmental Response Compensation and Liability Act
- [Section 311\(j\)\(1\)\(c\) Clean Water Act](#)
- [Superfund Amendment and Re-authorization Act Title III - Right to know](#)
- [40 CFR 112 – SPCC Regulations](#)

Skanska/Client Requirements

- Emergency Action Plan
- Equipment Maintenance Program
- Environmental Compliance Program
- HQ Spill Reporting Protocol

Procedure

1. Each project team shall develop, implement and maintain project-specific environmental programs related to potential spills and leaks. Monitor and document program compliance, and periodically review for effectiveness. The plan shall include, at a minimum:
 1. Daily/weekly/quarterly inspections
 2. Equipment maintenance reports/repairs
 3. Waste storage inspections
 4. Waste disposal/manifesting reports
 5. Training requirements
 6. Spill kits and fire extinguishers
 7. Environmental incident reports
 8. Corrective and preventive action plans and closure reports
 9. Monitor and measure the adequacy of controls, and evaluate effectiveness
 10. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- Spill response training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Community Impacts Transportation, Traffic Circulation & Economic
- Concrete and Masonry
- Electrical Safety
- Excavation and Trenching
- First Aid, Emergency Services, Bloodborne Pathogens
- Hazard Communication
- Hazardous Materials and Waste Management
- Heavy Metals (Lead, Arsenic, Cadmium, Hexavalent Chromium)
- Materials and Waste Management
- Motor Vehicles and Mechanized Equipment
- Polychlorinated Biphenyls - PCBs
- Potential and Unforeseen/Take 5 Conditions (e.g. Spills / Leaks)
- Respiratory Protection
- Sanitation
- Water Impacts



Water Impacts

Objective

To reduce the demand for potable water and manage storm water runoff in order to reduce the negative impact on water resources.

Target

Impact Significant Reasons

- None

Legal and Other Requirements

Federal, State, Local Regulations

- Storm Water Pollution Prevention Plan (SWPPP)
- Clean Water Act
- 33 CFR Ch. II
- National Environmental Policy Act (NEPA)
- National Pollution Discharge Elimination System (NPDES)

Skanska/Client Requirements

- Environmental Compliance Plan
- For projects pursuing LEED/Envision certification, refer to USGBC or ISI requirements

Procedure

1. Each project team shall develop, implement and maintain project-specific programs to mitigate potential negative impacts on water resources. Monitor and document compliance with the program, and periodically review for effectiveness.
 1. Review project specifications and drawings to determine if any operations require the use of potable water or the management of storm water (e.g., dewatering, dust suppression, tire wash, temporary irrigation, street sweeping, erosion sediment control), and assess the opportunities to use this effluent.
 2. Properly identify all potential impacts to water bodies.
 3. Secure required regulatory permits, and comply with permit stipulations (e.g., effluent sampling, erosion and sedimentation controls).
 4. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- Regulatory training requirements

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Community Impacts Transportation, Traffic Circulation & Economic
- Excavation and Trenching
- Hazard Communication
- Hazardous Materials and Waste Management

- Heavy Metals (Lead, Arsenic, Cadmium, Hexavalent Chromium)
- Materials and Waste Management
- Motor Vehicles and Mechanized Equipment
- Pile Driving
- Polychlorinated Biphenyls - PCBs
- Spills and Leaks

Health



Asbestos Inclusive of Naturally Occurring Asbestos

Objective

The purpose of this program is to ensure that all employees are safeguarded from the occupational health and safety risks associated with asbestos.

Legal and Other Requirements

Federal, State, Local Regulations

- [NESHAPS 40 CFR Part 61](#)
- [OSHA 29 CFR 1926.1101](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 4 §1532.3](#)
- [OSHA 29 CFR 1910.134](#)
- [OSHA 29 CFR 1910.1001](#)
- EPA 600/4-80-005
- EPA 40 CFR 260-265

Skanska/Client Requirements

- None

Procedure

1. General Requirements:

1. Prior to commencing work, survey the existing conditions to identify naturally occurring asbestos (NOA) and asbestos-containing building materials (ACBM) that may be disturbed by project activities.
2. Communicate the location of asbestos to all employees whose work activities may contact asbestos containing material (ACM), presumed asbestos containing material (PACM) or NOA.
3. Only certified employees and licensed contractors may disturb ACM or PACM.
4. Review area monitoring and/or personal exposure monitoring and communicate results to employees in adjacent areas.
5. Communicate the locations of and authorized entrant requirements pertaining to regulated areas.
6. Use signs and labels to identify all ACM and/or PACM work areas that may be disturbed during construction in accordance with OSHA 29 CFR 1926/1910.
7. Any project specific requirements for this section are listed here.
 - None

2. Identification and Disturbance of Naturally Occurring Asbestos:

1. Prior to engaging in any geo-technical or sub-surface investigative work (e.g., drilling, pile driving, test pitting, mechanical breaking of rock, etc.) refer to the project's geo-technical survey. If the project has not conducted a survey and it is possible to collect a sample of the rock, the rock is to be analyzed by a certified laboratory to determine the presence of NOA.
2. If NOA exists on the project and will be disturbed, the project team must create, implement and maintain an Asbestos Control Plan detailing the approach to mitigate inhalation exposures and reduce the amount of fibers from the rock being released into the atmosphere. The topics of the plan may include the following:
 - Introduction and scope of work
 - Construction work plan
 - Dust control plan
 - Employee exposure control plan
 - Worksite specific respiratory protection plan
 - Engineering controls
 - Personal protective equipment
 - Administrative controls

- Material handling
 - Personal hygiene
 - Waste management
 - Analytical results
 - Logistics map
 - Contract documents and drawings
3. Any project specific requirements for this section are listed here.
- None

3. Asbestos-Containing Building Materials:

1. Prior to any renovation or demolition activities, an AHERA (or equal) certified building inspector shall conduct a survey for all potentially impacted materials.
2. Share the asbestos survey report with all personnel on site and keep a copy on site for reference.
3. Assume materials not sampled are asbestos-containing until proven otherwise.
4. If additional suspect materials are identified during the project, all work must stop immediately and the materials must be sampled for asbestos by a certified inspector.
5. Only a licensed contractor will remove, repair or clean up asbestos-containing building materials.
6. Prepare an emergency response plan in the event that ACM is disturbed by anyone other than a licensed contractor.

EHS Forms and Documents

- None

Applicable Training

- Asbestos awareness training

Training Links

- [Asbestos Awareness \[Competent Person\] - LMS Course ID 00005507 - Health effects of asbestos types recognition of damaged or deteriorated Asbestos Containing Materials \(ACM\) work practice requirements to avoid disturbance of ACM and proper response to fiber release episodes](#)

Potential Related Safety, Health and/or Environmental Aspects

- Concrete and Masonry



First Aid, Emergency Services, Bloodborne Pathogens

Objective

The purpose of this program is to ensure that all employees are provided proper medical treatment and are safeguarded from the occupational health and safety risks associated with bloodborne pathogens.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.50 Subpart D Occupational Health and Environmental Controls - Medical services and first aid](#)
- [OSHA 29 CFR 1910.1030 Subpart Z Toxic and Hazardous Substances - Bloodborne pathogens](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 3 §1512](#)

Skanska/Client Requirements

- Emergency Action Plan (EAP)
- Bloodborne Pathogen Control Plan

Procedure

1. First Aid Requirements:

1. Skanska and each subcontractor shall have, at all times, a minimum of one (1) employee per shift trained in first aid/CPR/AED and bloodborne pathogens in accordance with 29 CFR 1926.50 Subpart D.
2. The EAP shall include, at a minimum:
 - Contact details and maps to the nearest clinic or hospital
 - Communication systems in the event of a medical emergency

2. First Aid Station:

1. Employees shall not eat, drink, smoke, apply cosmetics or lip balm, or handle contact lenses at the First Aid Station.
2. A fully stocked first aid kit in accordance with ANSI-Z308.1-1978 must include:
 - An eye-wash station capable of at least a fifteen (15) minute flush
 - Running water, hot (if feasible) and cold
 - CPR resuscitation masks and non-latex gloves as PPE for first aid providers

3. First Aid and AED Supplies:

1. Each site shall have at least one (1) first aid kit. Evaluate the workplace to determine the need for additional kits, different types of supplies or any additional quantities according to location, size, number of employees, etc.
2. Check contents of the first aid kit prior to initial use and thereafter on a weekly basis, and replace any expended and expired items.
3. Place the contents of the first aid kit in a weatherproof container with individually sealed packages.
4. Provide access to an AED on each site
5. Any project specific requirements for this section are listed here.
 - None

4. Bloodborne Pathogens:

1. Employees who work at job sites that have the following conditions have the potential for exposure to bloodborne pathogens:
 - Effluent waste in Waste Water Pollution Control Plants
 - Effluent drained on ground when plumbers hook up to sewer systems
 - Contaminants in restrooms when plumbers complete hook ups
 - Exposure to contaminants in portable toilets
 - Exposures to the following as a result of an injury:
 - Human blood components
 - Body fluid visibly contaminated with blood
 - Any unfixed tissue or organ (other than intact skin)
2. Any project specific requirements for this section are listed here.

- None

5. Bloodborne Pathogen Control Plan:

1. Maintain an exposure control plan on the project site consisting of:
 - Identification of all job classifications with occupational exposure, without regard to the use of personal protective equipment
 - The procedure for evaluating circumstances surrounding an exposure incident
 - The process for disinfecting manageable contaminated surface areas (no more than four (4) square feet)
 - The contact information for the firm contracted to manage larger contaminated areas

6. Site Preparation and Engineering Controls

1. Train employees involved in the decontamination procedures according to 29 CFR 1910.1030.
2. Post highly visible warning signs at the entrance of the contaminated area.
3. Don the following personal protective equipment at all times within the contaminated work area.
 - Eye protection, such as splash goggles, safety glasses with solid side shields or full-face shields
 - Rubber utility gloves (preferred) or disposable gloves (single use)
 - Rubber boots or boot covers
 - Protective outer clothing, such as impervious coveralls, bibs or aprons
 - Respiratory protection
4. Employees shall not eat, drink, smoke, handle contact lenses or apply cosmetics inside contaminated areas.
5. After clean up, remove PPE and wash hands with soap and running. Use antiseptic hand wipes or gels in conjunction with clean cloth/paper towels in the absence of hand washing facilities or water.
6. Seal all infectious waste materials in double-bagged, heavy-duty trash bags and tag or mark them as hazardous materials prior to removal from the contaminated area.

7. Hard Surface Cleaning and Disinfection

1. Remove liquid blood or fluids by blotting with absorbent pads, paper towels or absorbent materials, such as kitty litter or diatomaceous earth powder.
2. Thoroughly clean affected areas with a disinfectant solution.
3. Apply disinfectant to the cleaned surface and allow it to remain wet for at least ten (10) minutes, then wipe dry or air dry.
4. Decontaminate all infectious materials, including cleaning supplies or materials contaminated with blood or body fluids by wetting thoroughly with disinfectant prior to being placed in biohazard bags for disposal.

8. Regulated Waste Disposal

1. Place materials soiled with blood or bodily fluids, such as paper towels, cloths, sponges and mop heads, in double-bagged trash bags, sealed with tape, labeled and disposed of as hazardous materials in accordance with local and state regulations.
2. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- First Aid/CPR/AED Training
- Bloodborne pathogen awareness training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- First Aid, Emergency Services, Bloodborne Pathogens



Hazard Communication

Objective

The purpose of this program is to communicate the hazards associated with chemicals on the jobsite to all affected employees.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.59 Subpart D Occupational Health and Environmental Controls - Hazard Communication](#)
- [OSHA 29 CFR 1910.1200 Subpart Z Toxic and Hazardous Substances - Hazard Communication](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 16, Article 109 §5139-5223](#)
- [Global Harmonization Standard Revision 9 – 2021](#)
- [ANSI/ASSP A10.49-2015 Control of Chemical Health Hazards in Construction and Demolition Operations](#)

Skanska/Client Requirements

- None

Procedure

1. Train all employees on the proper use, storage, labeling and disposal of chemicals in the work place.
2. Properly label all chemicals, including laboratory bottles, solvent cans and dispensers. All information contained on labels must comply with federal, state and local laws and/or regulations and include the identity of the chemical products or substances in the container, hazard warnings and names and addresses of the manufacturer or the responsible parties. Replace all illegible labels. Chemicals that can be classified "For Immediate Use" meaning under the control of and used during that shift only by the person who transfers it from the labeled container are exempted from the stated labeling procedures.
3. In storage areas where similar chemical products are stored, signs or placards to identify the material may be posted in lieu of container labels.
4. If any hazardous materials are transferred from a storage tank or container through a pipeline, affix labels with the required information to the line at the discharge point (valve).
5. If a chemical product other than that specified on the container label is placed in a container, relabel the container to accurately reflect the hazards of the current contents.
6. Provide all employees access to safety data sheets (SDS) for chemicals in the work place.
7. All contractors must maintain a master chemical inventory list for chemicals brought on site.
8. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- [Chemical Master Inventory and Substance form](#)

Applicable Training

- Annual Hazard Communication training

Training Links

- [HazCom--In Sync with GHS \[Competent Person\] - HazCom--In Sync with GHS \[Competent Person\]](#)

Potential Related Safety, Health and/or Environmental Aspects

- Asbestos Inclusive of Naturally Occurring Asbestos
- Concrete and Masonry
- Confined and Enclosed Spaces
- Cranes and Cranes Rigging
- Demolition

- Dropped Object Protection
- Electrical
- Excavation and Trenching
- Fall Prevention and Protection
- Fire Prevention and Protection
- First Aid, Emergency Services, Bloodborne Pathogens
- Heat and Cold Related Illness
- Heavy Metals (Lead, Arsenic, Cadmium, Hexavalent Chromium)
- Housekeeping
- Illumination - Project Lighting
- Inclement Weather and Lightning
- Infectious Disease Prevention and Response
- Lockout Tagout
- Maintenance and Protection of Traffic
- Material Handling and Storage
- Mobile Elevated Work Platforms
- Motor Vehicles and Mechanized Equipment
- Noise Exposure
- Noise and/or Vibration
- Pile Driving
- Polychlorinated Biphenyls - PCBs
- Pressurization of Piping Systems
- Respiratory Protection
- Rigging
- Sanitation
- Scaffolds
- Signs, Signals and Barricades
- Silica
- Spills and Leaks
- Stairways and Ladders
- Temporary Works
- Tools - Hand and Power
- Welding and Cutting



Heat and Cold Related Illness

Objective

The purpose of this program is to establish safe working guidelines when employees are working in hot or cold environment that could result in an injury or illness.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.28 Subpart C General Safety and Health Provisions - Personal protective equipment](#)
- [OSHA 29 CFR 1917.95 Subpart E Marine Terminals - Personal Protection](#)
- [OSHA 29 CFR 1910.141 Subpart J Occupational Safety and Health Standards - Sanitation](#)
- [OSHA 29 CFR 1926.50 Subpart D Occupational Health and Environmental Controls - Medical services and first aid](#)
- [OSHA 29 CFR 1910.132 Subpart I Personal Protective Equipment - General requirements](#)
- [OSHA Technical Manual Section III: Chapter 4 - Heat Stress](#)
- [OSHA 29 CFR 1926.21 Subpart C General Safety and Health Provisions - Safety training and education](#)
- [OSHA 29 CFR 1915.152 Subpart I Occup. Safety and Health Standards for Shipyard Employment - Personal Protective Equipment](#)
- [OSHA 29 CFR 1904.7 Subpart C Recording and Reporting Occupational Injuries and Illness - General recording criteria](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 2, Article 10 §3395](#)

Skanska/Client Requirements

- None

Procedure

1. General Requirements

1. Evaluate work environment to identify potential exposures to hot or cold conditions.
2. Acclimate all employees to the ambient temperatures prior to working a full work schedule.
3. Train employees in the recognition of a heat or cold related illness and have a means to initiate emergency response.
4. Remind employees to drink plenty of water throughout the work shift.
5. Any project specific requirements for this section are listed here.
 - None

2. Hot Environment

1. Provide one or more accessible shaded areas in accordance with local requirements.

The amount of shade present shall be at least enough to accommodate the number of employees on recovery or rest periods, so that they can sit in a normal posture fully in the shade without having to be in physical contact with each other. The shade shall be located as close as practicable to the areas where employees are working.
2. Structures such as bridges, false work, etc. can be utilized as shaded areas.
3. During a heat wave, supervisors shall closely observe all employees. For purposes of this section only, "heat wave" means any day in which the predicted high temperature for the day will be at least eighty-five (80 degrees Fahrenheit and at least ten (10) degrees Fahrenheit higher than the average high daily temperature in the preceding five (5) days.
4. Supervisors shall closely observe all employees in accordance with local requirements, who have been newly assigned or returning to work after prolonged absence to a high heat area for the first fourteen (14) days.
5. Any project specific requirements for this section are listed here.
 - None

3. Cold Environment

1. Employees shall wear layered clothing.
2. Establish areas where employees can warm up.
3. Closely observe employees to identify signs of frost bite or hypothermia.
4. Provide winter hard hat liners during times of cold weather.
5. Employees shall wear insulated gloves (water resistant if necessary) to protect the hands.
6. Project teams shall monitor the weather conditions during a winter storm and have a reliable means of communicating

with workers in order to stop work or evacuate when necessary.

7. Any project specific requirements for this section are listed here.

- None

EHS Forms and Documents

- None

Applicable Training

- Heat and cold illness awareness training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- None



Infectious Disease Prevention and Response

Objective

This section of the EHS Manual establishes guidelines concerning prevention and response concerning infectious disease to limit the exposure of the project and subcontractor employees at work in order to reduce illness of employees as well as safeguard against the spread of diseases such as influenza, norovirus and COVID-19.

Legal and Other Requirements

Federal, State, Local Regulations

- None

Skanska/Client Requirements

- Project Response Investigations

Procedure

According to the World Health Organization, infectious diseases are caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi; the diseases can be spread, directly or indirectly, from one person to another.

I. Prevention

1. Zero-Tolerance Policy and Work Force Communication

- a. The project observes a zero-tolerance policy for coming to work while feeling unwell and exhibiting any of the following symptoms: onset of fever, cough (usually dry), headache, muscle and joint pain, sore throat and a runny nose, shortness of breath or any other flu-like symptom. The individual is not permitted to return to the project or office until they are no longer ill or are able to secure a release from their healthcare provider, certifying that they can return to work without risk to others.
- b. Distribute notice of zero-tolerance policy to all employees, subcontractors and partners explaining the expectation on their commitment to the program. Include a summary of the policy during site orientations, morning meetings and part of the DHA process.
- c. Review all related Toolbox talks with Skanska and subcontractor employees on site such as *Understanding the Novel Coronavirus and Preventative Guidelines*. In the case of a potential outbreak (see below item Response to an Outbreak of an Infectious Disease) Toolbox talks are to be reviewed by crews with as few as possible employees gathering in one area.

2. Identification Of High Risk Areas

- a. A team consisting of the project superintendent, project manager, and onsite EHS will meet to identify potential exposure areas for the spread of infectious disease. Areas for consideration are lunch rooms, break areas, kitchens, bathrooms (temporary and permanent), shared computers/work stations, meeting rooms, water stations, shared equipment/vehicles, high capacity transportation (buses/vans), and highly trafficked storage areas / Conex boxes.
- b. The team will implement strategies for preventing exposure within the identified areas.

3. Implement Strategy For Preventing Exposure

- a. Clean and disinfect high-touch surfaces frequently as determined by project leadership depending on current occupancy of the space. Examples of high-touch surfaces include but are not limited to tables, hard backed chairs, doorknobs, handles, light switches, toilets, and sinks.
 - Use cleaning products effective against infectious disease. If these products are not available, a diluted household bleach solution can be used of 5 tablespoons (1/3rd cup) bleach per gallon of water or 4 teaspoons bleach per quart of water.
 - Personnel involved with cleaning/disinfecting activities will wear disposable nitrile gloves over the standard cut level 3 gloves and other PPE as required by the manufacturer of the disinfecting agent. The nitrile gloves are disposed of after each cleaning. The personnel involved in cleaning will be familiarized with the cleaning agent's required contact time to ensure the agent is used effectively.
- b. Assess all available hand wash stations and consider providing additional locations for easier and more frequent hand washing with soap and water. Promote hand washing with soap and water for at least 20 seconds and thoroughly drying after hands have been cleaned.
- c. Clean bathroom facilities and hand wash stations at a frequency commensurate with the current occupancy of the space. Inspect these facilities regularly to ensure availability of soap, hand towels or air dryer and hand sanitizer.

- d. Add stations with commercially available hand sanitizer containing 60% alcohol and or sanitizing wipes to jobsite entrances, break areas, common use computers/workstations, and high traffic or storage areas.
- e. Sanitizing wipes should be available in shared-use vehicles and equipment used by multiple operators, ex: a shared job truck, golf cart, or forklift.
- f. Disinfect vehicles transporting multiple employees such as vans or shuttles frequently and as a minimum at the end of each shift. Clean surfaces of service/fleet vehicles, steering wheel, gear shift, instrument panels, etc.; use aerosol sanitizers inside closed cabs.
- g. Provide sanitizing wipes at break areas and promote daily cleansing of eye wear, cell phones, radios and hard hats.
- h. All single use products for cleaning or personal hygiene such as paper towels, sanitizing wipes or tissues must be disposed of after use in trash receptacles and not carried on the person or left behind on surfaces.

4. Response to an Outbreak of an Infectious Disease:

According to the Center for Disease Control an outbreak refers to an increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area. Therefore project leadership, in coordination with onsite EHS and project superintendent, must determine the point at which there has been an onsite outbreak unless otherwise directed by Regional leadership or Regulatory Authority.

- a. **Reduction of Personnel On-Site:** The project superintendent, project manager, and onsite EHS will meet to discuss Skanska project staffing requirements and create a staffing plan.
 - Personnel who can conduct their job responsibilities remotely will work from a remote location unless otherwise directed by project leadership.
 - Skanska personnel directly involved in the day to day management of field operations report to the jobsite as usual unless otherwise directed by project leadership.
- b. **Implement Social Distancing:** The following guidelines should be evaluated to potentially reduce the size of groups.
 - Suspend or stagger start times of stretch and flex- and/or implement multiple starting locations to reduce the number of personnel gathering in one area.
 - Stagger times for coffee and lunch breaks throughout the day.
 - Stagger times for transporting employees to or from the job site (vans/ shuttles) and reduce the number of employees in transit at one time within a vehicle.
 - Remove common potable water sources such as drinking fountains and water coolers as appropriate. If common water sources are removed ensure water is available for employees by other means such as providing single use water bottles.
- c. **In-person, Non-Essential Meetings:** Suspend entirely or reduce attendance for meetings/gatherings that are non-essential. Consider conducting virtual meetings/teleconferences. All essential meetings will be determined by project leadership.
- d. **In-person, Non-Essential Site tours or visits:** Suspend entirely or reduce attendance for job tours / site visits that are non-essential. All essential visits and tours will be determined by project leadership.
 - Examples of non-essential site tours may include: job tours by external stakeholders, subcontractor or vendor promotional meetings, public groups, student visits, political visits, etc.

II. Response Action Levels:

1. Risk Profile:

In response to an outbreak of an infectious disease, projects shall use the following risk profiles to prepare workplaces to limit or eliminate the transfer of infectious diseases.

OSHA (in OSHA publication 3990-03 2020-Guidance on Preparing Workplaces for COVID-19) identifies the following four worker exposure risk levels: Lower Risk (Caution), Medium, High and Very High. Infectious diseases like COVID-19 are spread primarily from person to person through respiratory droplets produced when an infected person coughs or sneezes. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.

Lower Exposure Risk (Caution) includes work that does not require contact with people known to be, or suspected of being, infected nor does the work require frequent close contact with (i.e., within six feet of) the general public. Workers in this category have minimal occupational contact with the public and other coworkers.

Medium Exposure Risk includes work that requires frequent and/or close contact with (i.e., within six feet of) people who may be infected, but who are not known or suspected patients. In areas without ongoing community transmission, workers in this risk group may have frequent contact with travelers who may return from international locations with widespread disease transmission. In areas where there is ongoing community transmission, workers in this category may have contact be with the general public (e.g., in schools, high-population-density work environments, and some high-volume retail settings).

The **High and Very High Risk** levels generally apply to workers involved in healthcare (e.g., doctors, nurses etc.).

morgue/ mortuary, medical transport and medical laboratory testing activities.

Additional resources can be found in the following protocols developed for the Safety Stand Down - Implementing project site guidelines to minimize COVID-19 exposure risk:

- Project Activity Risk Assessment (PAA)
- Mitigation Strategies/Considerations
- General Jobsite Guidance/Recommendations

2. Criteria for initiating a Project Response Investigation

- a. In the event an individual or individual(s) on a project site has come into close contact (as defined by CDC – see below) with someone who has tested positive for an infectious disease, the project team must notify the account manager, regional HR, and general manager. Note the CDC defines close contact as one of the following:

Being within approximately 6 feet (2 meters) of an infected person for a prolonged period of time; close contact can occur while caring for, living with, visiting, or sharing a healthcare waiting area or room with a confirmed case – or –

Having direct contact with infectious secretions of an infected person (e.g., being coughed on).

- b. Additionally, a Project Response Investigation must be completed by the project team. The project superintendent, project manager, and EHS manager will be responsible for the completion of the investigation (see form entitled **Skanska USA Civil, Inc. Project Response Investigation Requirements**)

EHS Forms and Documents

- None

Applicable Training

- COVID-19 Tool box talk

Training Links

- [CDC Information on COVID-19](#)
- [List N: Disinfectants for use against SARS-CoV-2, the cause of COVID-19](#)
- [OSHA COVID-19 General Information](#)
- [OSHA Guidance on Preparing Workplaces for COVID-19](#)

Potential Related Safety, Health and/or Environmental Aspects

- Bloodborne Pathogens
- Emergency Services
- First Aid
- Sanitation



Noise Exposure

Objective

The purpose of this program is to ensure that all employees are safeguarded from the occupational health and safety risks associated with noise.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1910.95 Subpart G Occupational Health and Environmental Control - Occupational noise exposure](#)
- [OSHA 29 CFR 1926.101 Subpart E Personal Protective and Life Saving Equipment - Hearing protection](#)
- ANSI S3.19
- [OSHA 29 CFR 1926.52 Subpart D Occupational Health and Environmental Controls - Occupational noise exposure](#)
- [California Code of Regulations, Title 8, Subchapter 7, Article 105 §5095-5.100](#)

Skanska/Client Requirements

- None

Procedure

1. General

1. Identify and monitor workplace noise levels using a calibrated sound level meter during daily work activities and whenever there is a change in production processes, equipment or controls.
2. Determine if employees are exposed to noise exceeding OSHA regulations (table below).
3. Employees exposed to sound levels greater than 85dBA/8-Hour Time Weighted Average (TWA) shall use hearing protection complying with ANSI S3.19.
4. Control noise at the source utilizing engineering controls before any other measures are implemented.
5. Post warning signs in conspicuous locations near the high noise level areas to notify employees that hearing protection is required.
6. When the following tasks are performed, hearing protection is mandatory. Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level:
 - Pile driving
 - Jack hammering
 - Chipping concrete or steel with power tools
 - Operating gasoline chain or cut-off saws
 - Arc gouging
 - Hoe ram operating

7. OSHA Permitted Noise Exposure

(A-scale readings on sound level meter at slow response)

Duration per Day (Hours)	Sound Level dBA Slow Response
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
.5	110
.25 or less	115

- None

2. Hearing Protection

1. Provide a variety of appropriate hearing protection devices for employees working in high noise areas.
2. Employees shall wear company-provided hearing protection. Employees shall not tamper with or modify any hearing protection equipment.
3. Discard and replace any damaged or defective equipment.
4. Failure to follow the hearing conservation program and rules set forth by the company may result in disciplinary action.
5. Any project specific requirements for this section are listed here.
 - None

EHS Forms and Documents

- None

Applicable Training

- None

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Community Impacts Transportation, Traffic Circulation & Economic
- Demolition
- Motor Vehicles and Mechanized Equipment
- Noise and/or Vibration
- Pile Driving
- Tools - Hand and Power
- Welding and Cutting



Respiratory Protection

Objective

The purpose of this program is to establish, implement and maintain an appropriate respiratory protection program to protect employees from respiratory hazards on our jobsites.

Legal and Other Requirements

Federal, State, Local Regulations

- [California Code of Regulations, Title 8, Subchapter 7, Group 16, Article 107 §5144](#)
- [OSHA 29 CFR 1910.134 Subpart I Personal Protective Equipment - Respiratory Protection](#)
- [OSHA 29 CFR 1926.103 Subpart E Personal Protective and Life Saving Equipment - Respiratory protection](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 4 §1532.3](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 28 §1696](#)

Skanska/Client Requirements

- None

Procedure

1. Medical Evaluation

1. Prior to respirator use, each employee shall complete a Medical Evaluation Questionnaire (MEQ) in accordance with CFR 1910.134 to be sent to a licensed healthcare provider for approval.
2. The licensed healthcare provider will evaluate the MEQ and certify clearance for respirator use. Forward this clearance to the employer for processing and recordkeeping.
3. Provide additional medical evaluations when:
 - An employee has a change in medical status.
 - An employee reports medical signs or symptoms related to ability to use a respirator.
 - The licensed healthcare provider states that employee needs to be re-evaluated.

2. Fit Test

1. Full-face respirators require quantitative fit tests to achieve OSHA protection factors.
2. A qualitative fit test may be used for half face air purifying respirators.
3. Fit tests will be done:
 - Before using the respirator in the field
 - At least annually
 - When a different type or brand of respirator is worn
 - When there is a significant physical difference in the employee such as body weight changes, facial scarring or dentures
4. Do not conduct fit testing if there is any hair growth between the skin and the face piece seal surface.
5. If an employee exhibits difficulty in breathing during the tests, refer them to a licensed healthcare provider.
6. If the employee does not pass a fit test, provide them with another make, model or size of the required respirator and perform a fit test.
7. Maintain a summary of all fit test results for three years. The summary shall, at a minimum, include:
 - The name of the individual tested
 - The date of the test
 - The name of the individual who administered the test
 - The fit factors obtained from quantitative tests, if performed
 - The manufacturer, model and size of respirator

3. Selection of Respirators

1. Filtering face pieces/dust masks are only permitted for voluntary use when respiratory protection is not required per the applicable OSHA standard or this EHS Manual. Voluntary use must be in accordance with OSHA 1910.134 Appendix D.
2. The respirator furnished shall provide adequate respiratory protection against the particular hazard for which it is

designed.

3. Choose respirators according to an assigned protection factor (APF).
4. Respirators are required at fifty percent (50%) of the permissible exposure limit, except for silica where respirators are only required above the permissible exposure limit.
5. To determine which respirator is adequate to protect against the contaminant, the following calculation shall be used:

$$\text{Applicable PEL} \times \text{APF} = \text{Maximum Use Concentration}/2^{**}$$
 - * PEL = Permissible Exposure Limit
 - ** Skanska's safety factor of two
6. Select respirators based on the specific hazard and in accordance with the manufacturer's instructions or other related requirements (OSHA, ANSI, NIOSH, etc.).

4. Use of Respirators

1. Specify the respirator in the Construction Work Plan.
2. Assign each employee their own respirator.
3. The wearer shall perform a fit check prior to the use of a negative pressure air-purifying respirators.
4. Standby personnel with suitable rescue equipment shall be present when a self-contained breathing apparatus (SCBA) is used in immediately dangerous to life or health (IDLH) atmospheres.
5. Employees shall be permitted to leave the work area to maintain, clean, change filters, replace parts or to inspect their respirator if it is impeding their ability to work or if the respirator stops functioning.
6. Employees shall notify supervisor when leaving the work area.
7. The competent person shall monitor work area conditions to assure respirator effectiveness.
8. Provide employees requiring corrective vision for full-face respirators with manufacturer approved optical inserts.

5. Filter/Cartridge Selection

1. Each cartridge is color coded as indicated in the table below.

ATMOSPHERIC CONTAMINANT(S)	ASSIGNED COLOR(S)
Acid gases	WHITE
Hydrocyanic acid gas	WHITE with a ½ inch GREEN stripe completely around the canister near the bottom
Chlorine gas	WHITE with a ½ inch YELLOW stripe completely around the canister near the bottom
Organic vapors	BLACK
Ammonia gas	GREEN
Acid gases and ammonia gas	GREEN with ½ inch WHITE stripe completely around the canister near the bottom
Carbon monoxide	BLUE
Acid gases and organic vapors	YELLOW
Hydrocyanic acid gas and chloropicrin vapor	YELLOW with ½ inch BLUE strip completely around the canister near the bottom
Acid gases, organic vapors, and ammonia gases	BROWN
Particulates (dusts, fumes, mists, fogs, or smokes) Radioactive materials, (except tritium and noble gases)	PURPLE (Magenta) – High Efficiency Particulate Filter (HEPA)*
Particulates (dusts, fumes, mists, fogs, or smokes) in combination with any of the gases or vapors	Canister color for contaminant as designated above, with ½ inch GRAY stripe completely around the canister near the top
All of the above atmospheric contaminants	RED with ½ inch GRAY stripe completely around the canister near the top

* Only P-100 Series HEPA filters are permitted

6. Air Quality/Requirements for In-Line Respiratory Systems

1. Cylinders of purchased breathing air shall meet at least the requirements of the specification for Type 1 – Grade D breathing air as described in Compressed Gas Association Commodity Specifications G-7.1-1989.
2. Breathing air may be supplied to respirators from cylinders or air compressors.
3. Supplied air compressors shall be equipped with the necessary safety and standby devices.
4. Position compressors to prevent contaminated air from entering the system and install inline air purifying absorbent beds and filters to assure breathing air quality.
5. An authorized person shall sign a tag indicating the last absorbent bed and filter change.
6. Each employee shall have an emergency escape bottle of sufficient capacity to evacuate the contaminated atmosphere in the event of compressor failure.
7. Equipment must have alarms to indicate compressor failure and overheating.
8. If an oil lubricated compressor is used, it shall have a high-temperature and carbon monoxide alarm.
9. Maintain carbon monoxide levels below ten (10) ppm.
10. Respirator hose length shall not exceed three hundred (300) linear feet.

7. Cleaning and Disinfecting

1. Clean and disinfect respirators daily.
2. Respirator wipes are intended for the cleaning/sanitizing prior to each use throughout the shift and shall not be used in lieu of the daily cleaning requirements.

8. Storage

1. Store respirators to protect against dust, sunlight, heat, extreme cold, excessive moisture or damaging chemicals.
2. Store respirators in a plastic bag or other container in a sanitary location.
3. Do not store respirators in lockers or toolboxes unless they are in carrying cases or cartons.
4. Place emergency use respirators at stations and work areas as required.
5. Emergency use respirators shall be immediately accessible at all times.
6. Store emergency use respirators in clearly marked compartments built for the purpose and in accordance with the manufacturer's recommendations.
7. Place instructions for the use and storage of emergency use respirators inside the carrying case lid.

9. Inspections

1. Employees must document the daily inspection of their respirator.
2. Inspect emergency use respirators after each use, monthly and per the manufacturer's recommendations.
3. Keep a record of inspection dates and findings for emergency use respirators.
4. Inspect rubber or elastomeric parts for pliability and signs of deterioration.
5. Only use NIOSH approved parts for respirator repairs.
 - Do not replace components, adjust or repair beyond the manufacturer's recommendations.
6. Return reducing/admission valves or regulators to the manufacturer for adjustment or repair.
7. Respirators that have failed inspection shall be taken out of service.
8. Inspect self-contained breathing apparatuses (SCBAs) monthly.
 - Charge cylinders according to the manufacturer's instructions.
 - Ensure regulator and warning devices function properly.
 - Check the tightness of connections and the condition of the face piece, headband, valves, connecting tube and canisters.
9. Inspect SCBA tanks annually.

EHS Forms and Documents

- Respirator Inspection - Respirator Inspection

Applicable Training

- Respiratory protection training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Concrete and Masonry
- Demolition
- Excavation and Trenching
- Hazard Communication
- Hazardous Materials and Waste Management
- Heavy Metals (Lead, Arsenic, Cadmium, Hexavalent Chromium)
- Indoor Air Quality
- Material Handling and Storage
- Materials and Waste Management
- Outdoor Air Quality
- Polychlorinated Biphenyls - PCBs
- Silica
- Tools - Hand and Power
- Welding and Cutting



Sanitation

Objective

The purpose of this program is to ensure all workers are provided with a sanitary work environment inclusive of drinking water, adequate facilities and an area free of vermin.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.51 Subpart D Occupational Health and Environmental Controls - Sanitation](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 2 §3300-3416](#)
- [California Code of Regulations, Title 8, Subchapter 7, Group 16, Article 107 §5155](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 3 §1524-1527](#)
- [California Code of Regulations, Title 8, Subchapter 4, Article 4 §1530-1530.1](#)

Skanska/Client Requirements

- None

Procedure

1. Drinking Water

1. Provide clean drinking water to all employees.
2. Containers used to dispense drinking water shall be constructed of materials that maintain water quality, sanitized daily, clearly marked and equipped with a tap and tight fitting lid.
3. Do not dip or scoop water from containers.
4. Use of a drinking cup by more than one person is not acceptable.
5. Provide drinking cups in a sanitary container and trash cans at water stations.
6. Clearly mark water sources that are not suitable for drinking.

2. Toilets

1. Make toilets available at the worksite. This does not apply to mobile crews that have transportation available to nearby toilet facilities.
2. Toilet facilities shall be adequately ventilated, appropriately screened, have self-closing doors that can be closed and latched from inside and shall be constructed to insure privacy.
3. Provide females with keys and combinations for designated locked toilets.
4. Service and clean toilets as often as necessary to maintain sanitary conditions.
5. Remove or repair toilets in poor condition.
6. Provide the following minimum amount of toilets at each jobsite:

A toilet is required for each 20 employees or fraction thereof of each sex; urinals may be substituted for half of the units. Sites with fewer than five employees are not required to provide separate toilets for each sex; however, toilets must be lockable from the inside.

3. Washing Facilities

1. Provide washing facilities with cleaning agents and towels near the worksite.
2. Provide one handwashing facility for each twenty (20) employees or fraction thereof. Washing stations must be clean and have an adequate supply of soap, water, and single use towels (or warm air blower). Washing stations must have a sign indicating water is for washing. Wash stations are to be located outside and not attached to the toilet facility. If there are less than five employees and only one toilet facility is required, the wash station may be located inside the toilet facility.
3. Refill hand washing facilities with an adequate supply of potable water, soap and single use towels.

4. Change Rooms

1. Provide change rooms to employees handling hazardous materials.

5. Eating and Drinking

1. Do not allow eating or drinking in hazardous materials areas.

6. Vermin Control

1. Construct, maintain, clean and organize enclosed workplaces, buildings, storage trailers, etc. to prevent the entrance and harborage of rats, mice, insects and other vermin. Utilize extermination measures when their presence is detected.

7. Insect Control

1. Reduce areas of standing water to prevent mosquitoes breeding. Where standing water cannot be removed treat with larvicides per the manufacturer's instructions. If these controls are ineffective, an industrial-style pesticide will be used per EPA guidelines. Provide insect repellant containing DEET® (N,N-Diethyl-meta-toluamide) to employees.
2. Minimize mosquito breeding grounds to prevent nuisance and reduce the risk of communicable diseases.
3. Store wheelbarrows, buckets and other containers upside down when not in use so they do not collect standing water.

EHS Forms and Documents

- None

Applicable Training

Training Links

- None

Potential Related Safety, Health and/or Environmental Aspects

- Sanitation



Silica

Objective

The purpose of this program is to ensure that all employees are safeguarded from the occupational health and safety risks associated with exposures to silica.

Legal and Other Requirements

Federal, State, Local Regulations

- [OSHA 29 CFR 1926.21 Subpart C General Safety and Health Provisions - Safety training and education](#)
- [OSHA 29 CFR 1926.103 Subpart E Personal Protective and Life Saving Equipment - Respiratory protection](#)
- [OSHA 29 CFR 1926.55 Subpart D Occupational Health and Environmental Controls - Gases, vapors, fumes, dusts, and mists](#)
- [OSHA 29 CFR 1926.20 Subpart C General Safety and Health Provisions - General safety and health provisions - Compliance](#)
- [OSHA 29 CFR 1926.59 Subpart D Occupational Health and Environmental Controls - Hazard Communication](#)
- [Cal/OSHA Title 8, Subchapter 4, Article 4: Dusts, Fumes, Mists, Vapors, and Gases](#)
- [OSHA 29 CFR 1926.57 Subpart D Occupational Health and Environmental Controls - Ventilation- Appendix A](#)
- [OSHA 1926.1153 - Respirable Crystalline Silica](#)
- [OSHA 29 CFR 1910.134 Subpart I Personal Protective Equipment - Respiratory Protection](#)
- [OSHA 29 CFR 1910.1020 Subpart Z Toxic and Hazardous Substances - Access to employee exposure and medical records](#)
- [OSHA Silica General - "Crystalline Silica Exposure" Health Hazard Information for General Industry Employees](#)

Skanska/Client Requirements

- None

Procedure

1. Activities that may disturb crystalline silica-containing materials include, but are not limited to:
 - Jack hammering and chipping
 - Grinding concrete
 - Tunneling
 - Sandblasting
 - Dry sweeping or blowing concrete debris, sand or rock dust
 - Demolition of concrete/masonry structures
 - Drilling rock or concrete
 - Crushing, loading, dumping rock or concrete
 - Saw cutting concrete or rock
2. Controls
 1. Use either Table 1 from OSHA 1926.1153 or occupational monitoring to establish PPE and engineering controls. If tasks are not included in Table 1, occupational monitoring must be done.
 2. Engineering controls may include, but are not limited to:
 - Dust collection systems
 - Wetting down surfaces with a fine mist sprayer
 - Equipment that provides water to the blade during saw cutting
 - Water through the drill stem during rock drilling
 - Abrasives with a low silica or no silica content
 - Local exhaust ventilation
 3. Where engineering controls cannot be utilized, or are not effective to reduce silica exposure, use administrative controls to reduce the time of exposure for employees. These may include, but are not limited to:
 - Job rotation
 - Activity rescheduling to off hours
 - Shift change
 - Reassignment to a work area away from silica generating activities

4. Give appropriate respirators and protective clothing to employees that are potentially exposed above the permissible exposure limit.
5. Provide trash bins at the exit to each area to allow employees to discard used protective clothing is provided. Post signs and barricades around areas where create potential silica exposure exist.



3. Respiratory Protection

1. Create a Worksite Specific Respiratory Plan for all activities that may potentially disturb crystalline silica.
2. Use respiratory protection as the last line of defense in the protection against exposure to silica.
3. Select respirators based on the criteria identified in OSHA Table 1 or occupational monitoring.

4. Medical Examinations

1. Occupational medical surveillance shall be made available for each employee required to use a respirator for thirty (30) or more days per year.
 2. Initial examination:
 1. Initial (baseline) medical examination shall be made available within thirty (30) days after initial assignment, unless the employee has received a medical examination that meets the requirements of this section within the last three (3) years. The examination shall consist of:
 - A medical and work history, with emphasis on: past, present, and anticipated exposure to respirable crystalline silica, dust and other agents affecting the respiratory system
 - A physical examination with special emphasis on the respiratory system
 - A chest x-ray
 - A pulmonary function test
 - Testing for latent tuberculosis infection
 - Any other tests deemed appropriate by the physician or other licensed health care professional (PLHCP)
 3. Periodic examination:
 1. Provide medical examinations at least every three (3) years or more frequently if recommended by the PLHCP.
 4. Obtain a written medical opinion from the PLHCP within thirty (30) days of the medical examination.
- ### 5. Personal Hygiene
1. Do not permit food, drink, or tobacco products to be present or consumed in the work area.
 2. Provide a wash station for employees to use following work in designated silica work areas.

EHS Forms and Documents

- [Respirator Inspection - Respirator Inspection](#)

Applicable Training

Training Links

- [Silica Safety Awareness \[Competent Person\] - Silica Safety Awareness \[Competent Person\]](#)

Appendix



Attachments

The following attachments are included in this manual:

- None



Additional Project Requirements

SHEMS	<u>Training</u>
<u>Additional Training Requirements</u> <ul style="list-style-type: none">• None	
Policies	<u>Cell Phone Smart Device User Program</u>
<u>Project Specific Requirements</u> <ul style="list-style-type: none">• None	
Policies	<u>EHS Policies Specific to Subcontractors</u>
<u>Project Management Shall</u> <ul style="list-style-type: none">• None	
<u>Subcontractor Shall</u> <ul style="list-style-type: none">• None	
<u>Subcontractor Pre-Mobilization Meeting</u> <ul style="list-style-type: none">• None	
Policies	<u>Substance Abuse Policy</u>
<u>Project Management Responsibilities</u> <ul style="list-style-type: none">• None	
<u>Subcontractor Responsibilities</u> <ul style="list-style-type: none">• None	
Policies	<u>Vehicle Policy</u>
<u>Operational Controls/Documents</u> <ul style="list-style-type: none">• None	
<u>Performance Indicators/Records</u> <ul style="list-style-type: none">• None	
<u>Procedure and Rules for Safe Operation of Vehicles</u> <ul style="list-style-type: none">• None	
<u>Job Vehicles</u> <ul style="list-style-type: none">• None	
Safety	<u>Concrete and Masonry</u>

General Requirements

- None

Equipment and Tools

- None

Cast/InPlace Concrete

- None

Vertical Slip Forms

- None

Reinforcing Steel

- None

Removal of Formwork

- None

Precast Concrete Erection

- None

Lift Slab

- None

Masonry Construction

- None

Safety

Confined and Enclosed Spaces

General Requirements

- None

Safety

Cranes and Cranes Rigging

General Policy State-Specific Requirements

- None

General Policy

- None

Site Prep

- None

Operations

- None

Lift Planning

- None

Maintenance and Inspection

- None

Electrical

- None

Weather

- None

Unconventional Cranes

- None

Program Management

- None

Safety

Demolition

Demolition Plan

- None

Engineering Survey

- None

Hazardous Materials Survey and Abatement Plan

- None

Utility Protection Plan

- None

Shoring or Bracing Plan

- None

Dust Control Plan

- None

Disposal Plan

- None

Pest and Rodent Control Plan

- None

Noise and Vibration Assessment

- None

Safety**Dropped Object Protection****General Requirements**

- None

Tool and Material Storage

- None

Safety**Electrical****General Requirements**

- None

Ground Fault Circuit Interrupters

- None

Double Insulated Tools

- None

Electrical Systems

- None

Safety**Excavation and Trenching**

<u>General Requirements</u> <ul style="list-style-type: none"> • None 	
<u>Soil</u> <ul style="list-style-type: none"> • None 	
<u>Protective Systems</u> <ul style="list-style-type: none"> • None 	
Safety	<u>Fall Prevention and Protection</u>
<u>Guardrail Systems</u> <ul style="list-style-type: none"> • None 	
<u>Safety Nets</u> <ul style="list-style-type: none"> • None 	
<u>Warning Line System</u> <ul style="list-style-type: none"> • None 	
<u>Covers</u> <ul style="list-style-type: none"> • None 	
<u>Personal Fall Arrest Systems</u> <ul style="list-style-type: none"> • None 	
<u>Full Body Harness</u> <ul style="list-style-type: none"> • None 	
<u>Lifelines</u> <ul style="list-style-type: none"> • None 	
<u>Positioning Devices</u> <ul style="list-style-type: none"> • None 	
<u>Fall Protection Plan</u> <ul style="list-style-type: none"> • None 	
Safety	<u>Fire Prevention and Protection</u>

Fire Extinguishers

- None

Flammable Liquid Storage

- None

Indoor Storage

- None

Outdoor Storage

- None

Outdoor Portable Tank Storage

- None

Temporary Heating Devices

- None

Combustion Heaters

- None

Electric Heaters

- None

Liquefied Petroleum Gas and Propane Requirements

- None

Gas Storage

- None

Gas Use

- None

Safety

Housekeeping

General Housekeeping

- None

Trash Chute

- None

Safety

Illumination - Project Lighting

<u>Fixtures</u> <ul style="list-style-type: none"> • None 	
<u>Power Source</u> <ul style="list-style-type: none"> • None 	
<u>Task Lighting</u> <ul style="list-style-type: none"> • None 	
<u>Lighting Levels</u> <ul style="list-style-type: none"> • None 	
<u>General Requirements</u> <ul style="list-style-type: none"> • None 	
<u>Illumination Requirements</u> <ul style="list-style-type: none"> • None 	
Safety	<u>Inclement Weather and Lightning</u>
<u>General</u> <ul style="list-style-type: none"> • None 	
<u>Potential Airborne Materials</u> <ul style="list-style-type: none"> • None 	
<u>Thunderstorms and Lightning</u> <ul style="list-style-type: none"> • None 	
<u>Hurricanes</u> <ul style="list-style-type: none"> • None 	
<u>Tornadoes</u> <ul style="list-style-type: none"> • None 	
<u>Applicable Training</u> <ul style="list-style-type: none"> • None 	
Safety	<u>Lockout Tagout</u>

Preparation

- None

Shutdown

- None

Isolation

- None

Lockout

- None

Verification of Isolation

- None

Release from Lockout

- None

Testing

- None

Medium and High Voltage Lockout Procedures

- None

Qualified persons will visually observe

- None

High Voltage Lines and Equipment

- None

Lockout General Requirements

- None

Tagout General Requirements

- None

Training Communications

- None

Employee Retraining

- None

LOTO Training

- None

Safety

Maintenance and Protection of Traffic

Specialized Vehicles

- None

Flagger Control

- None

Documentation

- None

Traffic Signs for Functional Groups

- None

Barricades

- None

Warning Lights and Illumination

- None

Flashing Arrow/Message Signs

- None

Day Closures

- None

Night Closures

- None

Safety

Material Handling and Storage

<u>Material Storage</u> <ul style="list-style-type: none"> • None 	
<u>Banding</u> <ul style="list-style-type: none"> • None 	
<u>Manually Moving Materials</u> <ul style="list-style-type: none"> • None 	
<u>Manually Operated Mechanisms</u> <ul style="list-style-type: none"> • None 	
<u>Moving Long or Bulky Materials</u> <ul style="list-style-type: none"> • None 	
<u>Mechanically Moving Materials</u> <ul style="list-style-type: none"> • None 	
<u>Conveyors General Requirements</u> <ul style="list-style-type: none"> • None 	
<u>Guards and Emergency Stops</u> <ul style="list-style-type: none"> • None 	
<u>Disposal of Waste Material</u> <ul style="list-style-type: none"> • None 	
<u>Applicable Training</u> <ul style="list-style-type: none"> • None 	
Safety	<u>Mobile Elevated Work Platforms</u>
<u>General Requirements</u> <ul style="list-style-type: none"> • None 	
<u>Applicable Training</u> <ul style="list-style-type: none"> • None 	
Safety	<u>Motor Vehicles and Mechanized Equipment</u>
<u>General Requirements</u> <ul style="list-style-type: none"> • None 	
<u>Maintenance</u> <ul style="list-style-type: none"> • None 	
<u>Applicable Training</u> <ul style="list-style-type: none"> • None 	
Safety	<u>Pile Driving</u>

<u>General Requirements</u> <ul style="list-style-type: none"> • None 	
<u>Personal Protective Equipment</u> <ul style="list-style-type: none"> • None 	
<u>Inspection and Maintenance of Equipment</u> <ul style="list-style-type: none"> • None 	
<u>Applicable Training</u> <ul style="list-style-type: none"> • None 	
Safety	<u>Rigging</u>
<u>General Requirements</u> <ul style="list-style-type: none"> • None 	
<u>Lifting Devices</u> <ul style="list-style-type: none"> • None 	
<u>Storage</u> <ul style="list-style-type: none"> • None 	
<u>Proper use of Synthetic Round and Wire Rope Slings</u> <ul style="list-style-type: none"> • None 	
<u>Removal Criteria for Synthetic Web and Round Slings</u> <ul style="list-style-type: none"> • None 	
<u>Removal Criteria for Wire Rope Sling</u> <ul style="list-style-type: none"> • None 	
<u>Proper Use of Hardware</u> <ul style="list-style-type: none"> • None 	
<u>Hardware Removal Criteria</u> <ul style="list-style-type: none"> • None 	
Safety	<u>Scaffolds</u>

<u>General Requirements</u> <ul style="list-style-type: none"> • None 	
<u>Planking</u> <ul style="list-style-type: none"> • None 	
<u>Guardrails and Toe Boards</u> <ul style="list-style-type: none"> • None 	
<u>Tubular Welded Frame Scaffolds</u> <ul style="list-style-type: none"> • None 	
<u>Manually Propelled Ladder Stands and Scaffolds</u> <ul style="list-style-type: none"> • None 	
<u>Suspended Scaffolds</u> <ul style="list-style-type: none"> • None 	
Safety	<u>Signs, Signals and Barricades</u>
<u>General Requirements</u> <ul style="list-style-type: none"> • None 	
<u>Signs and Signals</u> <ul style="list-style-type: none"> • None 	
<u>Barricades</u> <ul style="list-style-type: none"> • None 	
Safety	<u>Stairways and Ladders</u>
<u>General Requirements</u> <ul style="list-style-type: none"> • None 	
<u>Setup and Use</u> <ul style="list-style-type: none"> • None 	
<u>Housekeeping</u> <ul style="list-style-type: none"> • None 	
<u>Inspection and Repair</u> <ul style="list-style-type: none"> • None 	
Safety	<u>Steel Erection</u>
<u>Dropped Object Prevention</u> <ul style="list-style-type: none"> • None 	
<u>Steel Assembly</u> <ul style="list-style-type: none"> • None 	

Safety	<u>Temporary Works</u>
<u>General Requirements</u>	
<ul style="list-style-type: none"> • None 	
Safety	<u>Tools - Hand and Power</u>
<u>General Requirements</u>	
<ul style="list-style-type: none"> • None 	
<u>Power Operated Hand Tools</u>	
<ul style="list-style-type: none"> • None 	
<u>Powder Actuated Tools Loading</u>	
<ul style="list-style-type: none"> • None 	
<u>Powder Actuated Tools Use</u>	
<ul style="list-style-type: none"> • None 	
<u>Powder Actuated Tools Storage</u>	
<ul style="list-style-type: none"> • None 	
<u>Pneumatic and Hydraulic Tools</u>	
<ul style="list-style-type: none"> • None 	
Safety	<u>Welding and Cutting</u>
<u>Compressed Gas Handling Storage and Use</u>	
<ul style="list-style-type: none"> • None 	
<u>Arc Welding and Cutting Safe Practices and Procedures</u>	
<ul style="list-style-type: none"> • None 	
<u>Ventilation</u>	
<ul style="list-style-type: none"> • None 	
<u>Respiratory Protection</u>	
<ul style="list-style-type: none"> • None 	
<u>Eye Protection</u>	
<ul style="list-style-type: none"> • None 	
<u>Fire Protection</u>	
<ul style="list-style-type: none"> • None 	
Environmental	<u>Archaeological, Cultural and Historic</u>
<u>Procedure</u>	
<ul style="list-style-type: none"> • None 	
Environmental	<u>Community Impacts Transportation, Traffic Circulation & Economic</u>

<u>Procedure</u>	
<ul style="list-style-type: none"> • None 	
Environmental	<u>Community Impacts Utilities</u>
<u>Procedure</u>	
<ul style="list-style-type: none"> • None 	
Environmental	<u>Hazardous Materials and Waste Management</u>
<u>Procedure</u>	
<ul style="list-style-type: none"> • None 	
Environmental	<u>Materials and Waste Management</u>
<u>Procedure</u>	
<ul style="list-style-type: none"> • None 	
Environmental	<u>Noise and/or Vibration</u>
<u>Procedure</u>	
<ul style="list-style-type: none"> • None 	
Environmental	<u>Outdoor Air Quality</u>
<u>Procedure</u>	
<ul style="list-style-type: none"> • None 	
Environmental	<u>Spills and Leaks</u>
<u>Procedure</u>	
<ul style="list-style-type: none"> • None 	
Environmental	<u>Water Impacts</u>
<u>Procedure</u>	
<ul style="list-style-type: none"> • None 	
Health	<u>Asbestos Inclusive of Naturally Occuring Asbestos</u>
<u>General Requirements</u>	
<ul style="list-style-type: none"> • None 	
<u>Identification and Disturbance</u>	
<ul style="list-style-type: none"> • None 	
Health	<u>First Aid, Emergency Services, Bloodborne Pathogens</u>

<u>First Aid and AED Supplies</u> <ul style="list-style-type: none"> • None 	
<u>Bloodborne Pathogens</u> <ul style="list-style-type: none"> • None 	
<u>Regulated Waste Disposal</u> <ul style="list-style-type: none"> • None 	
Health	<u>Hazard Communication</u>
<u>Procedure</u> <ul style="list-style-type: none"> • None 	
Health	<u>Heat and Cold Related Illness</u>
<u>General Requirements</u> <ul style="list-style-type: none"> • None 	
<u>Hot Environment</u> <ul style="list-style-type: none"> • None 	
<u>Cold Environment</u> <ul style="list-style-type: none"> • None 	
Health	<u>Noise Exposure</u>
<u>General</u> <ul style="list-style-type: none"> • None 	
<u>Hearing Protection</u> <ul style="list-style-type: none"> • None 	



Change Log

Appendix 5 - Security Plan (PR-03)



Security Plan (PR-03)

SKANSKA | FLATIRON

Contents

Security Plan..... 3

1 Construction Security..... 3

Security Plan

1 Construction Security

In accordance with the requirements of PR-02 4.A.6 SFJV will install, protect, and maintain security fencing around the construction staging yards and areas of operations where feasible. Some active construction work zones will be located in public roadways or other areas that will need to remain accessible to the public. These areas will not be conducive to perimeter security fencing but will have temporary warning signs, barricades, and/or flaggers as required by the ASR/LIR. Openings in the security fence to major yards will be supervised by a security guard, flagger, or craft watch-person when open for access during construction hours. SFJV will work with LAWA to optimize the security requirements to balance security needs with the project budget to ensure a safe and efficient project.

SFJV will work with LAWA's CALM team to determine any other security measures that are needed and will implement as needed throughout the project.

Appendix 6- Work Plan & Schedule (PR-04)



**PROJECT SCHEDULE
UPDATE 16**

**AIRFIELD & TERMINAL MODERNIZATION PROJECT
ROADWAY IMPROVEMENTS
CONTRACT No.: DA-5609**

LOS ANGELES WORLD AIRPORTS

*Skanska-Flatiron, A Joint Venture
1995 Agua Mansa Rd
Riverside, CA 92509*

November 7, 2024

INTRODUCTION

As required by the *Project Requirements (PR-01)* Section 4.D.3, Skanska-Flatiron, a Joint Venture ('SFJV'), hereby submits Schedule Update 16 with Data Date 01NOV24. The Baseline Schedule Schematic Design R0 Schedule was updated to reflect progress through October 31, 2024.

SFJV incorporated modifications to the schedule in the period. Notably, SFJV:

- Addressed comments received from LAWA upon its review of Update 15;
- Updated the "Owner Activities" to comport with the updated P6 file provided by LAWA; and
- Modified activities and logic within the construction work to comport with the now-current and developing plan to construct the work.

Detail of schedule modifications in the period are included below.

WORK COMPLETED IN THE PERIOD

Within the period, SFJV and its team:

- Submitted the Task Order 5, Design Unit 4 documents to LAWA meeting the obligated submission date;
- Progressed the pricing for the task order for the construction documents for the balance of the work;
- Submitted TO-PH1-TO03R1, MOT Analysis & Traffic Evaluation 60% design;
- Continued the taking of geotechnical borings;
- Advanced the preparation of the geotechnical reports for Main Work Packages #2 and #3; and
- Advanced the preparation of the Design Development for all packages on the Project.

LONGEST PATH

The longest path to project completion is attached herewith.

The longest path remains driven by the process to put a GMP in place between the parties to allow Main Work Package #2 to commence upon issuance of NTP in advance of installation of drilled shaft foundations, the sequence of which was optimized in the period.

Bridge A Frame 7 construction then continues to control the longest path upon completion of drilled shafts at Bent 22 with an anticipated completion in May 2027. With the traffic switch to Segment A, the existing hook ramp is removed allowing the commencement of the Stage 4 work. Work to commence Retaining Wall A-3 then controls the longest path through excavation and shoring which then allows for the west tie in to the relocated box culvert to take place. With the box culvert relocation complete, the longest path is then controlled by the construction of Retaining Wall K-2 followed by the roadway section in Segment I between Sta 17+50 and Sta 21+44. With Segment I complete, existing Westbound Century over Sepulveda is removed allowing for Stage 5 work to commence in January 2028. Within Stage 5, construction of Bridge P controls the longest path through 15SEP28 whereupon the existing EB Century over Sepulveda may be removed and the remainder of Bridge P, with its requisite traffic tie-ins, may complete. Segment NE is then constructed with a forecast Project Final Completion date of 24JAN30.

The minor longest path betterment in the period is the direct result of the re-optimization of the drilled shaft installation.

SCHEDULE MODIFICATIONS

The schedule modifications discussed are between schedule file LAWA-ATMP-BLR0UP15 with Data Date 01OCT24 and LAWA-ATMP-BLR0UP16 with Data Date 01NOV24.

The following activities and their relationships were added to the schedule to model the preparation and review of the final IFC packages for MWP #2 and #3:

ID	Description	LAWA-ATMP-BLR0UP15	LAWA-ATMP-BLR0UP16
DS-31030	CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #2 Review	*	✓
DS-31040	CD - Perform DQC on IFC Main Work Package #2	*	✓
DS-31050	CD - Conduct IFC Main Work Package #2 Review & Submit	*	✓
DS-31060	CD - LAWA/AHJ Review of IFC Main Work Package #2	*	✓
DS-31070	CD - LAWA/AHJ Readiness Review IFC Main Work Package #2	*	✓
MS-21250	CD - Issue IFC Ready Main Work Package #2	*	✓
DS-31080	CD - Incorporate LAWA/AHJ Comments from IFC Ready Design Main Work Package #3 Review	*	✓
DS-31090	CD - Perform DQC on IFC Main Work Package #3	*	✓
DS-31100	CD - Conduct IFC Main Work Package #3 Review & Submit	*	✓
DS-31110	CD - LAWA/AHJ Review of IFC Main Work Package #3	*	✓
DS-31120	CD - LAWA/AHJ Readiness Review IFC Main Work Package #3	*	✓

The following activities and their relationships were added to the schedule to model the noted utility relocations identified in the period:

ID	Description	LAWA-ATMP-BLR00P15	LAWA-ATMP-BLR00P16
UTIL-13040	Util Relo - AT&T Ant on 96th - Disconnect & Remove Antenna (By Others)	x	✓
UTIL-13070	Util Relo - AT&T Ant on 96th - Install Conduit & Pull Boxes	x	✓
UTIL-13080	Util Relo - AT&T Ant on 96th - Reinstall Light Pole / Antenna (By Others)	x	✓
UTIL-13090	Util Relo - CC Ant East of Vicks - Disconnect & Remove Antenna (By Others)	x	✓
UTIL-13100	Util Relo - CC Ant East of Vicks - Install Conduit & Pull Boxes	x	✓
UTIL-13110	Util Relo - CC Ant East of Vicks - Reinstall Light Pole / Antenna (By Others)	x	✓
UTIL-13120	Util Relo - CC Ant @ Sep / Seg C - Disconnect & Remove Antenna (By Others)	x	✓
UTIL-13130	Util Relo - CC Ant @ Sep / Seg C - Install Conduit & Pull Boxes	x	✓
UTIL-13140	Util Relo - CC Ant @ Sep / Seg C - Reinstall Light Pole / Antenna (By Others)	x	✓
UTIL-12990	Util Relo - DWP Remove OH 4.8kV Power on Vicksburg - DS-111 to 96th/Sepulveda	x	✓
UTIL-13000	Util Relo - DWP Remove OH 4.8kV Service Feeds on 96th St	x	✓
UTIL-13010	Util Relo - DWP Remove OH Power to Sunrise & THL	x	✓
UTIL-13020	Util Relo - Provide Stop Service Request to DWP for 96th St Properties	x	✓
UTIL-13030	Util Relo - Provide Stop/Transfer Request to DWP for Sunrise OH Feed	x	✓

The following activity and its relationships were added to the schedule to track the notice required for excavation at the noted property:

ID	Description	LAWA-ATMP-BLR00P15	LAWA-ATMP-BLR00P16
TPP-10520	TPP - Provide Notice of Excavation to Homewood Suites	x	✓

The following activity and its relationships were added to the schedule based upon traffic pattern changes required by the now-current plan to complete the work:

ID	Description	LAWA-ATMP-BLR00P15	LAWA-ATMP-BLR00P16
CON-47841	S2 - Establish MOT Measures & Modify Intersection to Close 96th & Vicksburg	x	✓

The following activities and their relationships were added to the schedule based upon the now-current plan to complete the work within Segment E:

ID	Description	LAWA-ATMP-BLR00P15	LAWA-ATMP-BLR00P16
CON-49771	S2 - E 8+76 to 13+04 - Remove Pavements & Hardscapes	x	✓
CON-49781	S2 - E 8+76 to 13+04 - Install Storm Drainage & Appurtenances	x	✓
CON-49791	S2 - E 8+76 to 13+04 - Fine Grade Subgrade	x	✓
CON-49801	S2 - E 8+76 to 13+04 - Install Curb & Gutter	x	✓
CON-49811	S2 - E 8+76 to 13+04 - Install Street Lighting & OH5 Foundations	x	✓
CON-49821	S2 - E 8+76 to 13+04 - Place & Fine Grade Agg Base	x	✓
CON-49831	S2 - E 8+76 to 13+04 - Place HMA Base Course	x	✓
CON-49841	S2 - E 8+76 to 13+04 - Install Street Lighting Fixtures & Appurtenances	x	✓
CON-49851	S2 - E 8+76 to 13+04 - Install OHSS & Signage	x	✓

The following activities and their relationships were added to or deleted from the schedule based upon the now-current plan to complete the work within Segment K:

ID	Description	LAWA-ATMP-BLGROUP15	LAWA-ATMP-BLGROUP16
CON-32600	S5 - Establish MOT Measures on Center Way for Seg K Tie In	x	✓
CON-32660	S5 - Open Segment K In Stage 5 Configuration	x	✓
CON-37060	S5 - K 59+61 to 61+06 - Install Curb & Gutter	x	✓
CON-37070	S5 - K 59+61 to 61+06 - Install Street Lighting Conduit & Foundations	x	✓
CON-37920	S5 - K 54+55 to 56+16 - Grade for Flatwork & Barriers	✓	x
CON-37960	S5 - K 54+55 to 56+16 - Construct Final Roadway Finishes	✓	x
CON-38260	S5 - K - Install Light Fixtures Sta 52+06 to Sta 56+16	x	✓
CON-38370	S5 - K - Install Light Fixtures Sta 59+61 to Sta 66+34	x	✓
CON-38380	S5 - K - Install OH5 & ITS Gantries	x	✓
CON-38390	S5 - K - Install OH Wayfinding Signs	x	✓
CON-38400	S5 - K - Place Sidewalks & ADA Ramps	x	✓
CON-38410	S5 - K - Place HMA Wearing Course Pavement	x	✓
CON-49481	S4 - Wall K-1 - Place Soil Correction for Footing Section 2	x	✓
CON-49491	S4 - Wall K-1 - Excavate Keyway/ Fine Grd for Footing Section 2	x	✓
CON-49501	S4 - Wall K-1 - Final Water Cure Panels	x	✓
CON-49511	S4 - Wall K-2 - Place Soil Correction for Footing Section 2	x	✓
CON-49521	S4 - Wall K-2 - Excavate Keyway/Fine Grd for Footing Section 2	x	✓
CON-49531	S4 - Wall K-2 - Final Water Cure Panels	x	✓
CON-49541	S5 - Wall K-4 - Place Soil Correction for Footing Section 2	x	✓
CON-49551	S5 - Wall K-4 - Excavate Keyway/Fine Grd for Footing Section 2	x	✓
CON-49561	S5 - Wall K-4 - Final Water Cure Panels	x	✓
CON-49861	S5 - K 54+55 to 56+16 - Place Traffic Barrier	x	✓
CON-49871	S5 - K 61+06 to 65+48 - Install Street Lighting Conduit & Foundations	x	✓

The following activities and their relationships were added to or deleted from the schedule based upon the now-current plan to complete the work within Segment L:

ID	Description	LAWA-ATMP-BLGROUP15	LAWA-ATMP-BLGROUP16
CON-15000	S2 - L 67+83 to 69+08 - Install Drainage Pipe & Appurtenances	✓	x
CON-15010	S2 - L 67+83 to 69+08 - Install Drainage Boxes & Appurtenances	✓	x
CON-49691	S2 - Establish MOT Measures on World Way for Seg L Construction	x	✓
CON-49701	S2 - L 66+10 to 67+00 - Remove Pavements & Hardscapes	x	✓
CON-49711	S2 - L 66+10 to 67+00 - Install Drainage Pipe & Appurtenances	x	✓
CON-49721	S2 - L 66+10 to 67+00 - Install Roadway Finishes & Remove K-Rail on Seg S	x	✓
CON-49731	S2 - L 66+10 to 67+00 - Install Curb & Gutter	x	✓
CON-49741	S2 - L 66+10 to 67+00 - Prep Subgrade & Place Agg Base	x	✓
CON-49751	S2 - L 66+10 to 67+00 - Place HMA Base Course	x	✓
CON-49761	S2 - L 66+10 to 67+00 - Install Sidewalk & ADA Ramps	x	✓

The following activities and their relationships were added to or deleted from the schedule based upon the now-current plan to complete the work within Segment P:

ID	Description	LAWA-ATMP-GROUP15	LAWA-ATMP-GROUP16
CON-35900	S5 - Wall P-1 - Excavate for Footing Section 2	✓	✗
CON-35910	S5 - Wall P-1 - Excavate for Footing Section 3	✓	✗
CON-35920	S5 - Wall P-1 - FRP Footing Section 1	✓	✗
CON-35930	S5 - Wall P-1 - FRP Footing Section 2	✓	✗
CON-35940	S5 - Wall P-1 - FRP Footing Section 3	✓	✗
CON-35950	S5 - Wall P-1 - FRP Panels Section 1	✓	✗
CON-35960	S5 - Wall P-1 - FRP Panels Section 2	✓	✗
CON-35970	S5 - Wall P-1 - FRP Panels Section 3	✓	✗
CON-35980	S5 - Wall P-1 - Final Cure Section 1	✓	✗
CON-35990	S5 - Wall P-1 - Final Cure Section 2	✓	✗
CON-36000	S5 - Wall P-1 - Final Cure Section 3	✓	✗
CON-36010	S5 - Wall P-1 - Strip Panels Section 1	✓	✗
CON-36020	S5 - Wall P-1 - Strip Panels Section 2	✓	✗
CON-36030	S5 - Wall P-1 - Strip Panels Section 3	✓	✗
CON-36080	S5 - Wall P-3 - Excavate for Footing Section 2	✓	✗
CON-36090	S5 - Wall P-3 - FRP Footing Section 1	✓	✗
CON-36091	S6 - Wall P-3 - Remove Abut P-A4 SOE	✗	✓
CON-36100	S5 - Wall P-3 - FRP Footing Section 2	✓	✗
CON-36120	S5 - Wall P-3 - FRP Panels Section 2	✓	✗
CON-36140	S5 - Wall P-3 - Final Cure Section 2	✓	✗
CON-36160	S5 - Wall P-3 - Strip Panels Section 2	✓	✗
CON-36410	S5 - Wall P-1 - Surface Finish Front Face / Install Arch Finishes	✓	✗
CON-36601	S5 - P 18+85 to 22+20 - Install Retaining Barrier	✗	✓
CON-36610	S5 - P 20+00 to 21+94 - Place & Fine Grade Agg Base	✓	✗
CON-36651	S5 - P 25+08 to 27+03 - P1 - Install Retaining Barrier	✗	✓
CON-36701	S5 - P 25+08 to 27+03 - P1 - Install Street Light Conduit & Fndtns	✗	✓
CON-37040	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Remove Pvmnts & Hardscapes	✗	✓
CON-38090	S5 - P 10+00 to 20+00 - Place Flatwork & Barriers	✓	✗
CON-38091	S5 - P 10+00 to 18+85 - P1 - Install Street Light Conduit & Fndtns	✗	✓
CON-38910	S5 - Establish MOT Measures for Seg P Construction	✗	✓
CON-39270	S6 - Br M/P - Install OH5 & ITS Gantry	✗	✓
CON-39320	S6 - Br M/P - Install OH Wayfinding Signs	✗	✓
CON-46670	S6 - Br P - Prep Deck & Profilograph	✗	✓
CON-46710	S6 - Br P - Perform Profile Grinding	✗	✓
CON-46750	S6 - Br P - Install Joint Assembly - Hinge P-F1/P-F2	✗	✓
CON-46760	S6 - Br P - Install Joint Assembly - Hinge P-F2/L-F2	✗	✓
CON-49571	S5 - Wall P-3 - Install Secant Pile	✗	✓
CON-49581	S5 - Wall P-3 - Cure Secant Pile Shafts	✗	✓
CON-49591	S5 - P-F1 - P-A4 - Install SOE	✗	✓
CON-49601	S6 - Wall P-3 - Drill & Bond Dowels & Wall Ties	✗	✓
CON-49611	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Install Retaining Barrier	✗	✓
CON-49621	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Prep Subgrade	✗	✓
CON-49631	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Install Storm Drainage & Appurtenances	✗	✓
CON-49641	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Install Curb & Gutter	✗	✓
CON-49651	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Place Agg base & Fine Grd	✗	✓
CON-49661	S6 - Seg P - Sta 21+94 to 31+90 - P2 - Place AC Base Course	✗	✓
CON-49671	S6 - Seg P - Install FINAL Rdwy Signage, Striping & Misc Finishes	✗	✓
CON-49681	S6 - Open Seg P/M Gore St 6 Config	✗	✓
CON-49881	S5 - Open Segment P in Stage 5 Configuration	✗	✓
CON-49891	S5 - P 27+03 to 30+32 - P1 - Install Street Light Conduit & Fndtns	✗	✓
CON-49901	S6 - Open Seg P East of Bridge in St 6 Config	✗	✓
CON-49911	S6 - P 10+00 to 18+85 - P2 - Perform Roadway Excavation	✗	✓
CON-49921	S6 - P 10+00 to 18+85 - P2 - Install Curb & Gutter	✗	✓
CON-49931	S6 - P 10+00 to 18+85 - P2 - Install Street Light Conduit & Fndtns	✗	✓
CON-49941	S6 - P 10+00 to 18+85 - P2 - Prep Subgrade & Place Agg Base	✗	✓
CON-49951	S6 - P 10+00 to 18+85 - P2 - Place HMA Base Course Pavement	✗	✓
CON-49961	S6 - P 10+00 to 18+85 - P2 - Install Storm Drainage & Appurtenances	✗	✓
CON-49971	S6 - P 10+00 to 18+85 - P2 - Remove Pavements & Hardscapes	✗	✓
CON-49981	S6 - Seg P - Place HMA Wearing Course Sta 10+00 to Sta 31+90	✗	✓
CON-49991	S6 - Seg P - Install OH5 & ITS Gantry West of Bridge	✗	✓
CON-50001	S6 - Seg P - Install Street Light Fixtures & Appurtenances Sta 10+00 to Sta 31+90	✗	✓
CON-50011	S6 - Br P - FRP Approach Slab P-A1 - Phase 2	✗	✓
CON-50021	S6 - Seg P - Sta 25+08 to 28+25 - Place Traffic Barrier	✗	✓
CON-50031	S6 - Br P - FRP Approach Slab P-A4 - Phase 2	✗	✓
CON-50041	S6 - Seg P - Install OH5 & ITS Gantry East of Bridge	✗	✓
CON-50051	S6 - Seg P - Install OH Wayfinding Signs	✗	✓

ANTICIPATED SCHEDULE MODIFICATIONS – NEXT PERIOD

SFJV anticipates the following schedule modifications, at a minimum, will be included within the next Schedule Update:

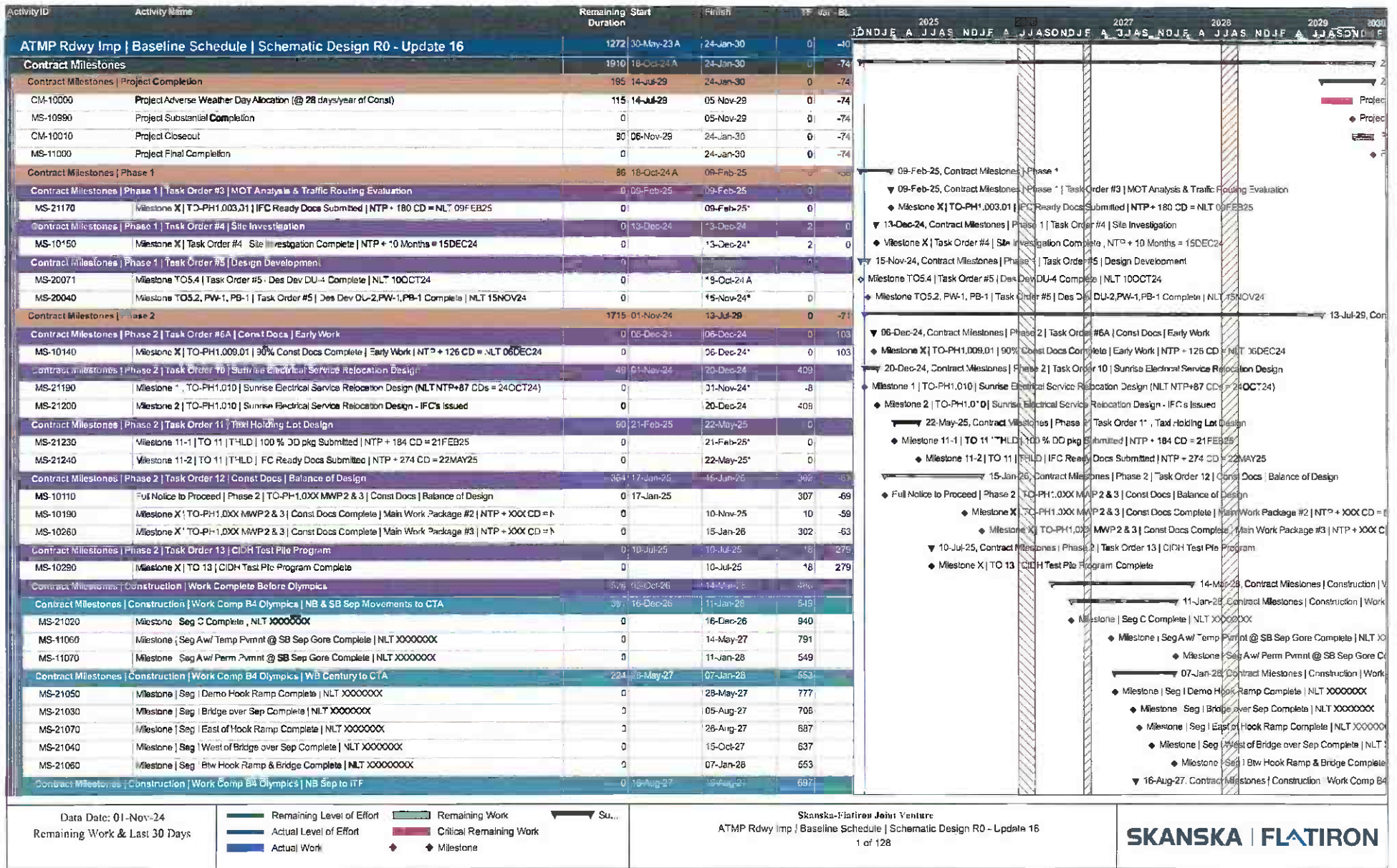
- Continued review of Bridge Structures for bridge type, sequence, and scope; and
- Continued resolution of redundant logic.

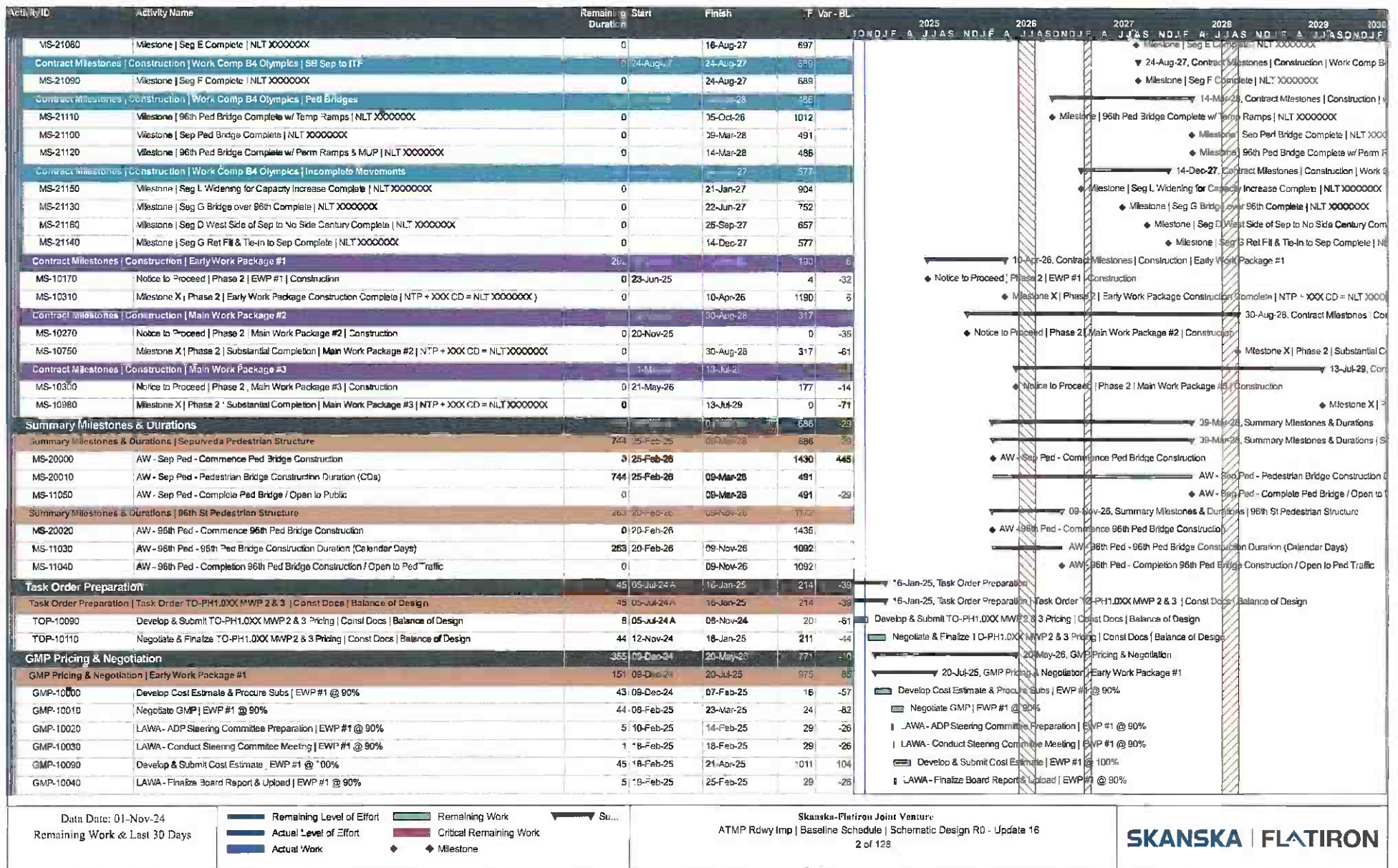
SFJV has reviewed the requirements contained within Project Requirement PR-04 with regard to the content of the Monthly Schedule Update Narrative Report. SFJV shall include the additional narrative sections as they become applicable to the Work authorized to proceed.

EXHIBITS

1. LAWA-ATMP-BLSDR0UP16.xer
2. LAWA-ATMP-BLSDR0UP16 – Remaining Work & Last 30 Days
3. LAWA-ATMP-BLSDR0UP16 – Longest Path (Float Path = 1)
4. LAWA-ATMP-BLSDR0UP16 – Schedule Quality Report

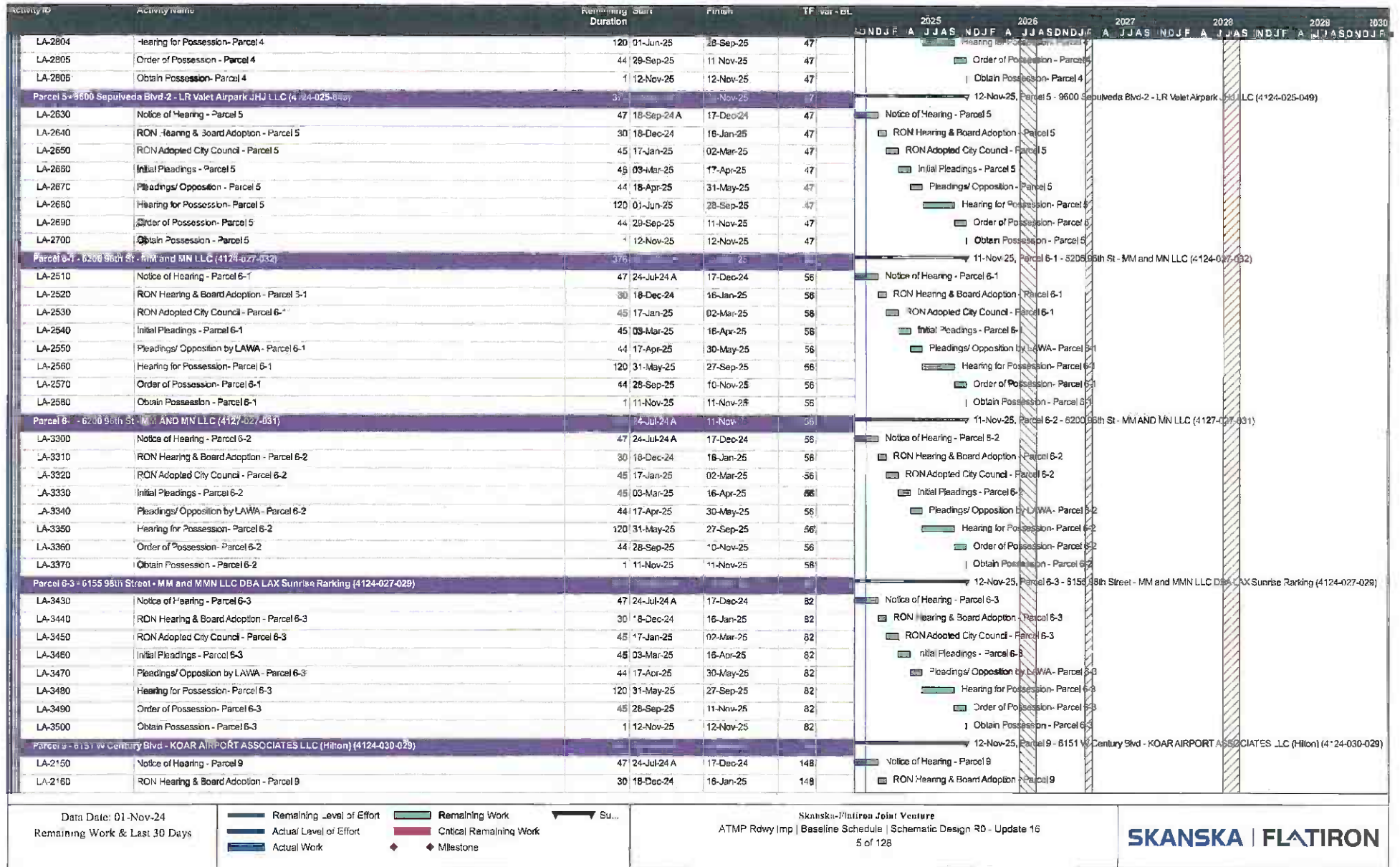
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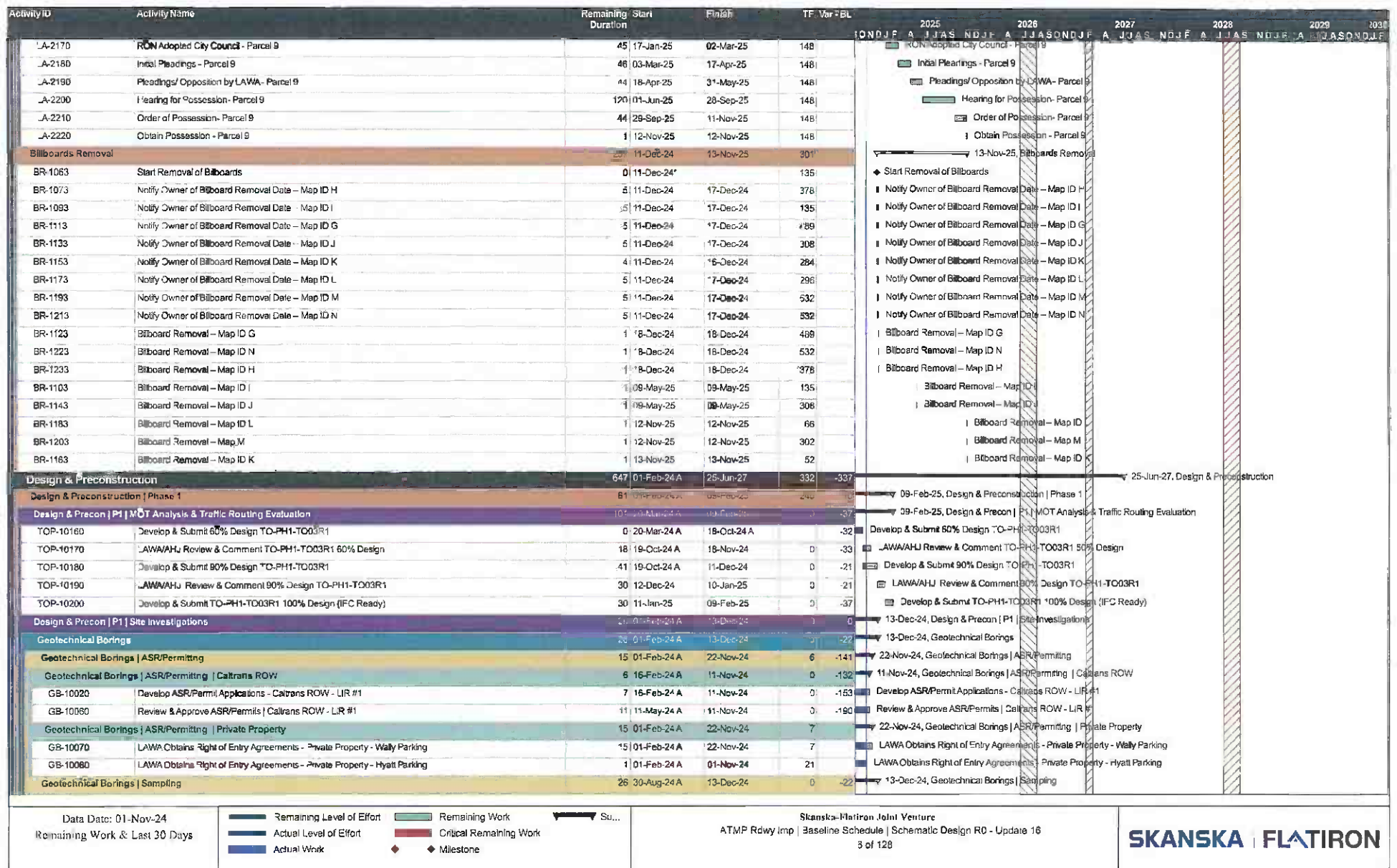




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Activity ID	Activity Name	Remaining	Start	Finish	TF var - BL	2025	2026	2027	2028	2029	2030
		Duration				2025	2026	2027	2028	2029	2030
RCA-1480	LAWA prepare RCA	3	27-Sep-24	05-Nov-24	40						
RCA-1490	LAWA Submit RCA to Caltrans for review	3	05-Nov-24		40						
RCA-1500	Caltrans 1st review RCA	1	07-Nov-24	07-Nov-24	40						
RCA-1510	LAWA revise RCA	2	05-Nov-24	11-Nov-24	40						
RCA-1520	LAWA Submit RCA to Caltrans for review	0		11-Nov-24	40						
RCA-1530	Caltrans 2nd review RCA	12	12-Nov-24	27-Nov-24	40						
RCA-1540	Caltrans D7 approval of RCA (EA Issued)	0		27-Nov-24	40						
RCA-1550	LAWA concurrence with RCA approval	2	02-Dec-24	03-Dec-24	40						
RCA-1560	Caltrans D7 prepares Cooperative Agreement	20	04-Dec-24	02-Jan-25	40						
RCA-1570	Caltrans D7 submits Cooperative Agreement to LAW A (for review 1)	0		02-Jan-25	40						
RCA-1580	Cooperative Agreement review 1 by LAW A PMCM team	4	03-Jan-25	09-Jan-25	40						
RCA-1590	Cooperative Agreement review 1 by LAW A City Attorney	6	03-Jan-25	09-Jan-25	40						
RCA-1600	Caltrans D7 submits Cooperative Agreement to LAW A (for review 2)	8	10-Jan-25	17-Jan-25	40						
RCA-1610	Cooperative Agreement review 2 by LAW A City Attorney	0	20-Jan-25	27-Jan-25	40						
RCA-1620	LAW A returns Cooperative Agreement review 2 to Caltrans D7	3	28-Jan-25	03-Feb-25	40						
RCA-1630	Caltrans D7 submits Cooperative Agreement to LAW A (for approval)	1	03-Feb-25	03-Feb-25	40						
RCA-1640	LAW A approval of Cooperative Agreement	2	04-Feb-25	05-Feb-25	40						
RCA-1650	Caltrans D7 submits Cooperative Agreement Caltrans HQ (for review 1)	44	05-Feb-25	08-Apr-25	40						
RCA-1660	Caltrans HQ comments to Cooperative Agreement for LAW A response	1	09-Apr-25	09-Apr-25	40						
RCA-1670	Caltrans D7 submits Cooperative Agreement Caltrans HQ (for review 2)	10	10-Apr-25	23-Apr-25	40						
RCA-1680	Caltrans HQ submits Approved Cooperative Agreement for LAW A concurrence	1	24-Apr-25	24-Apr-25	40						
RCA-1690	Caltrans D7 submits Cooperative Agreement to LAW A (for execution)	18	25-Apr-25	21-May-25	40						
RCA-1700	LAW A Steering Committee Review	4	25-Apr-25	30-Apr-25	40						
Right-of-Way Acquisition											
Parcel 1 - 9960 S. Sepulveda Blvd - SWC CALAX LLC (Hyatt) (4124-026-005)											
LA-1650	Review Appraisal - Parcel 1	0	14-Aug-24	20-Oct-24							
LA-1660-1	Offer Letter - Parcel 1	49	21-Oct-24	19-Dec-24	255						
LA-1670	Notice of Hearing - Parcel 1	40	20-Dec-24	28-Jan-25	255						
LA-1680	RON Hearing & Board Adoption - Parcel 1	30	28-Jan-25	27-Feb-25	255						
LA-2090	RON Adopted City Council - Parcel 1	50	28-Feb-25	18-Apr-25	255						
LA-2090-1	Initial Pleadings 4 - Parcel 1	45	18-Apr-25	02-Jun-25	255						
LA-2090-2	Pleadings / Opposition - Parcel 1	45	03-Jun-25	17-Jul-25	255						
LA-2090-3	Hearing for Possession - Parcel 1	150	18-Jul-25	14-Dec-25	255						
LA-2090-4	Order of Possession - Parcel 1	45	16-Dec-25	28-Jan-26	255						
LA-2090-5	Obtain Possession - Parcel 1	1	28-Jan-26	28-Jan-26	255						
LA-2090-6	Property Delivery - Parcel 1	0		29-Jan-26	255						
Parcel 4 - 9700 Sepulveda Blvd - LA City Community College Dist (4124-026-900)											
LA-2770	Notice of Hearing - Parcel 4	47	18-Sep-24	17-Dec-24	47						
LA-2800	RON Hearing & Board Adoption - Parcel 4	30	18-Dec-24	16-Jan-25	47						
LA-2801	RON Adopted City Council - Parcel 4	45	17-Jan-25	07-Mar-25	47						
LA-2802	Initial Pleadings - Parcel 4	45	03-Mar-25	18-Apr-25	47						
LA-2803	Pleadings/ Opposition by LAW A - Parcel 4	45	17-Apr-25	31-May-25	47						





Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Value	RL	2025	2026	2027	2028	2029	2030
LAWA Locations													
SI_GTB_A5005	Drill Borings - Reach A3-A	1	23-Sep-24 A	01-Nov-24	0	-42		08-Nov-24, LAWA Locations					
SI_GTB_A3005	Drill Borings - Reach A3-B	6	07-Oct-24 A	08-Nov-24	0	-37		08-Nov-24, LAWA Locations					
Caltrans Locations													
SI_GTB_C1005	Drill Borings - Reach C1	20	12-Nov-24	13-Dec-24	0	-47		13-Dec-24, Caltrans Locations					
COLA Locations													
SI_GTB_B2005	Drill Borings - Reach B2	8	30-Aug-24 A	08-Nov-24	20	-57		08-Nov-24, COLA Locations					
Private Property Locations													
SI_GTB_P3005	Drill Borings - Reach D2	20	08-Oct-24 A	04-Dec-24	6	-16		04-Dec-24, Private Property Locations					
SI_GTB_P3015	Drill Borings - Reach D3	6	08-Oct-24 A	08-Nov-24	15	-12		08-Nov-24, Private Property Locations					
Geotechnical Calculations and Reports													
Geotechnical Report- Main Work Package #2													
SI_CCR_2000	Prepare Foundation Reports- Bridges- Main Work Package #2	29	01-Apr-24 A	13-Dec-24	0	-21		13-Dec-24, Geotechnical Report- Main Work Package #2					
SI_CCR_2005	Prepare Geotechnical Design Reports- Main Work Package #2	29	01-Apr-24 A	13-Dec-24	0	-21		13-Dec-24, Geotechnical Report- Main Work Package #2					
SI_CCR_2010	Prepare Foundation Reports- Retaining Walls- Main Work Package #2	29	01-Apr-24 A	13-Dec-24	0	-21		13-Dec-24, Geotechnical Report- Main Work Package #2					
SI_CCR_2015	Prepare Earth Retaining Structures Report- Main Work Package #2	29	01-Apr-24 A	13-Dec-24	0	-21		13-Dec-24, Geotechnical Report- Main Work Package #2					
Geotechnical Report- Main Work Package #3													
SI_CCR_2020	Prepare Foundation Reports- Bridges- Main Work Package #3	29	01-Apr-24 A	13-Dec-24	0	-21		13-Dec-24, Geotechnical Report- Main Work Package #3					
SI_CCR_2025	Prepare Geotechnical Design Reports- Main Work Package #3	29	01-Apr-24 A	13-Dec-24	0	-21		13-Dec-24, Geotechnical Report- Main Work Package #3					
SI_CCR_2030	Prepare Foundation Reports- Retaining Walls- Main Work Package #3	29	01-Apr-24 A	13-Dec-24	0	-21		13-Dec-24, Geotechnical Report- Main Work Package #3					
SI_CCR_2035	Prepare Earth Retaining Structures Report- Main Work Package #3	29	01-Apr-24 A	13-Dec-24	0	-21		13-Dec-24, Geotechnical Report- Main Work Package #3					
Utility Potholing													
Utility Potholing- Main Work Package #2													
SI_JTP_3005	Perform Potholing- Main Work Package #2	26	15-Feb-24 A	13-Dec-24	0	0		13-Dec-24, Utility Potholing- Main Work Package #2					
Utility Potholing- Main Work Package #3													
SI_JTP_3000	Perform Potholing- Main Work Package #3	26	15-Feb-24 A	13-Dec-24	0	0		13-Dec-24, Utility Potholing- Main Work Package #3					
Design & Precon | P1 | Design Development													
Design Development (DD)- Administrative Deliverables													
DD- Project Management Plan													
DD_PMP_1000	DD - Update Project Management Plan	0	22-Apr-24 A	17-Oct-24 A	-83			17-Oct-24 A, DD - Project Management Plan					
Design Development (DD)- Main Work Package #2													
Design Development- Main Work Package #2													
DD Main Work Package #2- DU-2		6	01-Apr-24 A	08-Nov-24	0	-6		08-Nov-24, Design Development- Main Work Package #2					
DD_MP2_2035	Develop DD Main Work Package #2- Design Unit 2	5	01-Apr-24 A	08-Nov-24	0	-6		08-Nov-24, DD Main Work Package #2- DU-2					
DD_MP2_2040	Perform QOC on DD Main Work Package #2- Design Unit 2	5	24-Oct-24 A	08-Nov-24	0	-6		08-Nov-24, DD Main Work Package #2- Design Unit 2					
DD Main Work Package #2- PW-1													
DD_MP2_2045	Develop DD Main Work Package #2- Project Wide 1	5	01-Apr-24 A	07-Nov-24	1	-2		07-Nov-24, DD Main Work Package #2- PW-1					
DD_MP2_2050	Perform QOC on DD Main Work Package #2- Project Wide 1	5	18-Oct-24 A	07-Nov-24	1	-2		07-Nov-24, DD Main Work Package #2- Project Wide 1					
QA/QC DD Main Work Package #2													
QA/QC DD Main Work Package #2- DU-2		10	15-Oct-24 A	14-Nov-24	0	0		14-Nov-24, QA/QC DD Main Work Package #2					
DD_MP2_2070	Perform Constructability Review of DD Main Work Package #2- DU-2	9	15-Oct-24 A	14-Nov-24	0	0		14-Nov-24, QA/QC DD Main Work Package #2- DU-2					
DD_MP2_2080	Conduct DD Main Work Package #2 Quality Review - DU-2	4	15-Oct-24 A	07-Nov-24	0	-2		07-Nov-24, DD Main Work Package #2- DU-2					

Date Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
Actual Level of Effort
Actual Work

Remaining Work
Critical Remaining Work
Milestone

Skaaska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
7 of 128

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Activity ID	Activity Name	Remaining Duration	Start	Finish	Tr. Var. - BL	2025	2026	2027	2028	2029	2030
DD-CE-10240	DD - Perform Post-Review Adjustments/Submit MWP#2 & MWP#3	5	31-Jan-25	06-Feb-25	218	DD - Perform Post-Review Adjustments/Submit MWP#2 & MWP#3					
Design & Precon | P1 | Sunrise Electrical Service Relocation Design		30	12-Sep-24 A	20-Dec-24	271	20-Dec-24, Design & Precon | P1 | Sunrise Electrical Service Relocation Design					
SES-10010	SERD - LAWA Review & Comment 90% Design Package	0	12-Sep-24 A	10-Oct-24 A		SERD - LAWA Review & Comment 90% Design Package					
SES-10020	SERD - Develop & Submit 100% IFC Ready Package	1	11-Oct-24 A	01-Nov-24	-6	SERD - Develop & Submit 100% IFC Ready Package					
SES-10030	SERD - LAWA Review & Comment 100% IFC Ready Package	30	02-Nov-24	01-Dec-24	407	SERD - LAWA Review & Comment 100% IFC Ready Package					
SES-10040	SERD - Procure Required Permits for Relocation	15	02-Dec-24	20-Dec-24	282	SERD - Procure Required Permits for Relocation					
SES-10050	SERD - Prepare & Submit IFC Documents	18	02-Dec-24	20-Dec-24	282	SERD - Prepare & Submit IFC Documents					
Design & Preconstruction | Phase 2		547	02-Aug-24 A	25-Jun-27	332	25-Jun-27, Design & Preconstruction | Phase 2					
Design & Precon | P2 | Construction Documents		288	02-Aug-24 A	15-Jun-26	211	15-Jun-26, Design & Precon | P2 | Construction Documents					
Design & Precon | P2 | Const Docs | Early Work Package #1		178	02-Aug-24 A	08-May-25	34	08-May-25, Design & Precon | P2 | Const Docs | Early Work Package #1					
Design & Precon | P2 | Early Work Package #1 | 90%		36	02-Aug-24 A	05-Jan-25	33	05-Jan-25, Design & Precon | P2 | Early Work Package #1 | 90%					
DS-11210	CD - Develop Final Design Early Works Package #1 Inc Comment Resolution to 90% Docs	24	02-Aug-24 A	36-Dec-24	0	CD - Develop Final Design Early Works Package #1 Inc Comment Resolution to 90% Docs					
DS-11220	CD - LAWA/AHJ Review of 90% Early Work Package #1	33	07-Dec-24	25-Jan-25	46	CD - LAWA/AHJ Review of 90% Early Work Package #1					
Design & Precon | Const Docs | Early Work Package #1 | 100%		52	05-Jan-25	19-Mar-25	34	19-Mar-25, Design & Precon | Const Docs | Early Work Package #1 | 100%					
DS-11830	CD - Develop Final Design Early Works Package #1 Inc Comment Resolution Balance	17	05-Jan-25	29-Jan-25	34	CD - Develop Final Design Early Works Package #1 Inc Comment Resolution Balance					
DS-11830	CD - Perform DQC on Final Design Early Works Package #1	5	29-Jan-25	24-Feb-25	34	CD - Perform DQC on Final Design Early Works Package #1					
DS-11840	CD - Perform Constructability Review of Final Design Early Works Package #1	3	05-Feb-25	07-Feb-25	34	CD - Perform Constructability Review of Final Design Early Works Package #1					
DS-11870	CD - Conduct Final Design Early Works Package #1 Quality Review & Submit	6	10-Feb-25	17-Feb-25	34	CD - Conduct Final Design Early Works Package #1 Quality Review & Submit					
DS-11390	CD - LAWA/AHJ Review of Final Design Early Works Package #1	30	18-Feb-25	19-Mar-25	48	CD - LAWA/AHJ Review of Final Design Early Works Package #1					
DS-11400	CD - LAWA/AHJ Readiness Review Final Design Early Works Package #1	7	18-Feb-25	24-Feb-25	48	CD - LAWA/AHJ Readiness Review Final Design Early Works Package #1					
Design & Precon | Const Docs | Early Work Package #1 | IFC		36	20-Mar-25	08-May-25	36	08-May-25, Design & Precon | Const Docs | Early Work Package #1 | IFC					
DS-11450	CD - Incorporate LAWA/AHJ Comments from Final Design Early Works Package #1 Review	10	20-Mar-25	02-Apr-25	34	CD - Incorporate LAWA/AHJ Comments from Final Design Early Works Package #1 Review					
DS-11470	CD - Perform DQC on IFC Early Works Package #1	2	03-Apr-25	04-Apr-25	34	CD - Perform DQC on IFC Early Works Package #1					
DS-11480	CD - Conduct IFC Early Works Package #1 Review & Submit	2	07-Apr-25	08-Apr-25	34	CD - Conduct IFC Early Works Package #1 Review & Submit					
DS-11490	CD - LAWA/AHJ Review of IFC Early Works Package #1	30	09-Apr-25	08-May-25	48	CD - LAWA/AHJ Review of IFC Early Works Package #1					
DS-11510	CD - LAWA/AHJ Readiness Review IFC Early Works Package #1	7	09-Apr-25	15-Apr-25	48	CD - LAWA/AHJ Readiness Review IFC Early Works Package #1					
DS-10130	CD - Issue IFC Early Works Package #1	0		08-May-25	34	CD - Issue IFC Early Works Package #1					
Design & Precon | P2 | Const Docs | Main Work Package #2		7			-11	10-Nov-25, Design & Precon | P2 | Const Docs | Main Work Package #2					
Design & Precon | P2 | Main Work Package #2 | IFP		51	18-Nov-24	09-Feb-25	54	09-Feb-25, Design & Precon | P2 | Main Work Package #2 | IFP					
DS-11270	CD - Develop Design Main Work Package #2 Inc Comment Resolution to IFP Docs	35	18-Nov-24	09-Jan-25	7	CD - Develop Design Main Work Package #2 Inc Comment Resolution to IFP Docs					
DS-11280	CD - LAWA/AHJ Review of IFP Main Work Package #2	30	10-Jan-25	08-Feb-25	78	CD - LAWA/AHJ Review of IFP Main Work Package #2					
Design & Precon | Const Docs | Main Work Package #2 | 90%		114	10-Jan-25	20-Jun-25	8	20-Jun-25, Design & Precon | Const Docs | Main Work Package #2 | 90%					
DS-11820	CD - Develop 90% Design Main Work Package #2 Inc Comment Resolution Balance	80	10-Jan-25	01-May-25	7	CD - Develop 90% Design Main Work Package #2 Inc Comment Resolution Balance					
DS-11520	CD - Perform DQC on 90% Design Main Work Package #2	5	02-May-25	09-May-25	7	CD - Perform DQC on 90% Design Main Work Package #2					
DS-11530	CD - Perform Constructability Review of 90% Design Main Work Package #2	3	09-May-25	13-May-25	7	CD - Perform Constructability Review of 90% Design Main Work Package #2					
DS-11540	CD - Conduct 90% Design Main Work Package #2 Quality Review & Submit	5	14-May-25	21-May-25	7	CD - Conduct 90% Design Main Work Package #2 Quality Review & Submit					
DS-11550	CD - LAWA/AHJ Review of 90% Design Main Work Package #2	30	22-May-25	20-Jun-25	12	CD - LAWA/AHJ Review of 90% Design Main Work Package #2					
DS-11560	CD - LAWA/AHJ Readiness Review 90% Design Main Work Package #2	7	22-May-25	28-May-25	12	CD - LAWA/AHJ Readiness Review 90% Design Main Work Package #2					
Design & Precon | Const Docs | Main Work Package #2 | IFC Ready (100%)		57	23-Jun-25	11-Sep-25	6	11-Sep-25, Design & Precon | Const Docs | Main Work Package #2 | IFC Ready (100%)					
DS-11590	CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #2 Review	25	23-Jun-25	26-Jul-25	8	CD - Incorporate LAWA/AHJ Comments from 90% Design Main Work Package #2 Review					
DS-11630	CD - Perform DQC on IFC Ready Main Work Package #2	3	29-Jul-25	04-Aug-25	8	CD - Perform DQC on IFC Ready Main Work Package #2					
DS-11650	CD - Conduct IFC Ready Main Work Package #2 Review & Submit	6	05-Aug-25	12-Aug-25	8	CD - Conduct IFC Ready Main Work Package #2 Review & Submit					

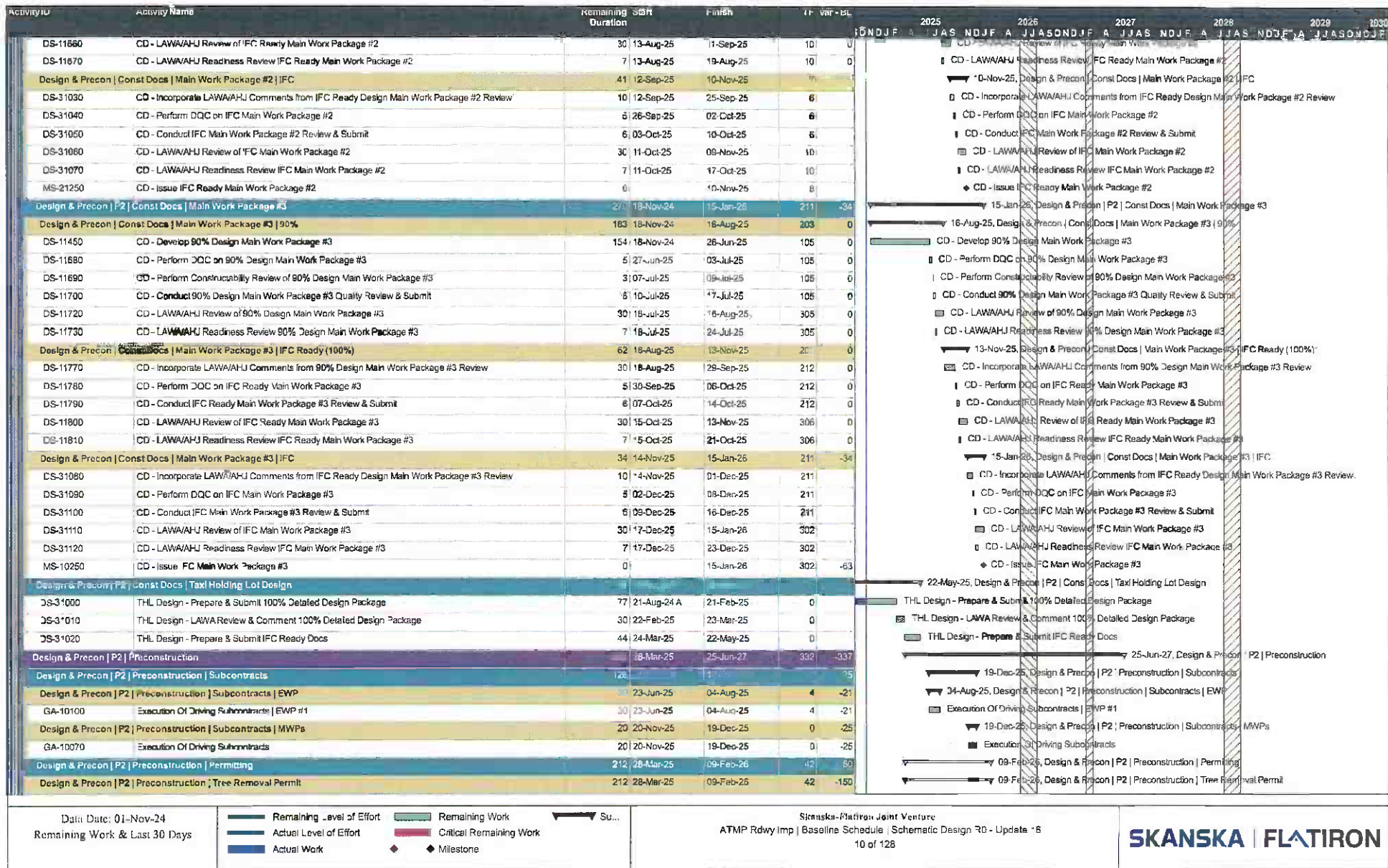
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Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work

Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Ventures Joint Venture
ATMP Rdwy Imp., Baseline Schedule | Schematic Design R0 - Update 16
3 of 128

SKANSKA | FLATIRON



Activity ID	Activity Name	Remaining Duration	Start	Finish	Pl	var	BL	2025	2026	2027	2028	2029	2030
GA-10080	Prepare Tree Removal Application | Tree Removal & Permitting	60	26-Mar-25	23-Jun-25	43	-159		MONDAY	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER
GA-10090	Application Review & Board Approval | Tree Removal & Permitting	160	23-Jun-25	09-Feb-26	43	-158							
MS-10180	Issue Tree Removal Permit | Tree Removal & Permitting	0		09-Feb-26	59	-230							
Design & Precon | P2 | Preconstruction | Submittals		209	09-May-25	19-Mar-26	402	-43							
Design & Precon | P2 | Preconstruction | Submittals | EWP		100	09-May-25	30-Sep-25	69	-21							
Design & Precon | P2 | Submittals | EWP | Temp Widening Of SB Sepulveda		40	05-Aug-25	30-Sep-25	4	-21							
SUB-10130	Prepare & Submit Subcontractor Submittals | EWP #1 | Temp Widening Of SB Sepulveda	20	05-Aug-25	02-Sep-25	4	-21							
SUB-10210	Review & Approve Subcontractor Submittals | EWP #1 | Temp Widening Of SB Sepulveda	20	03-Sep-25	30-Sep-25	4	-21							
Design & Precon | P2 | Submittals | EWP | Environmental Protection		65	09-May-25	09-Sep-25	84	-21							
SUB-10040	Prepare & Submit Stormwater Pollution Prevention Plan | EWP #1	30	09-May-25	23-Jun-25	6	-128							
SUB-10060	Review & Approve Stormwater Pollution Prevention Plan | EWP #1	30	28-Jun-25	04-Aug-25	6	-98							
SUB-10070	Prepare & Submit Dust Control Plan | EWP #1	25	23-Jun-25	28-Jul-25	84	-21							
SUB-10080	Review & Approve Dust Control | EWP #1	30	28-Jul-25	09-Sep-25	84	-21							
Design & Precon | P2 | Submittals | EWP | Segment A Enabling Along Century Blvd		40	05-Aug-25	30-Sep-25	4	-21							
SUB-10140	Prepare & Submit Subcontractor Submittals | EWP #1 | Segment A Enabling Along Century Blvd	20	05-Aug-25	02-Sep-25	4	-21							
SUB-10220	Review & Approve Subcontractor Submittals | EWP #1 | Segment A Enabling Along Century Blvd	20	03-Sep-25	30-Sep-25	4	-21							
Design & Precon | P2 | Submittals | EWP | Contaminated/Hazardous Material Mitigation Plan		70	23-Jun-25	30-Sep-25	4	-21							
SUB-10050	Prepare & Submit Contaminated/Hazardous Material Handling Plan | EWP #1	20	23-Jun-25	21-Jul-25	34	-218							
SUB-10090	Review & Approve Contaminated/Hazardous Material Handling Plan | EWP #1	20	05-Aug-25	02-Sep-25	24	-21							
SUB-10110	Prepare & Submit Subcontractor Submittals | EWP #1 | Contaminated/Hazardous Mitigation	20	05-Aug-25	02-Sep-25	4	-21							
SUB-10190	Review & Approve Subcontractor Submittals | EWP #1 | Contaminated/Hazardous Mitigation	20	03-Sep-25	30-Sep-25	4	-21							
Design & Precon | P2 | Submittals | EWP | Advanced Utility Relocations		40	05-Aug-25	30-Sep-25	4	-21							
SUB-10120	Prepare & Submit Subcontractor Submittals | EWP #1 | Advanced Utility Relocations	20	05-Aug-25	02-Sep-25	4	-21							
SUB-10200	Review & Approve Subcontractor Submittals | EWP #1 | Advanced Utility Relocations	20	03-Sep-25	30-Sep-25	4	-21							
Design & Precon | P2 | Submittals | EWP | Skyway Demolition For Concourse 0 Enab		40	05-Aug-25	30-Sep-25	4	-21							
SUB-10100	Prepare & Submit Subcontractor Submittals | EWP #1 | Skyway Demolition	20	05-Aug-25	02-Sep-25	4	-21							
SUB-10180	Review & Approve Subcontractor Submittals | EWP #1 | Skyway Demolition	20	03-Sep-25	30-Sep-25	4	-21							
Design & Precon | P2 | Submittals | EWP | Building & Site Demolition		40	05-Aug-25	30-Sep-25	4	-21							
SUB-10150	Prepare & Submit Subcontractor Submittals | EWP #1 | Building & Site Demolition	20	05-Aug-25	02-Sep-25	4	-21							
SUB-10230	Review & Approve Subcontractor Submittals | EWP #1 | Building & Site Demolition	20	03-Sep-25	30-Sep-25	4	-21							
Design & Precon | P2 | Submittals | EWP | Relocate ADA Fencing		40	05-Aug-25	30-Sep-25	4	-21							
SUB-10160	Prepare & Submit Subcontractor Submittals | EWP #1 | ADA Fence Relocations	20	05-Aug-25	02-Sep-25	4	-21							
SUB-10240	Review & Approve Subcontractor Submittals | EWP #1 | ADA Fence Relocations	20	03-Sep-25	30-Sep-25	4	-21							
Design & Precon | P2 | Preconstruction | Submittals | MWPs		58	20-Nov-25	23-Feb-26	248	-25							
SUB-10170	Prepare & Submit Initial Final Workplans	20	20-Nov-25	19-Dec-25	208	-49							
SUB-10250	Review & Approve Initial Final Workplans	30	20-Dec-25	18-Jan-26	299	-71							
SUB-10280	Prepare & Submit Initial Subcontractor Submittals	20	22-Dec-25	20-Jan-26	3	-25							
SUB-10270	Prepare & Submit Initial CIDH Reinforcing Steel Shop Drawings	20	22-Dec-25	20-Jan-26	0	-25							
SUB-10290	Prepare & Submit Initial Column Reinforcing Steel Shop Drawings	20	22-Dec-25	20-Jan-26	119	-25							
SUB-10290	Prepare & Submit Initial Column & Abutment Form Shop Drawings	20	22-Dec-25	20-Jan-26	88	-25							
SUB-10310	Prepare & Submit Initial Bridge Bearing Shop Drawings	30	22-Dec-25	03-Feb-26	257	-25							
SUB-10320	Prepare & Submit Initial Abutment Rebar Submittals	20	22-Dec-25	20-Jan-26	79	-25							

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

■ Remaining Level of Effort
■ Actual Level of Effort
■ Actual Work
■ Remaining Work
■ Critical Remaining Work
◆ Milestone

Summary

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
11 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
SUB-10330	Review & Approve Initial Subcontractor Submittals	30	21-Jan-26	10-Feb-26	6	-39							
SUB-10340	Review & Approve Initial CIDH Reinforcing Steel Shop Drawings	14	21-Jan-26	03-Feb-26	0	-39							
SUB-10350	Review & Approve Initial Column Reinforcing Steel Shop Drawings	14	21-Jan-26	03-Feb-26	169	-39							
SUB-10360	Review & Approve Initial Column & Abutment Form Shop Drawings	20	21-Jan-26	08-Feb-26	125	-39							
SUB-10370	Review & Approve Initial Abutment Rebar Submittals	20	21-Jan-26	08-Feb-26	111	-39							
SUB-10380	Review & Approve Initial Bridge Bearing Shop Drawings	20	04-Feb-26	23-Feb-26	370	-36							
Design & Precon | P2 | Preconstruction | Submittals | Sep Ped Bridge		51	10-Sep-25	19-Mar-26	402								
SUB-10400	Prepare & Submit Sep Ped Bridge Steel Truss Shop Drawings	40	22-Dec-25	17-Feb-26	412								
SUB-10410	Review & Approve Sep Ped Bridge Steel Truss Shop Drawings	30	18-Feb-26	19-Mar-26	580								
Design & Precon | P2 | Preconstruction | Procurement		171	04-Feb-26	06-Oct-26	393	-153							
Design & Precon | P2 | Preconstruction | Procurement | Sep Ped Bridge		140	20-Mar-26	06-Oct-26	393								
PR-10110	Fabricate Sep Ped Bridge Steel Truss	80	20-Mar-26	15-Sep-26	580								
PR-10120	Pre-Assemble Sep Ped Bridge Steel Truss	15	18-Sep-26	06-Oct-26	393								
Design & Precon | P2 | Preconstruction | MWPs | Procurement		34	04-Feb-26	23-Mar-26	257	-26							
PR-10040	Fabricate Initial CIDH Reinforcing Steel	20	04-Feb-26	03-Mar-26	0	-26							
PR-10050	Fabricate Initial Column Reinforcing Steel	20	04-Feb-26	03-Mar-26	119	-26							
PR-10060	Fabricate Initial Column Forms	20	10-Feb-26	09-Mar-26	115	-27							
PR-10070	Fabricate Initial Abutment Forms	16	10-Feb-26	03-Mar-26	88	-27							
PR-10080	Fabricate Initial Abutment Rebar Reinforcing Steel	20	10-Feb-26	09-Mar-26	78	-27							
PR-10100	Fabricate Initial Bridge Bearings	20	24-Feb-26	23-Mar-26	257	-26							
Design & Precon | P2 | Preconstruction | Mobilization		46	05-Aug-25	25-Jun-27	332	-346							
Design & Precon | P2 | Preconstruction | Mobilization | EWP		44	05-Aug-25	06-Oct-25	4	-16							
MOR-10040	Mobilize Subcontractors & Self-Perform Crews for Stage 1 E&S & Dust Control	4	05-Aug-25	08-Aug-25	6	-51							
MOB-10050	Develop Temporary Field Offices & Yards | EWP #1	20	11-Aug-25	08-Sep-25	20	0							
MOB-10060	Mobilize Balance of Subcontractors & Self-Perform Crews for Stage 1	4	01-Oct-25	06-Oct-25	4	-16							
Design & Precon | P2 | Preconstruction | Mobilization | MWPs		388	20-Nov-25	25-Jun-27	332	-346							
MOR-10070	Upgrade Capacity Of Temporary Field Offices & Yards	25	20-Nov-25	29-Dec-25	16	-25							
MOB-10080	Mobilize CIDH Subcontractor Oscillator 1 - South of 98th	5	25-Feb-26	03-Mar-26	0	-21							
MOB-10090	Mobilize CIDH Subcontractor Oscillator 2 - North of 98th	5	25-Feb-26	03-Mar-26	0	-26							
MOB-10100	Mobilize Elevator Sub	5	21-Jun-27	25-Jun-27	332								
Design & Precon | P2 | CIDH Test Pile Program													
Design & Precon | P2 | CIDH Test Pile Program | Design													
TPP-10010	TPP - Prepare Design Drawings	6	22-Oct-24 A	08-Nov-24	16								
TPP-10060	TPP - Prepare Specifications	6	22-Oct-24 A	08-Nov-24	16								
Design & Precon | P2 | CIDH Test Pile Program | Permitting													
Design & Precon | P2 | CIDH Test Pile Program | Permitting | Site 1		73	07-Jan-25	18-Apr-25	1								
TPP-10020	TPP - Prepare & Submit Form 7460 - Site 1	10	07-Jan-25	20-Jan-25	14								
TPP-10050	TPP - FAA Review & Provide Determination - Site 1	30	21-Jan-25	19-Feb-25	18								
TPP-10090	TPP - Prepare & Submit ASR/LIR - Site 1	20	20-Feb-25	19-Mar-25	12								
TPP-10070	TPP - LWA Review/Approve ASR/LIR - Site 1	30	20-Mar-25	18-Apr-25	18								
TPP-10030	TPP - Procure County Well Permits - Site 1	30	20-Mar-25	18-Apr-25	18								
Design & Precon P2 CIDH Test Pile Program Permitting Site 2		73	07-Jan-25	18-Apr-25	21								

Data Date: 01-Nov-24
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Skanska-Flatiron Joint Venture
 ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
 12 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF Var - BL	2025	2026	2027	2028	2029	2030
TPP-10410	TPP - Prepare & Submit Form 7460 - Site 2	10	07-Jan-25	20-Jan-25	24						
TPP-10420	TPP - FAA Review & Provide Determination - Site 2	30	21-Jan-25	19-Feb-25	32						
TPP-10400	TPP - Prepare & Submit ASR/LIR - Site 2	20	20-Feb-25	18-Mar-25	22						
TPP-10430	TPP - LAWA Review/Approve ASR/LIR - Site 2	30	20-Mar-25	18-Apr-25	31						
TPP-10440	TPP - Procure County Well Permits - Site 2	30	20-Mar-25	18-Apr-25	31						
Design & Precon | P2 | CIDH Test Pile Program | Permitting | Site 3		70	07-Jan-25	18-Apr-25	35						
TPP-10460	TPP - Prepare & Submit Form 7460 - Site 3	10	07-Jan-25	20-Jan-25	34						
TPP-10470	TPP - FAA Review & Provide Determination - Site 3	30	21-Jan-25	19-Feb-25	46						
TPP-10450	TPP - Prepare & Submit ASR/LIR - Site 3	20	20-Feb-25	19-Mar-25	32						
TPP-10480	TPP - LAWA Review/Approve ASR/LIR - Site 3	30	20-Mar-25	18-Apr-25	45						
TPP-10490	TPP - Procure County Well Permits - Site 3	30	20-Mar-25	18-Apr-25	45						
Design & Precon | P2 | CIDH Test Pile Program | Subcontractor Procurement											
TPP-10040	TPP - Develop Subcontract Bid Package	7	03-Oct-24	12-Nov-24	13						
TPP-10080	TPP - Issue Subcontract Bid Package	1	13-Nov-24	13-Nov-24	14						
TPP-10090	TPP - Subcontractor Pricing Period	20	14-Nov-24	13-Dec-24	14						
TPP-10130	TPP - Bid Analysis & Recommendation	3	16-Dec-24	18-Dec-24	14						
TPP-10110	TPP - C-Letter Review & Approve	6	19-Dec-24	25-Dec-24	14						
TPP-10150	TPP - Award/Contract Execution	6	27-Dec-24	03-Jan-25	18						
TPP-10170	TPP - Subcontractor NTP	1	06-Jan-25	06-Jan-25	14						
Design & Precon | P2 | CIDH Test Pile Program | Test Pile Installation		130	07-Jan-25	10-Jul-25	12						
Design & Precon | P2 | CIDH Test Pile Program | Test Pile Installation | Submittals & Procurement		50	07-Jan-25	18-Mar-25	38						
TPP-10180	TPP - Prepare & Submit Test Pile Submittals	20	07-Jan-25	03-Feb-25	38						
TPP-10200	TPP - Review & Approve Test Pile Submittals	21	04-Feb-25	04-Mar-25	38						
TPP-10190	TPP - Procure Reinforcing Steel/O-Cell Materials	25	05-Feb-25	11-Mar-25	38						
TPP-10210	TPP - Mobilize CIDH Subcontractor	5	12-Mar-25	18-Mar-25	38						
Design & Precon | P2 | CIDH Test Pile Program | Test Pile Installation | Site Preparation		10	11-Apr-25	02-May-25	26						
TPP-10120	TPP - Establish Fencing/SWPPP - Site 1	2	21-Apr-25	22-Apr-25	12						
TPP-10130	TPP - Perform Site Investigations - Site 1	4	23-Apr-25	28-Apr-25	12						
TPP-10140	TPP - Establish Fencing/SWPPP - Site 2	2	23-Apr-25	24-Apr-25	19						
TPP-10160	TPP - Establish Fencing/SWPPP - Site 3	2	25-Apr-25	28-Apr-25	26						
TPP-10500	TPP - Perform Site Investigations - Site 2	4	25-Apr-25	30-Apr-25	19						
TPP-10510	TPP - Perform Site Investigations - Site 3	4	28-Apr-25	02-May-25	26						
Design & Precon | P2 | CIDH Test Pile Program | Test Pile Installation | Site 1		13	18-May-25	21-May-25	38						
TPP-10220	TPP - Assemble Cage/O-Cells - Site 1	3	18-May-25	21-May-25	38						
TPP-10230	TPP - Install CIDH Test Piles (2 EA) - Site 1	6	28-Apr-25	08-May-25	12						
TPP-10260	TPP - Cure CIDH - Site 1	10	07-May-25	20-May-25	30						
TPP-10310	TPP - Perform Pile Testing - Site 1	2	21-May-25	22-May-25	30						
TPP-10320	TPP - Purge/Grout Hydraulic Lines - Site 1	2	23-May-25	27-May-25	43						
Design & Precon | P2 | CIDH Test Pile Program | Test Pile Installation | Site 2		50	24-May-25	08-Jun-25	34						
TPP-10240	TPP - Assemble Cage/O-Cells - Site 2	3	24-Mar-25	26-Mar-25	44						
TPP-10270	TPP - On-Site Mobilization CIDH Subcontractor Site 1 to Site 2	3	07-May-25	09-May-25	12						
TPP-10280	TPP - Install CIDH Test Piles (2 EA) - Site 2	6	12-May-25	19-May-25	12						

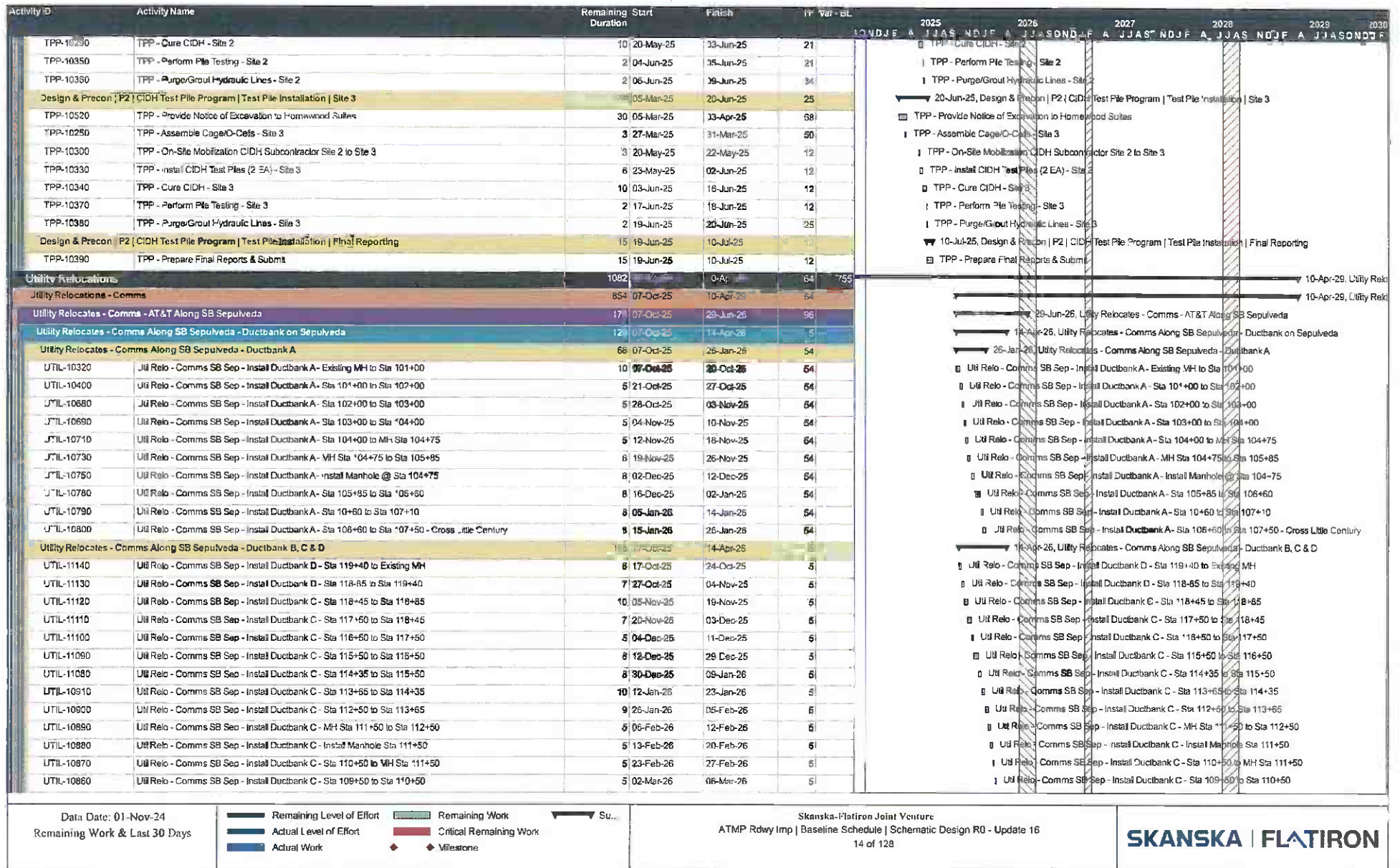
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Skanska-Matiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
13 of 128

SKANSKA | FLATIRON



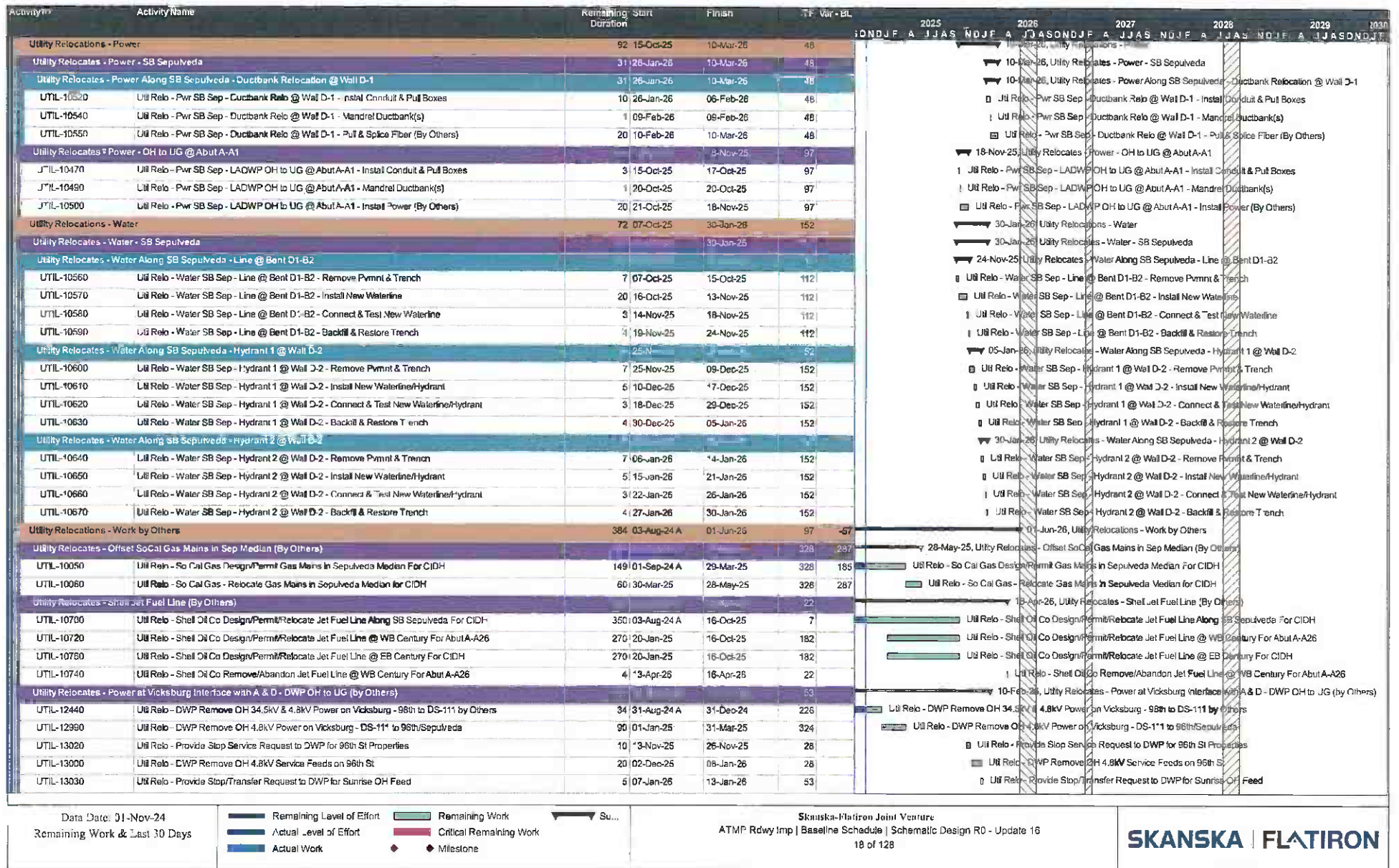
Activity ID	Activity Name	Remaining Duration	Start	Finish	FF	Var	BL	2025	2026	2027	2028	2029	2030
UTIL-10850	Util Relo - Comms SB Sep - Install Ductbank C - Sta 108+50 to Sta 109+50	5	09-Mar-26	13-Mar-26	5			09-Mar-26	13-Mar-26	13-Mar-26	13-Mar-26	13-Mar-26	13-Mar-26
UTIL-10840	Util Relo - Comms SB Sep - Install Ductbank C - Sta 108+00 to Sta 108+50	6	16-Mar-26	23-Mar-26	6			16-Mar-26	23-Mar-26	23-Mar-26	23-Mar-26	23-Mar-26	23-Mar-26
UTIL-10830	Util Relo - Comms SB Sep - Install Ductbank B - Sta 107+75 to Sta 108+00	8	24-Mar-26	02-Apr-26	5			24-Mar-26	02-Apr-26	02-Apr-26	02-Apr-26	02-Apr-26	02-Apr-26
UTIL-10810	Util Relo - Comms SB Sep - Install Ductbank B - Sta 107+50 to Sta 107+75	8	03-Apr-26	14-Apr-26	5			03-Apr-26	14-Apr-26	14-Apr-26	14-Apr-26	14-Apr-26	14-Apr-26
Utility Relocates - Comms Along SB Sepulveda - Ductbank E to CTA		31											
UTIL-10330	Util Relo - Comms SB Sep - Install Ductbank E - Main Line to Sta 2+60	10	27-Jan-26	09-Feb-26	54			27-Jan-26	09-Feb-26	09-Feb-26	09-Feb-26	09-Feb-26	09-Feb-26
UTIL-11150	Util Relo - Comms SB Sep - Install Ductbank E - Sta 2+60 to Sta 3+30	8	10-Feb-26	20-Feb-26	54			10-Feb-26	20-Feb-26	20-Feb-26	20-Feb-26	20-Feb-26	20-Feb-26
UTIL-11160	Util Relo - Comms SB Sep - Install Ductbank E - Sta 3+30 to Sta 4+00	7	23-Feb-26	03-Mar-26	54			23-Feb-26	03-Mar-26	03-Mar-26	03-Mar-26	03-Mar-26	03-Mar-26
UTIL-11300	Util Relo - Comms SB Sep - Install Ductbank E - Sta 4+00 to Existing MH	6	04-Mar-26	11-Mar-26	54			04-Mar-26	11-Mar-26	11-Mar-26	11-Mar-26	11-Mar-26	11-Mar-26
Utility Relocates - Comms Along SB Sepulveda - Ductbank F to Little Century		5											
UTIL-10340	Util Relo - Comms SB Sep - Install Ductbank F - Main Line to Sta 3+75	7	15-Apr-26	23-Apr-26	5			15-Apr-26	23-Apr-26	23-Apr-26	23-Apr-26	23-Apr-26	23-Apr-26
UTIL-11820	Util Relo - Comms SB Sep - Install Ductbank F - Sta 3+75 to Existing MH	8	24-Apr-26	05-May-26	5			24-Apr-26	05-May-26	05-May-26	05-May-26	05-May-26	05-May-26
Utility Relocates - Comms Along SB Sepulveda - Ductbank G to 96th St		22											
UTIL-10350	Util Relo - Comms SB Sep - Install Ductbank G - Main Line to Sta 4+65	8	05-Nov-25	17-Nov-25	93			05-Nov-25	17-Nov-25	17-Nov-25	17-Nov-25	17-Nov-25	17-Nov-25
UTIL-11830	Util Relo - Comms SB Sep - Install Ductbank G - Sta 4+65 to Sta 5+35	10	18-Nov-25	04-Dec-25	93			18-Nov-25	04-Dec-25	04-Dec-25	04-Dec-25	04-Dec-25	04-Dec-25
UTIL-12280	Util Relo - Comms SB Sep - Install Ductbank G - Sta 5+35 to Existing MH	10	05-Dec-25	29-Dec-25	93			05-Dec-25	29-Dec-25	29-Dec-25	29-Dec-25	29-Dec-25	29-Dec-25
Utility Relocates - Comms Along SB Sepulveda - Mandrel		15											
UTIL-10370	Util Relo - Comms SB Sep - Mandrel - Sepulveda MH Sta 119+90 to New MH Sta 111+50	2	02-Mar-26	03-Mar-26	61			02-Mar-26	03-Mar-26	03-Mar-26	03-Mar-26	03-Mar-26	03-Mar-26
UTIL-12290	Util Relo - Comms SB Sep - Mandrel - 96th St MH to New MH Sta 111+50	2	02-Mar-26	03-Mar-26	61			02-Mar-26	03-Mar-26	03-Mar-26	03-Mar-26	03-Mar-26	03-Mar-26
UTIL-12300	Util Relo - Comms SB Sep - Mandrel - New MH Sta 111+50 to CTA MH	1	15-Apr-26	15-Apr-26	30			15-Apr-26	15-Apr-26	15-Apr-26	15-Apr-26	15-Apr-26	15-Apr-26
UTIL-12320	Util Relo - Comms SB Sep - Mandrel - New MH Sta 111+50 to New MH Sta 104+75	2	15-Apr-26	16-Apr-26	27			15-Apr-26	16-Apr-26	16-Apr-26	16-Apr-26	16-Apr-26	16-Apr-26
UTIL-12330	Util Relo - Comms SB Sep - Mandrel - New MH Sta 104+75 to Sep MH Sta 100+00	2	17-Apr-26	20-Apr-26	27			17-Apr-26	20-Apr-26	20-Apr-26	20-Apr-26	20-Apr-26	20-Apr-26
UTIL-12310	Util Relo - Comms SB Sep - Mandrel - New MH Sta 111+50 to Little Century MH	1	06-May-26	06-May-26	16			06-May-26	06-May-26	06-May-26	06-May-26	06-May-26	06-May-26
Utility Relocates - Comms Along SB Sepulveda - Pull & Splice Fiber		40	16-Apr-26	11-Jun-26	15			16-Apr-26	11-Jun-26	11-Jun-26	11-Jun-26	11-Jun-26	11-Jun-26
UTIL-12350	Util Relo - Comms SB Sep - Pull & Splice Fiber - 96th St MH to CTA	20	16-Apr-26	13-May-26	30			16-Apr-26	13-May-26	13-May-26	13-May-26	13-May-26	13-May-26
UTIL-12340	Util Relo - Comms SB Sep - Pull & Splice Fiber - 96th St MH to Sep MH Sta 100+00	20	21-Apr-26	18-May-26	27			21-Apr-26	18-May-26	18-May-26	18-May-26	18-May-26	18-May-26
UTIL-10390	Util Relo - Comms SB Sep - Pull & Splice Fiber - Little Century MH to Sep MH Sta 119+90	20	07-May-26	04-Jun-26	16			07-May-26	04-Jun-26	04-Jun-26	04-Jun-26	04-Jun-26	04-Jun-26
UTIL-12360	Util Relo - Comms SB Sep - Pull & Splice Fiber - Abandon Ex Sep Ductbanks (By Others)	5	05-Jun-26	11-Jun-26	16			05-Jun-26	11-Jun-26	11-Jun-26	11-Jun-26	11-Jun-26	11-Jun-26
Utility Relocates - Comms Along SB Sepulveda - Restoration		30	30-Dec-25	05-Jan-26	99			30-Dec-25	05-Jan-26	05-Jan-26	05-Jan-26	05-Jan-26	05-Jan-26
UTIL-12390	Util Relo - Comms SB Sep - Restoration - Restore Trench Pavement NB Sep & 96th St	4	30-Dec-25	05-Jan-26	99			30-Dec-25	05-Jan-26	05-Jan-26	05-Jan-26	05-Jan-26	05-Jan-26
UTIL-12400	Util Relo - Comms SB Sep - Restoration - Restore Trench Pavement CTA	3	12-Mar-26	16-Mar-26	170			12-Mar-26	16-Mar-26	16-Mar-26	16-Mar-26	16-Mar-26	16-Mar-26
UTIL-12410	Util Relo - Comms SB Sep - Restoration - Restore CTA Median Turn Pocket	5	12-Mar-26	18-Mar-26	168			12-Mar-26	18-Mar-26	18-Mar-26	18-Mar-26	18-Mar-26	18-Mar-26
UTIL-10380	Util Relo - Comms SB Sep - Restoration - Restore Trench Pavement SB Sep No of Century	5	24-Mar-26	30-Mar-26	34			24-Mar-26	30-Mar-26	30-Mar-26	30-Mar-26	30-Mar-26	30-Mar-26
UTIL-12370	Util Relo - Comms SB Sep - Restoration - Restore Trench Pavement SB Sep So of Century	5	15-Apr-26	21-Apr-26	18			15-Apr-26	21-Apr-26	21-Apr-26	21-Apr-26	21-Apr-26	21-Apr-26
UTIL-12380	Util Relo - Comms SB Sep - Restoration - Restore Trench Pavement NB Sep @ Little Century	3	06-May-26	08-May-26	5			06-May-26	08-May-26	08-May-26	08-May-26	08-May-26	08-May-26
UTIL-12420	Util Relo - Comms SB Sep - Restoration - Restore Sepulveda Median	5	06-May-26	12-May-26	129			06-May-26	12-May-26	12-May-26	12-May-26	12-May-26	12-May-26
UTIL-12430	Util Relo - Comms SB Sep - Restoration - Restore Little Century Sidewalk	3	06-May-26	08-May-26	131			06-May-26	08-May-26	08-May-26	08-May-26	08-May-26	08-May-26
Utility Relocates - Comms Along SB Sepulveda - LADOT ATSAC		4	24-Jun-26	25-Jun-26	86			24-Jun-26	25-Jun-26	25-Jun-26	25-Jun-26	25-Jun-26	25-Jun-26
UTIL-10310	Util Relo - Comms SB Sep - LADOT ATSAC Line 1 @ Abut A-A1 - Remove & Cap Existing	2	24-Jun-26	25-Jun-26	5			24-Jun-26	25-Jun-26	25-Jun-26	25-Jun-26	25-Jun-26	25-Jun-26
UTIL-10360	Util Relo - Comms SB Sep - LADOT ATSAC Line 2 @ Wall D-2 - Remove & Cap Existing	2	25-Jun-26	29-Jun-26	86			25-Jun-26	29-Jun-26	29-Jun-26	29-Jun-26	29-Jun-26	29-Jun-26
Utility Relocates - Comms - Vicksburg Interface with A & D		55	12-Dec-25	27-Feb-26	45			12-Dec-25	27-Feb-26	27-Feb-26	27-Feb-26	27-Feb-26	27-Feb-26
UTIL-11070	Util Relo - Vicksburg Comms OH to UG - Remove Ex OH Wire & Poles	4	24-Feb-26	27-Feb-26	45			24-Feb-26	27-Feb-26	27-Feb-26	27-Feb-26	27-Feb-26	27-Feb-26

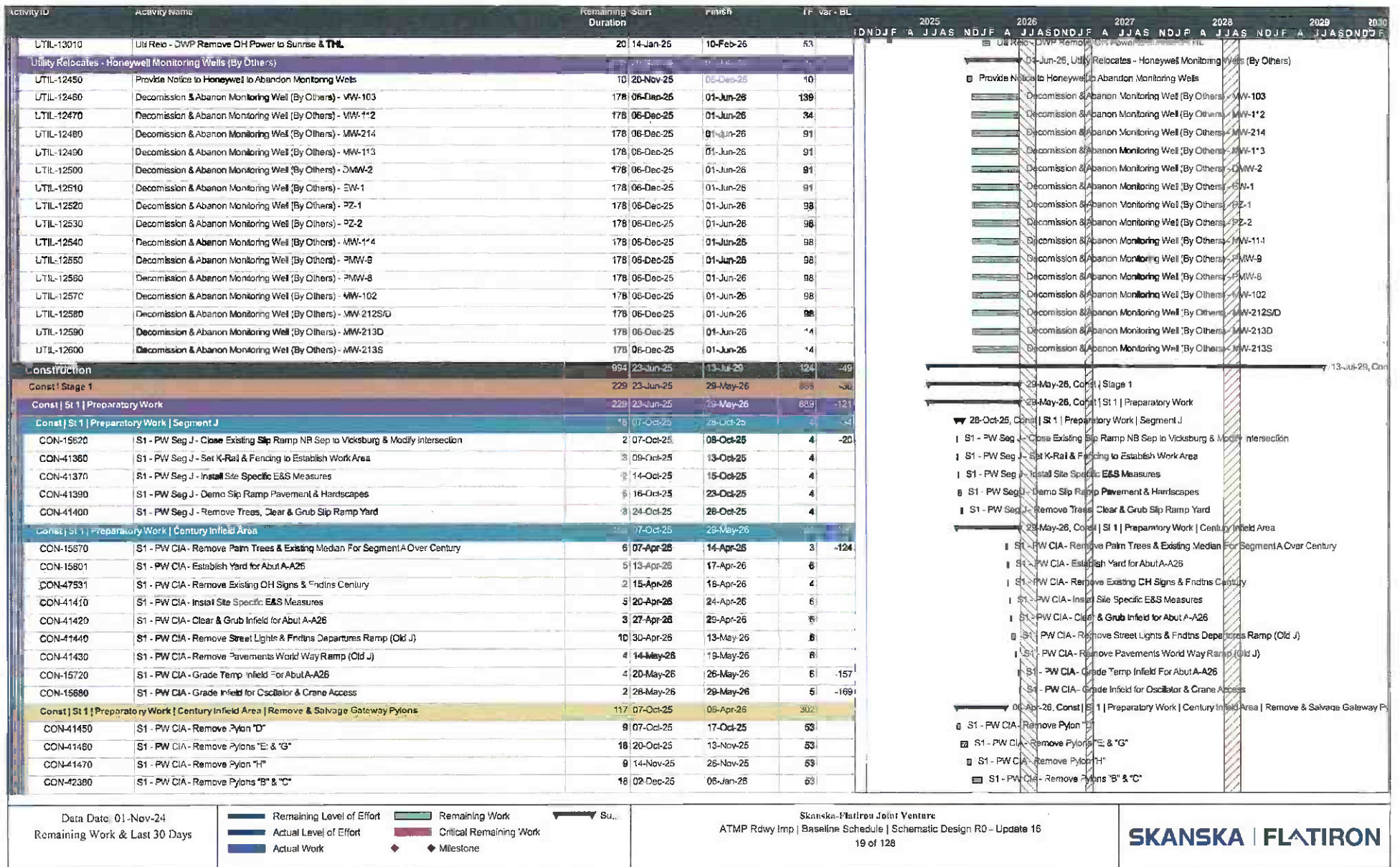
Date Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
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Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
15 of 128

SKANSKA | FLATIRON





Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
CON-15770	S1 - Fine Grade ABC | Temp Widening of SB Sepulveda For A3/D3 Bents	1	17-Dec-25	17-Dec-25	97	10		1	1	1	1	1	1
CON-15790	S1 - Place Temporary HMA | Temp Widening of SB Sepulveda For A3/D3 Bents	1	18-Dec-25	18-Dec-25	97	10		1	1	1	1	1	1
CON-47361	S1 - Adjust MOT Measures | Temp Widening of SB Sepulveda For A3/D3 Bents	2	19-Dec-25	29-Dec-25	97			1	1	1	1	1	1
Const | S1 | Temp Paving | Century Blvd		99	17-Jan-26	21-May-26		-25		1	1	1	1	1	1
Const | S1 | Temp Paving | Century Blvd | EB Widening		49	23-Jan-26	02-Apr-26				1	1	1	1	1	1
CON-47371	S1 - EB Widening - Establish MOT Measures	2	23-Jan-26	26-Jan-26	81			1	1	1	1	1	1
CON-47381	S1 - EB Widening - Install Temp Drainage	10	27-Jan-26	09-Feb-26	81			1	1	1	1	1	1
CON-16290	S1 - EB Widening - Fill to Subgrade Elev	15	10-Feb-26	02-Mar-26	81	-99		1	1	1	1	1	1
CON-42530	S1 - EB Widening - Relocate Street Lighting	3	03-Mar-26	05-Mar-26	81			1	1	1	1	1	1
CON-16280	S1 - EB Widening - Demo Existing Curb	3	06-Mar-26	10-Mar-26	81	-120		1	1	1	1	1	1
CON-16330	S1 - EB Widening - Fine Grd Subgrade	4	11-Mar-26	16-Mar-26	81	-106		1	1	1	1	1	1
CON-16300	S1 - EB Widening - Place & Fine Grade Agg Base	6	17-Mar-26	24-Mar-26	81	-108		1	1	1	1	1	1
CON-16310	S1 - EB Widening - Place ACP	1	25-Mar-26	25-Mar-26	81	-108		1	1	1	1	1	1
CON-16320	S1 - EB Widening - Install Temp Rdwy Finishes	4	26-Mar-26	31-Mar-26	81	-110		1	1	1	1	1	1
CON-47501	S1 - EB Widening - Shift Traffic to Temp EB Widening	2	01-Apr-26	02-Apr-26	81			1	1	1	1	1	1
Const | S1 | Temp Paving | Century Blvd | WB for Seg 1		3	02-Mar-26	03-Mar-26				1	1	1	1	1	1
CON-47421	S1 - Widening @ I-44 - Establish MOT Measures	2	02-Mar-26	03-Mar-26	192			1	1	1	1	1	1
CON-47431	S1 - Widening @ I-44 - Clear & Grub	2	04-Mar-26	05-Mar-26	192			1	1	1	1	1	1
CON-47441	S1 - Widening @ I-44 - Place Embankment	5	06-Mar-26	12-Mar-26	192			1	1	1	1	1	1
CON-45360	S1 - Widening @ I-44 - Demo Existing Curb	3	13-Mar-26	17-Mar-26	198			1	1	1	1	1	1
CON-45410	S1 - Widening @ I-44 - Fine Grd Subgrade	2	18-Mar-26	19-Mar-26	198			1	1	1	1	1	1
CON-45380	S1 - Widening @ I-44 - Place & Fine Grade Agg Base	3	20-Mar-26	24-Mar-26	198			1	1	1	1	1	1
CON-45390	S1 - Widening @ I-44 - Place ACP	1	25-Mar-26	25-Mar-26	198			1	1	1	1	1	1
CON-45400	S1 - Widening @ I-44 - Install Temp Rdwy Finishes	4	26-Mar-26	31-Mar-26	198			1	1	1	1	1	1
Const | S1 | Temp Paving | Century Blvd | Hook Ramp		25	07-Jan-26	27-Feb-26		54		1	1	1	1	1	1
CON-47451	S1 - Hook Ramp - Establish MOT Measures	2	07-Jan-26	08-Jan-26	53			1	1	1	1	1	1
CON-47461	S1 - Hook Ramp - Clear & Grub	2	09-Jan-26	12-Jan-26	53			1	1	1	1	1	1
CON-47471	S1 - Hook Ramp - Place Embankment	6	13-Jan-26	20-Jan-26	53			1	1	1	1	1	1
CON-45490	S1 - Hook Ramp - Relocate Street Lighting	3	21-Jan-26	23-Jan-26	53			1	1	1	1	1	1
CON-45430	S1 - Hook Ramp - Demo Existing Curb	3	26-Jan-26	28-Jan-26	54			1	1	1	1	1	1
CON-47481	S1 - Hook Ramp - Install Temp Drainage	10	29-Jan-26	11-Feb-26	54			1	1	1	1	1	1
CON-45480	S1 - Hook Ramp - Fine Grd Subgrade	3	12-Feb-26	16-Feb-26	54			1	1	1	1	1	1
CON-45450	S1 - Hook Ramp - Place & Fine Grade Agg Base	4	17-Feb-26	20-Feb-26	54			1	1	1	1	1	1
CON-45460	S1 - Hook Ramp - Place ACP	1	23-Feb-26	23-Feb-26	54			1	1	1	1	1	1
CON-45470	S1 - Hook Ramp - Install Temp Rdwy Finishes	4	24-Feb-26	27-Feb-26	54			1	1	1	1	1	1
Const | S1 | Temp Paving | Century Blvd | WB Crossover		15	03-Apr-26	17-May-26		-13		1	1	1	1	1	1
CON-47491	S1 - WB Century - Establish MOT Measures for BC East Tie In & Crossover	2	03-Apr-26	06-Apr-26	3			1	1	1	1	1	1
CON-47391	S1 - WB X-Over - Modify Traffic Signals @ Jetway/Century	3	07-Apr-26	09-Apr-26	13			1	1	1	1	1	1
CON-16240	S1 - WB X-Over - Demo Existing Curb & Pmnt	4	10-Apr-26	15-Apr-26	13	-117		1	1	1	1	1	1
CON-16250	S1 - WB X-Over - Perform Rdwy Exc & Fine Grd Subgrade	4	30-Apr-26	05-May-26	3	-127		1	1	1	1	1	1
CON-16260	S1 - WB X-Over - Place & Fine Grade Agg Base	4	08-May-26	11-May-26	3	-127		1	1	1	1	1	1
CON-16270	S1 - WB X-Over - Place ACP	1	12-May-26	12-May-26	3	-127		1	1	1	1	1	1

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work

Remaining Work
 Critical Remaining Work
 Milestone

Sum...

Skanska-Flatiron Joint Venture
 ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
 21 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
UTIL-11800	Util Relo - LAWA Box Culvert - Line A - CIP Box - Backfill Box Culvert		9/12-Jan-26	22-Jan-26									
Const | St 1 | LAWA Box Culvert South of Century - Line A1 Lateral			24/07-Oct-25	07-Nov-25									
UTIL-12220	Util Relo - LAWA Box Culvert - Line A1 - Lateral - Develop Jacking Pit		6/07-Oct-25	13-Oct-25									
UTIL-12230	Util Relo - LAWA Box Culvert - Line A1 - Lateral - Develop Receiving Pit		6/14-Oct-25	20-Oct-25									
UTIL-12240	Util Relo - LAWA Box Culvert - Line A1 - Lateral - Jack & Bore RCP		7/21-Oct-25	29-Oct-25									
UTIL-12250	Util Relo - LAWA Box Culvert - Line A1 - Lateral - Install Catch Basin		3/30-Oct-25	03-Nov-25									
UTIL-12260	Util Relo - LAWA Box Culvert - Line A1 - Lateral - Restore Jacking Pit		2/04-Nov-25	05-Nov-25									
UTIL-12270	Util Relo - LAWA Box Culvert - Line A1 - Lateral - Restore Receiving Pit		2/06-Nov-25	07-Nov-25									
Const | St 1 | Cen Access | LAWA Box Culvert So of Century - Line B RCP - East Tie In to Box Culvert			13/11-Apr-26	May-26									
UTIL-11920	Util Relo - LAWA Box Culvert - Line B - Exc & Shore for East Tie In		3/15-Apr-26	17-Apr-26									
UTIL-11930	Util Relo - LAWA Box Culvert - Line B - Sawcut & Remove Existing Box East		1/20-Apr-26	20-Apr-26									
UTIL-11940	Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF Remaining B Sta 1+50 to Sta 2+80 RCP @ East Tie In		2/21-Apr-26	22-Apr-26									
UTIL-11950	Util Relo - LAWA Box Culvert - Line B - FRP Transition Structure @ East Tie In		4/23-Apr-26	28-Apr-26									
UTIL-11960	Util Relo - LAWA Box Culvert - Line B - Backfill & Remove SOE @ East Tie In		3/29-Apr-26	01-May-26									
Const | St 1 | Cen Access | Seg J			105/29-Oct-25	10-Apr-26	313		4						
Const | St 1 | Cen Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Wall J-2			100/29-Oct-25	03-Apr-26	318		-8						
Const | St 1 | Cen Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Wall J-2 | Footing A			28/29-Oct-25	12-Dec-25	8		0						
CON-15860	S1 - Wall J-2 - Fig A - Prep Work Pad for CIDH		2/29-Oct-25	30-Oct-25	4		14						
CON-15870	S1 - Wall J-2 - Fig A - Install CIDH Shafts Upper Level		2/31-Oct-25	03-Nov-25	4		4						
CON-15870	S1 - Wall J-2 - Fig A - Excavate for Lower Level Fig		3/04-Nov-25	06-Nov-25	4		10						
CON-15880	S1 - Wall J-2 - Fig A - Install CIDH Shafts Lower Level		9/07-Nov-25	20-Nov-25	9		2						
CON-15820	S1 - Wall J-2 - Fig A - Cure CIDH Shafts		7/21-Nov-25	27-Nov-25	19		-13						
CON-15920	S1 - Wall J-2 - Fig A - Sandblast CIDH		1/24-Nov-25	24-Nov-25	9		7						
CON-15830	S1 - Wall J-2 - Fig A - Fine Grade for Fig		3/25-Nov-25	02-Dec-25	9		-8						
CON-15890	S1 - Wall J-2 - Fig A - FRP Footing		6/03-Dec-25	11-Dec-25	9		-1						
CON-15930	S1 - Wall J-2 - Fig A - Backfill to Top of Fig		1/12-Dec-25	12-Dec-25	9		0						
Const | St 1 | Cen Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Wall J-2 | Footing B			28/31-Dec-25	11-Dec-25	5		-16						
CON-47031	S1 - Wall J-2 - Fig B - Prep Work Pad & Excavate		3/07-Nov-25	12-Nov-25	4								
CON-47041	S1 - Wall J-2 - Fig B - Install CIDH Shafts		14/13-Nov-25	06-Dec-25	4								
CON-47071	S1 - Wall J-2 - Fig B - Cure CIDH Shafts		7/06-Dec-25	12-Dec-25	10								
CON-47081	S1 - Wall J-2 - Fig B - Sandblast CIDH		1/09-Dec-25	09-Dec-25	6								
CON-15840	S1 - Wall J-2 - Fig B - Fine Grade for Fig		3/10-Dec-25	12-Dec-25	6		-14						
CON-15900	S1 - Wall J-2 - Fig B - FRP Footing		6/16-Dec-25	30-Dec-25	6		-15						
CON-47091	S1 - Wall J-2 - Fig B - Backfill to Top of Fig		1/31-Dec-25	31-Dec-25	5								
Const | St 1 | Cen Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Wall J-2 | Footing C			16/13-Nov-25	10-Dec-25	20		-2						
CON-15940	S1 - Wall J-2 - Fig C - Prep Work Pad, Install SOE & Excavate		5/13-Nov-25	18-Nov-25	20		-6						
CON-16000	S1 - Wall J-2 - Fig C - Perform Soil Correction		3/20-Nov-25	24-Nov-25	20		-9						
CON-15860	S1 - Wall J-2 - Fig C - Excavate Keyway & Fine Grade for Fig		2/25-Nov-25	26-Nov-25	20		-6						
CON-15910	S1 - Wall J-2 - Fig C - FRP Footing		5/02-Dec-25	09-Dec-25	20		-3						
CON-16060	S1 - Wall J-2 - Fig C - Backfill to Top of Fig		1/10-Dec-25	10-Dec-25	20		12						
Const St 1 Cen Access Seg J Ret Fill Sta 16+14 to Sta 21+35 Wall J-2 Section 1			5/16-Dec-25	05-Jan-26	10		-12						
CON-15850	S1 - Wall J-2 - FRP Panels Section 1		5/16-Dec-25	26-Dec-25	9		-11						

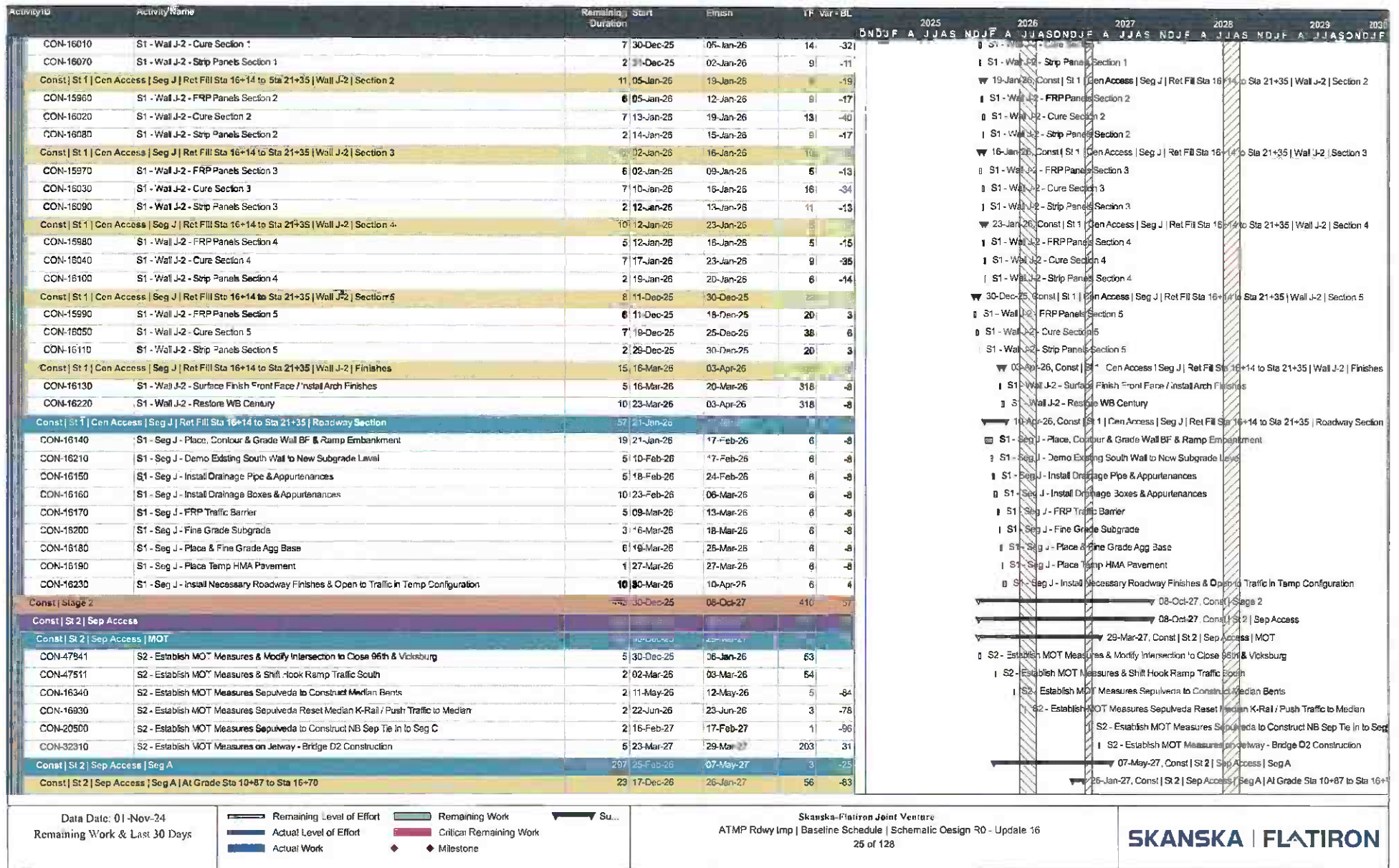
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Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
24 of 128

SKANSKA | FLATIRON



Activity to	Activity Name	Remaining Duration	Start	Finish	TF	var	2025	2026	2027	2028	2029	2030
	CON-16860 S2 - A-F1 - A-B3 - Cure Column Concrete		7 06-Jun-26	12-Jun-26	148	-108						
	CON-16870 S2 - A-F1 - A-B3 - Strip Column Forms 1 Day Minimum Removal		1 08-Jun-26	08-Jun-26	12	-77						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | F & S | Bent A-B4												
	CON-17010 S2 - A-F1 - A-B4 - Prep Work Pad For Type 2 Shaft		1 25-Feb-26	25-Feb-26	4	-20						
	CON-17130 S2 - A-F1 - A-B4 - Install CIDH Shaft(s)		4 04-Mar-26	06-Mar-26	0	-13						
	CON-17270 S2 - A-F1 - A-B4 - Cure Shaft		7 10-Mar-26	16-Mar-26	141	-19						
	CON-17280 S2 - A-F1 - A-B4 - Prep Transition Zone/Set Column Cage & Guy		4 10-Mar-26	13-Mar-26	100	-13						
	CON-17480 S2 - A-F1 - A-B4 - Place Transition Zone Concrete		1 17-Mar-26	17-Mar-26	99	-13						
	CON-17530 S2 - A-F1 - A-B4 - Cure Transition Zone Concrete		7 18-Mar-26	24-Mar-26	141	-19						
	CON-17540 S2 - A-F1 - A-B4 - Form Column		3 18-Mar-26	20-Mar-26	100	-13						
	CON-17620 S2 - A-F1 - A-B4 - Connect Thermal Control System		1 23-Mar-26	23-Mar-26	100	-13						
	CON-17790 S2 - A-F1 - A-B4 - Place Column Concrete		1 25-Mar-26	25-Mar-26	99	-13						
	CON-17850 S2 - A-F1 - A-B4 - Cure Column Concrete		7 26-Mar-26	01-Apr-26	218	-19						
	CON-17860 S2 - A-F1 - A-B4 - Strip Column Forms 1 Day Minimum Removal		1 26-Mar-26	26-Mar-26	99	-13						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | Sup												
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | Sup | FW												
	CON-18290 S2 - A-F1 - FW - Install Grillage/Bents/Bent Caps/Posts E Side Of Sepulveda		5 09-Jun-26	15-Jun-26	48	-23						
	CON-18550 S2 - A-F1 - FW - Install Transverse FW Beams Over NB Sepulveda & Median		2 15-Jun-26	17-Jun-26	53	-23						
	CON-18010 S2 - A-F1 - FW - Install Grillage/Bents/Bent Caps/Posts W Side Of Sepulveda		6 21-Aug-26	27-Aug-26	1	-80						
	CON-18280 S2 - A-F1 - FW - Install Transverse FW Beams Over SB Sepulveda & Median		2 28-Aug-26	31-Aug-26	1	-80						
	CON-41300 S2 - A-F1 - FW - Remove Falsework Over NB Sepulveda		2 29-Jan-27	01-Feb-27	1							
	CON-44060 S2 - A-F1 - FW - Remove Falsework Over SB Sepulveda		2 02-Feb-27	03-Feb-27	1							
	CON-45000 S2 - A-F1 - FW - Remove Falsework W Side of Sepulveda		5 04-Feb-27	10-Feb-27	1							
	CON-45010 S2 - A-F1 - FW - Remove Falsework E Side of Sepulveda		2 11-Feb-27	12-Feb-27	1							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | Sup | Soffit & Stms												
	CON-18670 S2 - A-F1 - S&S - Install Soffit & Safety Rail Span 3 Over NB Sepulveda		6 18-Jun-26	25-Jun-26	53	-26						
	CON-18880 S2 - A-F1 - S&S - Form Exterior Girder & OH Spans 1-2		7 26-Jun-26	07-Jul-26	53	-24						
	CON-18430 S2 - A-F1 - S&S - Install Soffit & Safety Rail Span 1-2 Over SB Sepulveda		6 01-Sep-26	11-Sep-26	1	-82						
	CON-18850 S2 - A-F1 - S&S - Form Exterior Girder & OH Span 3		5 14-Sep-26	18-Sep-26	1	-82						
	CON-19000 S2 - A-F1 - S&S - Place Soffit Rebar		6 21-Sep-26	28-Sep-26	1	-86						
	CON-19050 S2 - A-F1 - S&S - Place Stem Rebar		6 29-Sep-26	06-Oct-26	1	-90						
	CON-19100 S2 - A-F1 - S&S - Install PT Ducts		3 07-Oct-26	09-Oct-26	1	-90						
	CON-19180 S2 - A-F1 - S&S - Form Interior Girder & Walkways		11 12-Oct-26	26-Oct-26	1	-96						
	CON-19310 S2 - A-F1 - S&S - Form Diaphragms & Blockouts		7 27-Oct-26	04-Nov-26	1	-103						
	CON-19630 S2 - A-F1 - S&S - Place Soffit & Stem Concrete		2 05-Nov-26	08-Nov-26	1	-95						
	CON-19680 S2 - A-F1 - S&S - Cure Soffit & Stem Concrete		7 07-Nov-26	13-Nov-26	54	-135						
	CON-19670 S2 - A-F1 - S&S - Strip Interior Girder Forms & Walkways		5 09-Nov-26	16-Nov-26	1	-94						
	CON-19820 S2 - A-F1 - S&S - Strip Diaphragms		5 17-Nov-26	23-Nov-26	1	-97						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | Sup | Deck												
	CON-19910 S2 - A-F1 - Deck - Form Lost Deck		6 24-Nov-26	04-Dec-26	1	-97						
	CON-20010 S2 - A-F1 - Deck - Form EOD		9 08-Dec-26	18-Dec-26	1	-97						
	CON-20040 S2 - A-F1 - Deck - Install Screed Rails & Run-Offs		7 09-Dec-26	18-Dec-26	5	-97						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
 ATMP Rdwy Imp | Baseline Schedule | Schematic Design RD - Update 18
 29 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
CON-20110	S2 - A-F1 - Deck - Place Deck Rebar		7 17-Dec-26	04-Jan-27	1	-97							
CON-20130	S2 - A-F1 - Deck - Setup Bridge Finishing Machine & Work Bridges		1 28-Dec-26	28-Dec-26	5	-97							
CON-20180	S2 - A-F1 - Deck - Dry-run Bridge Finishing Machine		1 05-Jan-27	05-Jan-27	1	-97							
CON-20200	S2 - A-F1 - Deck - Place Bridge Deck Concrete		1 06-Jan-27	06-Jan-27	1	-97							
CON-20240	S2 - A-F1 - Deck - Cure Bridge Deck Concrete		7 07-Jan-27	13-Jan-27	1	-151							
CON-20250	S2 - A-F1 - Deck - Strip Screenshot Rails & EOD		3 14-Jan-27	18-Jan-27	1	-102							
CON-20260	S2 - A-F1 - Deck - Strip Ext Girder & CH Forms		5 18-Jan-27	25-Jan-27	1	-109							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F1 | Sup | PT				7-F		40							
CON-47981	S2 - A-F1 - PT - Install PT Strands		4 20-Jan-27	25-Jan-27	1								
CON-48001	S2 - A-F1 - PT - Stress & Lock-off		3 28-Jan-27	28-Jan-27	1								
CON-48011	S2 - A-F1 - PT - Grout PT Cuts		2 29-Jan-27	01-Feb-27	1								
CON-48021	S2 - A-F1 - PT - F/P/S PT Blockouts		3 02-Feb-27	04-Feb-27	1								
CON-48031	S2 - A-F1 - PT - Place Backwall Rebar A-A1		1 05-Feb-27	05-Feb-27	39								
CON-48041	S2 - A-F1 - PT - Form 2S Backwall A-A1		1 08-Feb-27	08-Feb-27	39								
CON-48051	S2 - A-F1 - PT - Place Backwall Concrete A-A1		1 09-Feb-27	09-Feb-27	39								
CON-48061	S2 - A-F1 - PT - Cure Backwall Concrete A-A1		7 10-Feb-27	16-Feb-27	56								
CON-48071	S2 - A-F1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal A-A1		1 17-Feb-27	17-Feb-27	40								
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2				10-Mar-27		3	-81						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S						19							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B5						13							
CON-20950	S2 - A-F2 - A-B5 - Prep Work Pad For Type 2 Shaft		1 27-Feb-26	27-Feb-26	14	-21							
CON-20960	S2 - A-F2 - A-B5 - Install CIDH Shaft(s)		4 20-Mar-26	25-Mar-26	0	-21							
CON-20970	S2 - A-F2 - A-B5 - Cure Shaft		7 26-Mar-26	01-Apr-26	32	-29							
CON-20980	S2 - A-F2 - A-B5 - Prep Transition Zone/Set Column Cage & Guy		4 28-Mar-26	31-Mar-26	44	-21							
CON-20990	S2 - A-F2 - A-B5 - Place Transition Zone Concrete		1 02-Apr-26	02-Apr-26	43	-21							
CON-21000	S2 - A-F2 - A-B5 - Cure Transition Zone Concrete		7 03-Apr-26	09-Apr-26	62	-29							
CON-21010	S2 - A-F2 - A-B5 - Form Column		3 03-Apr-26	07-Apr-26	44	-21							
CON-21020	S2 - A-F2 - A-B5 - Connect Thermal Control System		1 08-Apr-26	08-Apr-26	44	-21							
CON-21030	S2 - A-F2 - A-B5 - Place Column Concrete		1 10-Apr-26	10-Apr-26	43	-21							
CON-21040	S2 - A-F2 - A-B5 - Cure Column Concrete		7 11-Apr-26	17-Apr-26	62	-29							
CON-21050	S2 - A-F2 - A-B5 - Strip Column Forms 1 Day Minimum Removal		1 20-Apr-26	20-Apr-26	43	-21							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | F & S | Bent A-B6						39							
CON-21060	S2 - A-F2 - A-B6 - Prep Work Pad For Type 2 Shaft		1 02-Mar-26	02-Mar-26	17	-21							
CON-21070	S2 - A-F2 - A-B6 - Install CIDH Shaft(s)		4 28-Mar-26	31-Mar-26	0	-13							
CON-21080	S2 - A-F2 - A-B6 - Cure Shaft		7 01-Apr-26	07-Apr-26	56	-19							
CON-21090	S2 - A-F2 - A-B6 - Prep Transition Zone/Set Column Cage & Guy		4 01-Apr-26	08-Apr-26	40	-13							
CON-21100	S2 - A-F2 - A-B6 - Place Transition Zone Concrete		1 08-Apr-26	08-Apr-26	39	-13							
CON-21110	S2 - A-F2 - A-B6 - Cure Transition Zone Concrete		7 09-Apr-26	15-Apr-26	56	-19							
CON-21120	S2 - A-F2 - A-B6 - Form Column		3 09-Apr-26	13-Apr-26	40	-13							
CON-21130	S2 - A-F2 - A-B6 - Connect Thermal Control System		1 14-Apr-26	14-Apr-26	40	-13							
CON-21140	S2 - A-F2 - A-B6 - Place Column Concrete		1 16-Apr-26	16-Apr-26	39	-13							
CON-21150	S2 - A-F2 - A-B6 - Cure Column Concrete		7 17-Apr-26	23-Apr-26	58	-17							

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

■ Remaining Level of Effort
■ Actual Level of Effort
■ Actual Work
■ Remaining Work
■ Critical Remaining Work
◆ Milestone

Summary

Skanska-Flatorra Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
30 of 128

SKANSKA | FLATORRA

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	var	BL	2025	2026	2027	2028	2029	2030
CON-21520	S2-A-F2-A-B8R - Cure Shaft	7	29-Apr-26	05-May-26	28	-25		18-Mar-27, Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | Sup					
CON-21530	S2-A-F2-A-B8R - Prep Transition Zone/Set Column Cage & Guy	4	29-Apr-26	04-May-26	20	-17			18-Mar-27, Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | Sup | FW				
CON-21540	S2-A-F2-A-B8R - Place Transition Zone Concrete	1	06-May-26	06-May-26	19	-17							
CON-21550	S2-A-F2-A-B8R - Cure Transition Zone Concrete	7	07-May-26	13-May-26	26	-23							
CON-21560	S2-A-F2-A-B8R - Form Column	3	07-May-26	11-May-26	20	-17							
CON-21570	S2-A-F2-A-B8R - Connect Thermal Control System	1	12-May-26	12-May-26	20	-17							
CON-21580	S2-A-F2-A-B8R - Place Column Concrete	1	14-May-26	14-May-26	19	-17							
CON-21590	S2-A-F2-A-B8R - Cure Column Concrete	7	15-May-26	21-May-26	26	-23							
CON-21600	S2-A-F2-A-B8R - Strip Column Forms 1 Day Minimum Removal	1	22-May-26	22-May-26	18	-17							
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | Sup													
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | Sup | FW													
CON-18690	S2-A-F2-FW - Install Grillage/Bents/Bent Caps/Posts	3	26-May-26	26-May-26	19	-17							
CON-46400	S2-A-F2-FW - Remove Falsework	3	16-Mar-27	18-Mar-27	3								
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | Sup | Sofft & Stms													
CON-24250	S2-A-F2-S&S - Install Soffit & Safety Rail	14	29-May-26	17-Jun-26	19	-17							
CON-24300	S2-A-F2-S&S - Form Exterior Girder & OH	17	18-Jun-26	13-Jul-26	19	-14							
CON-24310	S2-A-F2-S&S - Place Soffit Rebar	8	14-Jul-26	23-Jul-26	19	-13							
CON-24320	S2-A-F2-S&S - Place Stem Rebar	8	24-Jul-26	04-Aug-26	19	-12							
CON-24330	S2-A-F2-S&S - Install PT Ducts	3	05-Aug-26	07-Aug-26	19	-12							
CON-24340	S2-A-F2-S&S - Form Interior Girder & Walkways	18	10-Aug-26	02-Sep-26	19	-3							
CON-24350	S2-A-F2-S&S - Form Diaphragms & Blockouts	10	03-Sep-26	17-Sep-26	19	-16							
CON-24260	S2-A-F2-S&S - Place Soffit & Stem Concrete	2	18-Sep-26	21-Sep-26	19	-16							
CON-24270	S2-A-F2-S&S - Cure Soffit & Stem Concrete	7	22-Sep-26	28-Sep-26	42	-25							
CON-24280	S2-A-F2-S&S - Strip Interior Girder Forms & Walkways	9	22-Sep-26	02-Oct-26	19	-15							
CON-24290	S2-A-F2-S&S - Strip Diaphragms	7	05-Oct-26	13-Oct-26	19	-20							
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | Sup | Deck													
CON-24360	S2-A-F2-DECK - Form Lost Deck	10	14-Oct-26	27-Oct-26	19	-19							
CON-24380	S2-A-F2-DECK - Form EOD	8	26-Oct-26	06-Nov-26	19	-19							
CON-24390	S2-A-F2-DECK - Install Soffit Rals & Run-Offs	5	29-Oct-26	05-Nov-26	28	-19							
CON-24400	S2-A-F2-DECK - Set-up Bridge Finishing Machine & Work Bridges	1	06-Nov-26	06-Nov-26	28	-19							
CON-24370	S2-A-F2-DECK - Place Deck Rebar	9	09-Nov-26	20-Nov-26	19	-19							
CON-24430	S2-A-F2-DECK - Dry-run Bridge Finishing Machine	1	23-Nov-26	23-Nov-26	19	-19							
CON-24410	S2-A-F2-DECK - Place Bridge Deck Concrete	1	24-Nov-26	24-Nov-26	19	-19							
CON-24420	S2-A-F2-DECK - Cure Bridge Deck Concrete	7	25-Nov-26	01-Dec-26	55	-25							
CON-24440	S2-A-F2-DECK - Strip Soffit Rals & EOD	5	25-Nov-26	04-Dec-26	19	-19							
CON-48121	S2-A-F2-DECK - Strip Ext Girder & OH Forms	9	08-Dec-26	28-Dec-26	19								
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F2 | Sup | PT													
CON-48081	S2-A-F2-PT - Install PT Strands	4	18-Dec-26	28-Dec-26	19								
CON-48091	S2-A-F2-PT - Stress & Lock-off	3	29-Dec-26	31-Dec-26	19								
CON-48101	S2-A-F2-PT - Grout PT Ducts	2	04-Jan-27	05-Jan-27	19								
CON-48111	S2-A-F2-PT - F/P/S PT Blockouts	3	05-Jan-27	08-Jan-27	19								
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F3													

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
 ATMP Rdwy Imn; Baseline Schedule | Schematic Design R0 - Update 16
 32 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	FT	Var	BL	2025	2026	2027	2028	2029	2030
	Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F3 | F & S							10NDJF	A JJA S NDJF	A JJA SONDJF	A JJA S NDJF	A JJA S NDJF	A JJA SONDJF
	Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F3 | F & S | Bent A-B9												
CON-22270	S2 - A-F3 - A-B9 - Prep Work Pad For Type 2 Shaft	1	09-Mar-26	09-Mar-26	36	24							
CON-22280	S2 - A-F3 - A-B9 - Install CIDH Shaft(s)	4	29-Apr-26	04-May-26	0	-6							
CON-22290	S2 - A-F3 - A-B9 - Cure Shaft	7	05-May-26	11-May-26	84	-13							
CON-22300	S2 - A-F3 - A-B9 - Prep Transition Zone/Set Column Cage & Guy	4	05-May-26	06-May-26	59	-6							
CON-22310	S2 - A-F3 - A-B9 - Place Transition Zone Concrete	1	12-May-26	12-May-26	58	-9							
CON-22320	S2 - A-F3 - A-B9 - Cure Transition Zone Concrete	7	13-May-26	19-May-26	84	-13							
CON-22330	S2 - A-F3 - A-B9 - Form Column	3	13-May-26	15-May-26	58	-6							
CON-22340	S2 - A-F3 - A-B9 - Connect Thermal Control System	1	18-May-26	18-May-26	59	-8							
CON-22350	S2 - A-F3 - A-B9 - Place Column Concrete	1	20-May-26	20-May-26	58	-6							
CON-22360	S2 - A-F3 - A-B9 - Cure Column Concrete	7	21-May-26	27-May-26	84	-13							
CON-22370	S2 - A-F3 - A-B9 - Strip Column Forms 1 Day Minimum Removal	1	28-May-26	28-May-26	59	-8							
	Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F3 | F & S | Bent A-B10												
	Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F3 | F & S | Bent A-B10L												
CON-22490	S2 - A-F3 - A-B10L - Prep Work Pad For Type 2 Shaft	1	10-Mar-26	10-Mar-26	39	-17							
CON-22500	S2 - A-F3 - A-B10L - Install CIDH Shaft(s)	4	06-May-26	08-May-26	0	-5							
CON-22510	S2 - A-F3 - A-B10L - Cure Shaft	7	09-May-26	15-May-26	6	-7							
CON-22520	S2 - A-F3 - A-B10L - Prep Transition Zone/Set Column Cage & Guy	4	11-May-26	14-May-26	5	-5							
CON-22530	S2 - A-F3 - A-B10L - Place Transition Zone Concrete	1	18-May-26	18-May-26	4	-5							
CON-22540	S2 - A-F3 - A-B10L - Cure Transition Zone Concrete	7	19-May-26	25-May-26	6	-7							
CON-22550	S2 - A-F3 - A-B10L - Form Column	3	19-May-26	21-May-26	4	-5							
CON-22560	S2 - A-F3 - A-B10L - Connect Thermal Control System	1	22-May-26	22-May-26	4	-5							
CON-22570	S2 - A-F3 - A-B10L - Place Column Concrete	1	26-May-26	26-May-26	4	-4							
CON-22580	S2 - A-F3 - A-B10L - Cure Column Concrete	7	27-May-26	02-Jun-26	6	-7							
CON-22590	S2 - A-F3 - A-B10L - Strip Column Forms 1 Day Minimum Removal	1	03-Jun-26	03-Jun-26	4	-5							
	Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F3 | F & S | Bent A-B10R												
CON-22600	S2 - A-F3 - A-B10R - Prep Work Pad For Type 2 Shaft	1	11-Mar-26	11-Mar-26	42	34							
CON-22610	S2 - A-F3 - A-B10R - Install CIDH Shaft(s)	4	11-May-26	14-May-26	0	-5							
CON-22620	S2 - A-F3 - A-B10R - Cure Shaft	7	15-May-26	21-May-26	0	-7							
CON-22630	S2 - A-F3 - A-B10R - Prep Transition Zone/Set Column Cage & Guy	4	15-May-26	20-May-26	1	-5							
CON-22640	S2 - A-F3 - A-B10R - Place Transition Zone Concrete	1	22-May-26	22-May-26	0	-5							
CON-22650	S2 - A-F3 - A-B10R - Cure Transition Zone Concrete	7	23-May-26	29-May-26	2	-7							
CON-22660	S2 - A-F3 - A-B10R - Form Column	3	26-May-26	28-May-26	0	-5							
CON-22670	S2 - A-F3 - A-B10R - Connect Thermal Control System	1	29-May-26	29-May-26	0	-6							
CON-22680	S2 - A-F3 - A-B10R - Place Column Concrete	1	01-Jun-26	01-Jun-26	0	-4							
CON-22690	S2 - A-F3 - A-B10R - Cure Column Concrete	7	02-Jun-26	08-Jun-26	0	-6							
CON-22700	S2 - A-F3 - A-B10R - Strip Column Forms 1 Day Minimum Removal	1	09-Jun-26	09-Jun-26	0	-4							
	Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F3 | F & S | Bent A-B10 Cap												
CON-17530	S2 - A-F3 - A-B10 CAP - Erect FW Outrigger Bent Cap	2	10-Jun-26	11-Jun-26	0	-4							
CON-17730	S2 - A-F3 - A-B10 CAP - Install Outrigger Bent Cap Soffit & Safety Rail	4	12-Jun-26	17-Jun-26	0	-4							
CON-17980	S2 - A-F3 - A-B10 CAP - Form Outrigger Bent Cap 1S	5	16-Jun-26	24-Jun-26	0	-4							

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

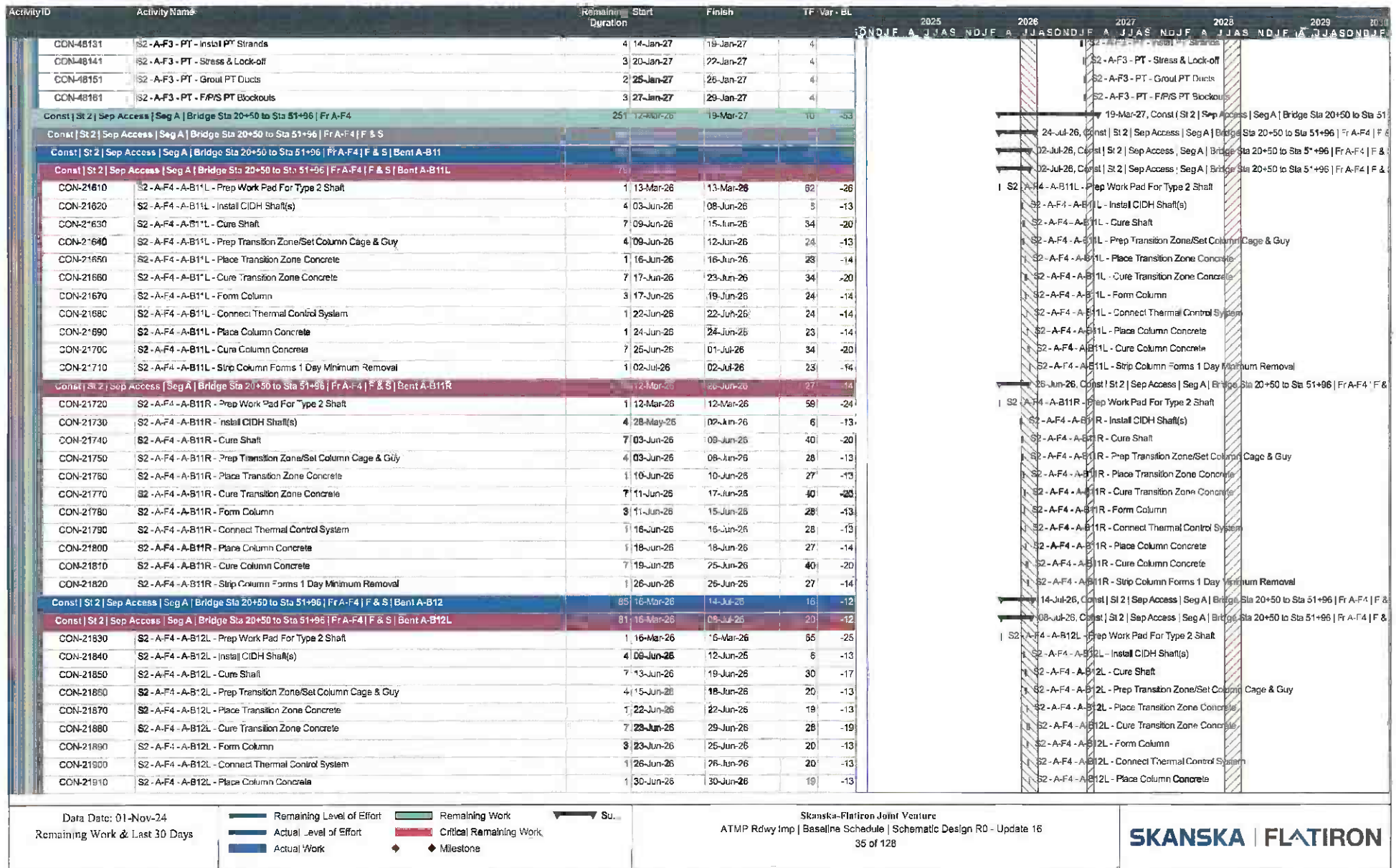
Remaining Level of Effort
 Actual Level of Effort
 Actual Work
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 Milestone

Summary

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
33 of 128

SKANSKA | FLATIRON

SKANSKA | FLATIRON



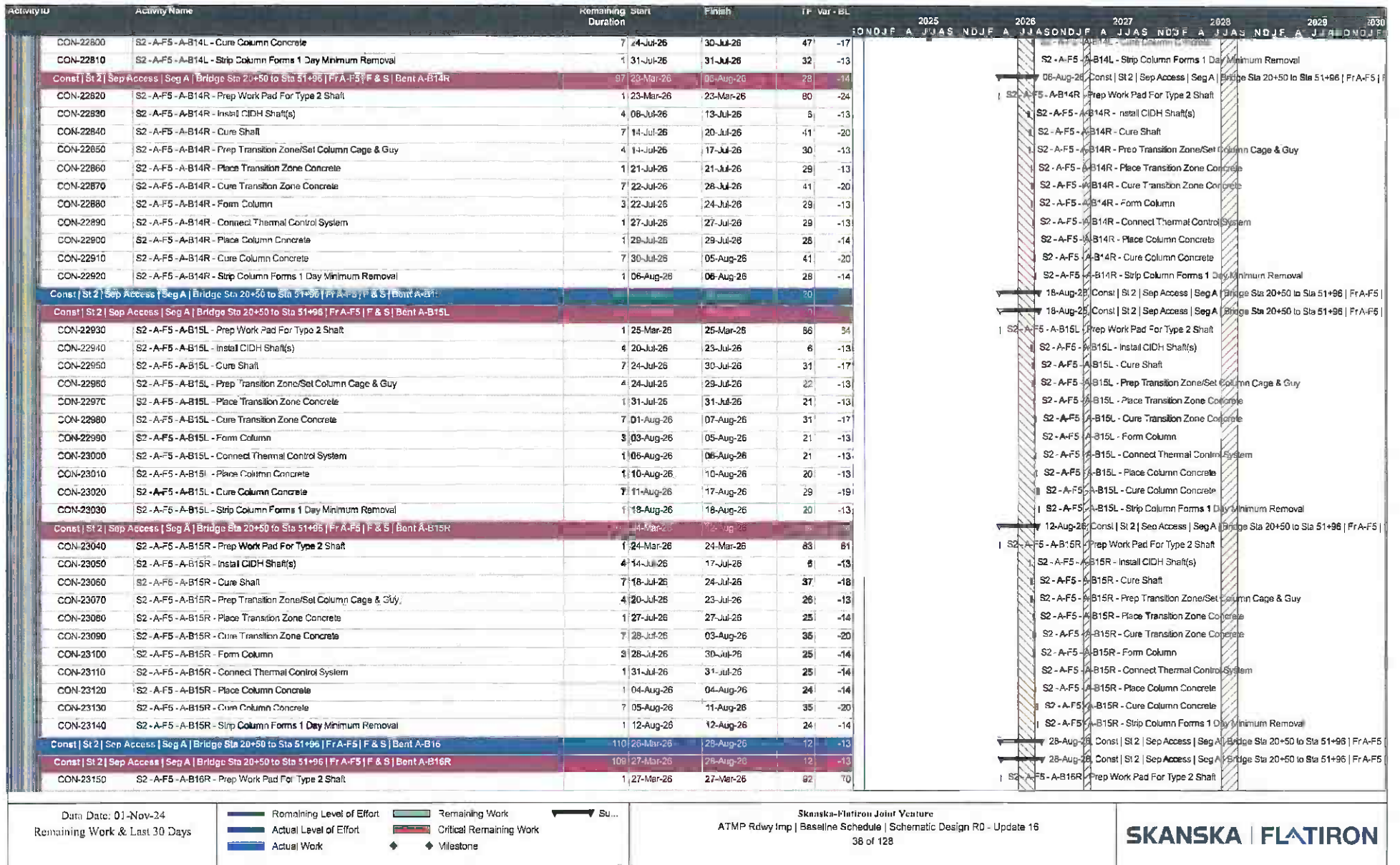
Activity ID	Activity Name	Remaining Duration	Start	Finish	EF	var	BL	2025	2026	2027	2028	2029	2030
CON-21920	S2 - A-F4 - A-B12L - Cure Column Concrete	7	01-Jul-26	07-Jul-26	28	-19							
CON-21930	S2 - A-F4 - A-B12L - Strip Column Forms 1 Day Minimum Removal	1	08-Jul-26	08-Jul-26	20	12							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | F & S | Bent A-B12R													
CON-21940	S2 - A-F4 - A-B12R - Prep Work Pad For Type 2 Shaft	1	17-Mar-26	17-Mar-26	68	-25							
CON-21950	S2 - A-F4 - A-B12R - Install CIDH Shaft(s)	4	15-Jun-26	18-Jun-26	8	-13							
CON-21960	S2 - A-F4 - A-B12R - Cure Shaft	7	19-Jun-26	25-Jun-26	24	-17							
CON-21970	S2 - A-F4 - A-B12R - Prep Transition Zone/Set Column Cage & Guy	4	19-Jun-26	24-Jun-26	16	-13							
CON-21980	S2 - A-F4 - A-B12R - Place Transition Zone Concrete	1	26-Jun-26	26-Jun-26	15	-13							
CON-21990	S2 - A-F4 - A-B12R - Cure Transition Zone Concrete	7	27-Jun-26	03-Jul-26	24	-17							
CON-22000	S2 - A-F4 - A-B12R - Form Column	3	29-Jun-26	01-Jul-26	16	-13							
CON-22010	S2 - A-F4 - A-B12R - Connect Thermal Control System	1	02-Jul-26	02-Jul-26	18	-13							
CON-22020	S2 - A-F4 - A-B12R - Place Column Concrete	1	06-Jul-26	06-Jul-26	16	-12							
CON-22030	S2 - A-F4 - A-B12R - Cure Column Concrete	7	07-Jul-26	13-Jul-26	22	-19							
CON-22040	S2 - A-F4 - A-B12R - Strip Column Forms 1 Day Minimum Removal	1	14-Jul-26	14-Jul-26	16	-12							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | F & S | Bent A-B13													
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | F & S | Bent A-B13L													
CON-22050	S2 - A-F4 - A-B13L - Prep Work Pad For Type 2 Shaft	1	19-Mar-26	19-Mar-26	74	-28							
CON-22060	S2 - A-F4 - A-B13L - Install CIDH Shaft(s)	4	25-Jun-26	30-Jun-26	6	-13							
CON-22070	S2 - A-F4 - A-B13L - Cure Shaft	7	01-Jul-26	07-Jul-26	12	-19							
CON-22080	S2 - A-F4 - A-B13L - Prep Transition Zone/Set Column Cage & Guy	4	01-Jul-26	07-Jul-26	8	-13							
CON-22090	S2 - A-F4 - A-B13L - Place Transition Zone Concrete	1	08-Jul-26	08-Jul-26	8	-12							
CON-22100	S2 - A-F4 - A-B13L - Cure Transition Zone Concrete	7	09-Jul-26	15-Jul-26	12	-19							
CON-22110	S2 - A-F4 - A-B13L - Form Column	3	09-Jul-26	13-Jul-26	9	-12							
CON-22120	S2 - A-F4 - A-B13L - Connect Thermal Control System	1	14-Jul-26	14-Jul-26	9	-12							
CON-22130	S2 - A-F4 - A-B13L - Place Column Concrete	1	16-Jul-26	16-Jul-26	6	-12							
CON-22140	S2 - A-F4 - A-B13L - Cure Column Concrete	7	17-Jul-26	23-Jul-26	12	-17							
CON-22150	S2 - A-F4 - A-B13L - Strip Column Forms 1 Day Minimum Removal	1	24-Jul-26	24-Jul-26	8	-13							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | F & S | Bent A-B13R													
CON-22160	S2 - A-F4 - A-B13R - Prep Work Pad For Type 2 Shaft	1	18-Mar-26	18-Mar-26	71	-24							
CON-22170	S2 - A-F4 - A-B13R - Install CIDH Shaft(s)	4	19-Jun-26	24-Jun-26	6	-13							
CON-22180	S2 - A-F4 - A-B13R - Cure Shaft	7	25-Jun-26	01-Jul-26	18	-19							
CON-22190	S2 - A-F4 - A-B13R - Prep Transition Zone/Set Column Cage & Guy	4	25-Jun-26	30-Jun-26	12	-13							
CON-22200	S2 - A-F4 - A-B13R - Place Transition Zone Concrete	1	02-Jul-26	02-Jul-26	11	-13							
CON-22210	S2 - A-F4 - A-B13R - Cure Transition Zone Concrete	7	03-Jul-26	09-Jul-26	8	-17							
CON-22220	S2 - A-F4 - A-B13R - Form Column	3	06-Jul-26	09-Jul-26	12	-13							
CON-22230	S2 - A-F4 - A-B13R - Connect Thermal Control System	1	09-Jul-26	09-Jul-26	12	-13							
CON-22240	S2 - A-F4 - A-B13R - Place Column Concrete	1	10-Jul-26	10-Jul-26	12	-12							
CON-22250	S2 - A-F4 - A-B13R - Cure Column Concrete	7	11-Jul-26	17-Jul-26	18	-17							
CON-22260	S2 - A-F4 - A-B13R - Strip Column Forms 1 Day Minimum Removal	1	20-Jul-26	20-Jul-26	12	-12							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | Sup													
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F4 | Sup | FW													
CON-24940	S2 - A-F4 - FW - Install Grillage/Bents/Bent Caps/Posts/Stringers	5	27-Jul-26	31-Jul-26	8	-13							

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
ATMP Rawy Imp | Baseline Schedule | Schematic Design R0 - Update 16.
36 of 128

SKANSKA | FLATIRON



Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Val	BL	2025	2026	2027	2028	2029	000
CON-23180	S2 - A-F5 - A-B16R - Install CIDH Shaft(s)		4 30-Jul-26	04-Aug-26	6	-13		2025	2026	2027	2028	2029	000
CON-23170	S2 - A-F5 - A-B16R - Cure Shaft		7 05-Aug-26	11-Aug-26	19	-19							
CON-23180	S2 - A-F5 - A-B16R - Prep Transition Zone/Set Column Cage & Guy		4 05-Aug-26	10-Aug-26	14	-13							
CON-23190	S2 - A-F5 - A-B16R - Place Transition Zone Concrete		1 12-Aug-26	12-Aug-26	13	-13							
CON-23200	S2 - A-F5 - A-B16R - Cure Transition Zone Concrete		7 13-Aug-26	19-Aug-26	19	-19							
CON-23210	S2 - A-F5 - A-B16R - Form Column		3 13-Aug-26	17-Aug-26	13	-13							
CON-23220	S2 - A-F5 - A-B16R - Connect Thermal Control System		1 18-Aug-26	18-Aug-26	13	-13							
CON-23230	S2 - A-F5 - A-B16R - Place Column Concrete		1 20-Aug-26	20-Aug-26	12	-13							
CON-23240	S2 - A-F5 - A-B16R - Cure Column Concrete		7 21-Aug-26	27-Aug-26	19	-17							
CON-23250	S2 - A-F5 - A-B16R - Strip Column Forms 1 Day Minimum Removal		1 28-Aug-26	28-Aug-26	12	-13							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F5 | F & S | Bent A-B16L		100		24-Aug-26	16	-13							
CON-23260	S2 - A-F5 - A-B16L - Prep Work Pad For Type 2 Shaft		1 26-Mar-26	26-Mar-26	89	67							
CON-23270	S2 - A-F5 - A-B16L - Install CIDH Shaft(s)		4 24-Jul-26	29-Jul-26	6	-13							
CON-23280	S2 - A-F5 - A-B16L - Cure Shaft		7 30-Jul-26	05-Aug-26	26	-19							
CON-23290	S2 - A-F5 - A-B16L - Prep Transition Zone/Set Column Cage & Guy		4 30-Jul-26	04-Aug-26	18	-13							
CON-23300	S2 - A-F5 - A-B16L - Place Transition Zone Concrete		1 06-Aug-26	06-Aug-26	17	13							
CON-23310	S2 - A-F5 - A-B16L - Cure Transition Zone Concrete		7 07-Aug-26	13-Aug-26	25	-17							
CON-23320	S2 - A-F5 - A-B16L - Form Column		3 07-Aug-26	11-Aug-26	17	-13							
CON-23330	S2 - A-F5 - A-B16L - Connect Thermal Control System		1 12-Aug-26	12-Aug-26	17	-13							
CON-23340	S2 - A-F5 - A-B16L - Place Column Concrete		1 14-Aug-26	14-Aug-26	18	-13							
CON-23350	S2 - A-F5 - A-B16L - Cure Column Concrete		7 15-Aug-26	21-Aug-26	25	-17							
CON-23360	S2 - A-F5 - A-B16L - Strip Column Forms 1 Day Minimum Removal		1 24-Aug-26	24-Aug-26	16	-13							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F5 | Sup					4	-10							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F5 | Sup | FW						45							
CON-24850	S2 - A-F5 - FW - Install Grillage/Bents/Bent Caps/Posts		5 31-Aug-26	04-Sep-26	12	-13							
CON-48211	S2 - A-F5 - FW - Remove Falsework		5 23-Mar-27	29-Mar-27	4								
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F5 | Sup | Soffit & Stem			08-Sep-26	03-Dec-26	12	0							
CON-24960	S2 - A-F5 - S&S - Install Soffit & Safety Rail		12 08-Sep-26	23-Sep-26	12	-13							
CON-25010	S2 - A-F5 - S&S - Form Exterior Girder & OH		10 17-Sep-26	30-Sep-26	12	-4							
CON-25020	S2 - A-F5 - S&S - Place Soffit Rebar		7 01-Oct-26	09-Oct-26	12	-4							
CON-25030	S2 - A-F5 - S&S - Place Stem Rebar		5 12-Oct-26	16-Oct-26	12	-2							
CON-25040	S2 - A-F5 - S&S - Install PT Ducts		3 19-Oct-26	21-Oct-26	12	-2							
CON-25050	S2 - A-F5 - S&S - Form Interior Girder & Walkways		16 22-Oct-26	12-Nov-26	12	0							
CON-25060	S2 - A-F5 - S&S - Form Diaphragms & Blockouts		6 06-Nov-26	16-Nov-26	12	3							
CON-24970	S2 - A-F5 - S&S - Place Soffit & Stem Concrete		2 17-Nov-26	18-Nov-26	12	3							
CON-24980	S2 - A-F5 - S&S - Cure Soffit & Stem Concrete		7 19-Nov-26	25-Nov-26	36	0							
CON-24990	S2 - A-F5 - S&S - Strip Interior Girder Forms & Walkways		5 19-Nov-26	25-Nov-26	12	2							
CON-25000	S2 - A-F5 - S&S - Strip Diaphragms		3 01-Dec-26	03-Dec-26	12	0							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F5 | Sup | Deck						12	-13						
CON-25070	S2 - A-F5 - DECK - Form Lost Deck		9 04-Dec-26	18-Dec-26	12	1							
CON-25090	S2 - A-F5 - DECK - Form EOD		6 28-Dec-26	04-Jan-27	12	2							
CON-25100	S2 - A-F5 - DECK - Install Screed Rails & Run-Offs		7 29-Dec-26	07-Jan-27	16	1							

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
Actual Level of Effort
Actual Work

Remaining Work
Critical Remaining Work
Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
39 of 126

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TP Var	BL	2025	2026	2027	2028	2029	2030
							JUN	JUL	AUG	SEP	OCT	NOV
CON-25080	S2 - A-F5 - DECK - Place Deck Rebar	7	05-Jan-27	13-Jan-27	12	2						
CON-25110	S2 - A-F5 - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	08-Jan-27	08-Jan-27	15	1						
CON-25140	S2 - A-F5 - DECK - Dry-run Bridge Finishing Machine	1	14-Jan-27	14-Jan-27	12	2						
CON-25120	S2 - A-F5 - DECK - Place Bridge Deck Concrete	1	15-Jan-27	15-Jan-27	12	2						
CON-25130	S2 - A-F5 - DECK - Cure Bridge Deck Concrete	7	18-Jan-27	22-Jan-27	18	7						
CON-25150	S2 - A-F5 - DECK - Strip Screed Rails & EOD	3	25-Jan-27	27-Jan-27	12	-3						
CON-48221	S2 - A-F5 - DECK - Strip Ext Girder & OH	6	27-Jan-27	03-Feb-27	12							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F5 | Sup | PT		12	29-Jan-27	16-Feb-27	2							
CON-4817*	S2 - A-F5 - PT - Install PT Strands	4	29-Jan-27	03-Feb-27	12							
CON-4818*	S2 - A-F5 - PT - Stress & Lock-off	3	04-Feb-27	08-Feb-27	12							
CON-4819*	S2 - A-F5 - PT - Grout PT Ducts	2	09-Feb-27	10-Feb-27	12							
CON-4820*	S2 - A-F5 - PT - F/P/S PT Blockouts	3	11-Feb-27	16-Feb-27	12							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6		273	25-Feb-26	05-Apr-27	0	-59						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6a		268	25-Feb-26	29-Mar-27	5	-57						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6a | F & S		135	25-Feb-26	03-Sep-26	5	-13						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6a | F & S | Bent A-B17		112	30-Mar-26	23-Sep-26	5	-13						
CON-23370	S2 - A-F6a - A-B17 - Prep Work Pad For Type 2 Shaft	1	30-Mar-26	30-Mar-26	95	73						
CON-23380	S2 - A-F6a - A-B17 - Install CIDH Shaft(s)	4	05-Aug-26	10-Aug-26	6	-13						
CON-23390	S2 - A-F6a - A-B17 - Cure Shaft	7	11-Aug-26	17-Aug-26	8	-19						
CON-23400	S2 - A-F6a - A-B17 - Prep Transition Zone/Set Column Cage & Guy	4	11-Aug-26	14-Aug-26	7	-13						
CON-23410	S2 - A-F6a - A-B17 - Place Transition Zone Concrete	1	18-Aug-26	18-Aug-26	6	-13						
CON-23420	S2 - A-F6a - A-B17 - Cure Transition Zone Concrete	7	18-Aug-26	25-Aug-26	8	-19						
CON-23430	S2 - A-F6a - A-B17 - Form Column	3	19-Aug-26	21-Aug-26	7	-13						
CON-23440	S2 - A-F6a - A-B17 - Connect Thermal Control System	1	24-Aug-26	24-Aug-26	7	-19						
CON-23450	S2 - A-F6a - A-B17 - Place Column Concrete	1	26-Aug-26	26-Aug-26	6	-13						
CON-23460	S2 - A-F6a - A-B17 - Cure Column Concrete	7	27-Aug-26	02-Sep-26	8	-19						
CON-23470	S2 - A-F6a - A-B17 - Strip Column Forms 1 Day Minimum Removal	1	03-Sep-26	03-Sep-26	5	-13						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6a | F & S | Bent A-B18						-20						
CON-23480	S2 - A-F6a - A-B18 - Prep Work Pad For Type 2 Shaft	1	25-Feb-26	25-Feb-26	4	-20						
CON-23490	S2 - A-F6a - A-B18 - Install CIDH Shaft(s)	4	04-Mar-26	09-Mar-26	0	-20						
CON-23500	S2 - A-F6a - A-B18 - Cure Shaft	7	10-Mar-26	16-Mar-26	162	-31						
CON-23510	S2 - A-F6a - A-B18 - Prep Transition Zone/Set Column Cage & Guy	4	10-Mar-26	13-Mar-26	115	-20						
CON-23520	S2 - A-F6a - A-B18 - Place Transition Zone Concrete	1	17-Mar-26	17-Mar-26	114	-20						
CON-23530	S2 - A-F6a - A-B18 - Cure Transition Zone Concrete	7	18-Mar-26	24-Mar-26	182	-28						
CON-23540	S2 - A-F6a - A-B18 - Form Column	3	18-Mar-26	20-Mar-26	115	-20						
CON-23550	S2 - A-F6a - A-B18 - Connect Thermal Control System	1	23-Mar-26	23-Mar-26	115	-20						
CON-23560	S2 - A-F6a - A-B18 - Place Column Concrete	1	25-Mar-26	25-Mar-26	114	-20						
CON-23570	S2 - A-F6a - A-B18 - Cure Column Concrete	7	26-Mar-26	01-Apr-26	162	-28						
CON-23580	S2 - A-F6a - A-B18 - Strip Column Forms 1 Day Minimum Removal	1	02-Apr-26	02-Apr-26	113	-20						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6a | Sup		133	04-Sep-26	29-Mar-27	0	-57						
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6a | Sup | FW		133	04-Sep-26	29-Mar-27	3	-141						
CON-25170	S2 - A-F6a - FW - Install Grillage/Bents/Bent Caps/Posts/Stringers	5	04-Sep-26	11-Sep-26	5	-13						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

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 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Platiron Joint Venture
 ATMP Rdwy Imp | Baseline Schedule | Schematic Design RD - Update 16
 40 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Start Duration	Finish	TF	var - BL	2025 2026 2027 2028 2029 2030											
						JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
CON-48231	S2 - A-F6a - FW - Remove Falsework	5	23-Mar-27	29-Mar-27	0												
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6a | Sup | Sofft & Stms																	
CON-25180	S2 - A-F6a - S&S - Install Sofft & Safety Rail	10	14-Sep-26	25-Sep-26	5												
CON-25180	S2 - A-F6a - S&S - Form Exterior Girder & OH	12	21-Sep-26	05-Oct-26	5												
CON-25210	S2 - A-F6a - S&S - Place Sofft Rebar	2	25-Sep-26	28-Sep-26	5												
CON-25220	S2 - A-F6a - S&S - Place Stem Rebar	5	28-Sep-26	05-Oct-26	5												
CON-25230	S2 - A-F6a - S&S - Install PT Ducts	4	02-Oct-26	07-Oct-26	5												
CON-25200	S2 - A-F6a - S&S - Form Interior Girder & Walkways	11	08-Oct-26	22-Oct-26	5												
CON-25270	S2 - A-F6a - S&S - Form Diaphragms & Blockouts	3	23-Oct-26	27-Oct-26	5												
CON-25240	S2 - A-F6a - S&S - Place Sofft & Stem Concrete	2	28-Oct-26	29-Oct-26	5												
CON-25250	S2 - A-F6a - S&S - Cure Sofft & Stem Concrete	7	30-Oct-26	05-Nov-26	12												
CON-25280	S2 - A-F6a - S&S - Strip Interior Girder Forms & Walkways	5	30-Oct-26	05-Nov-26	5												
CON-25280	S2 - A-F6a - S&S - Strip Diaphragms	2	06-Nov-26	09-Nov-26	5												
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6a | Sup | Deck																	
CON-25290	S2 - A-F6a - DECK - Form Last Deck	8	10-Nov-26	20-Nov-26	5												
CON-25310	S2 - A-F6a - DECK - Form EOD	5	23-Nov-26	02-Dec-26	5												
CON-25320	S2 - A-F6a - DECK - Install Scaff Rails & Run-Offs	8	24-Nov-26	04-Dec-26	8												
CON-25300	S2 - A-F6a - DECK - Place Deck Rebar	8	03-Dec-26	11-Dec-26	5												
CON-25330	S2 - A-F6a - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	08-Dec-26	08-Dec-26	5												
CON-25360	S2 - A-F6a - DECK - Dry-run Bridge Finishing Machine	1	16-Dec-26	15-Dec-26	5												
CON-25340	S2 - A-F6a - DECK - Place Bridge Deck Concrete	1	16-Dec-26	16-Dec-26	5												
CON-25350	S2 - A-F6a - DECK - Cure Bridge Deck Concrete	7	17-Dec-26	23-Dec-26	14												
CON-25370	S2 - A-F6a - DECK - Strip Scaff Rails & EOD	2	28-Dec-26	29-Dec-26	7												
CON-25380	S2 - A-F6a - DECK - Strip C/J Bulkheads	1	30-Dec-26	30-Dec-26	7												
CON-25420	S2 - A-F6a - DECK - Strip Exterior Girder & OH Forms	5	30-Dec-26	07-Jan-27	17												
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b																	
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | F & S																	
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | F & S | Bent A-B19																	
CON-23700	S2 - A-F6b - A-B19 - Prep Work Pad For Type 2 Shaft	1	26-Feb-26	26-Feb-26	7												
CON-23710	S2 - A-F6b - A-B19 - Install CIDH Shaft(s)	4	10-Mar-26	13-Mar-26	0												
CON-23720	S2 - A-F6b - A-B19 - Cure Shaft	7	14-Mar-26	20-Mar-26	129												
CON-23730	S2 - A-F6b - A-B19 - Prep Transition Zone/Set Column Cage & Guy	4	16-Mar-26	19-Mar-26	90												
CON-23740	S2 - A-F6b - A-B19 - Place Transition Zone Concrete	1	23-Mar-26	23-Mar-26	39												
CON-23750	S2 - A-F6b - A-B19 - Cure Transition Zone Concrete	7	24-Mar-26	30-Mar-26	127												
CON-23760	S2 - A-F6b - A-B19 - Form Column	3	24-Mar-26	26-Mar-26	90												
CON-23770	S2 - A-F6b - A-B19 - Connect Thermal Control System	1	27-Mar-26	27-Mar-26	90												
CON-23780	S2 - A-F6b - A-B19 - Place Column Concrete	1	31-Mar-26	31-Mar-26	89												
CON-23790	S2 - A-F6b - A-B19 - Cure Column Concrete	7	01-Apr-26	07-Apr-26	127												
CON-23800	S2 - A-F6b - A-B19 - Strip Column Forms 1 Day Minimum Removal	1	08-Apr-26	08-Apr-26	89												
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | Sup																	
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F6b | Sup | FW																	
CON-25440	S2 - A-F6b - FW - Install Grillage/Bents/Bent Caps/Posts/Stringers	5	09-Apr-26	15-Apr-26	89												

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

■ Remaining Level of Effort ■ Remaining Work
■ Actual Level of Effort ■ Critical Remaining Work
■ Actual Work ◆ Milestone

Skanska-Flarion Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
41 of 128

SKANSKA | FLARION

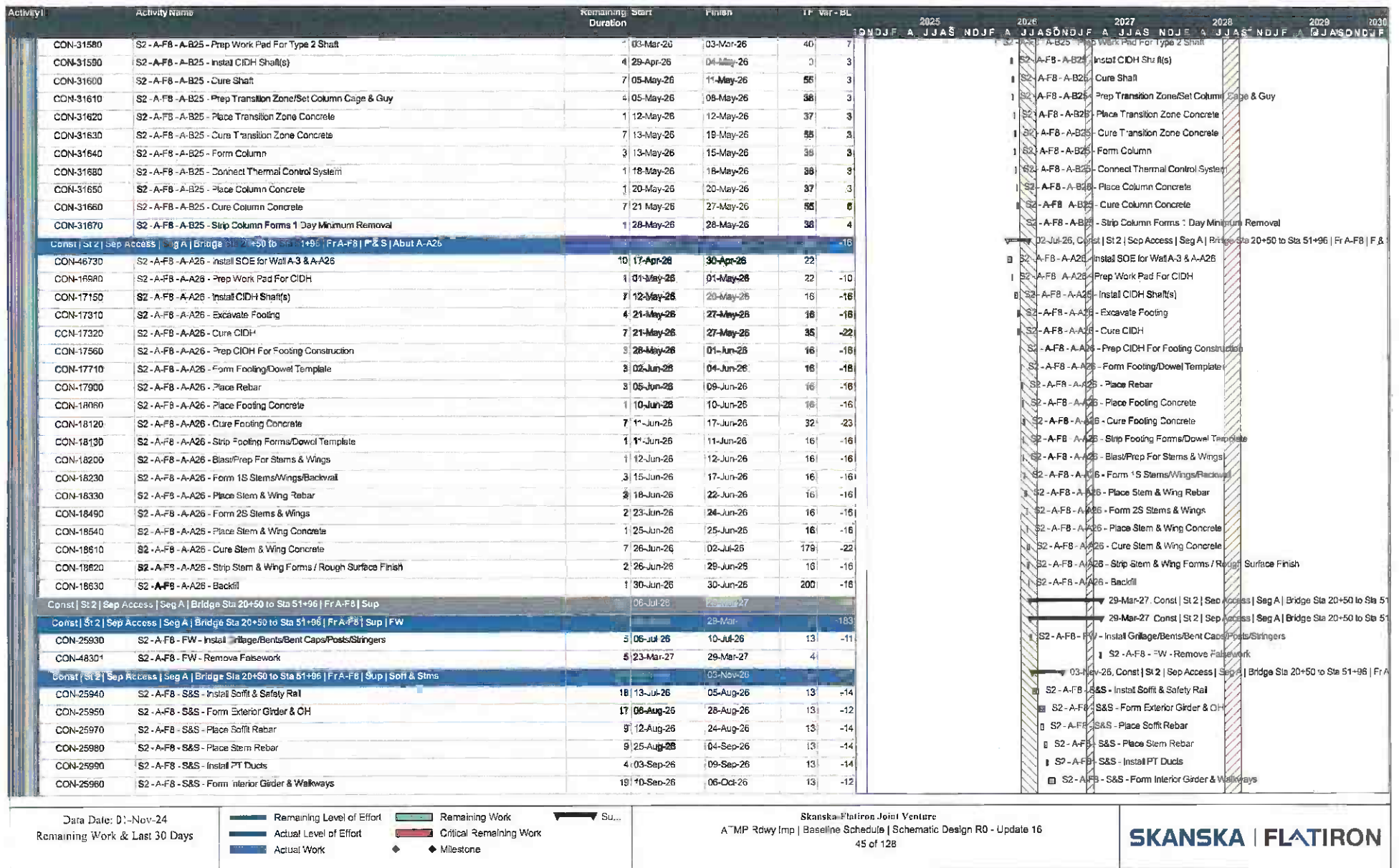
Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
CON-23910	S2 - A-F7 - A-B20 - Strip Column Forms 1 Day Minimum Removal	1	14-Apr-26	14-Apr-26	60	0		MON	TUE	WED	THU	FRI	SAT
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F7 | F & S | Bent A-B21													
CON-24030	S2 - A-F7 - A-B21 - Prep Work Pad For Type 2 Shaft	1	02-Mar-26	02-Mar-26	29	8							
CON-24040	S2 - A-F7 - A-B21 - Install CIDH Shaft(s)	4	13-Apr-26	18-Apr-26	3	0							
CON-24050	S2 - A-F7 - A-B21 - Cure Shaft	7	17-Apr-26	23-Apr-26	59	0							
CON-24060	S2 - A-F7 - A-B21 - Prep Transition Zone/Set Column Cage & Guy	4	17-Apr-26	22-Apr-26	41	0							
CON-24070	S2 - A-F7 - A-B21 - Place Transition Zone Concrete	1	24-Apr-26	24-Apr-26	40	0							
CON-24080	S2 - A-F7 - A-B21 - Cure Transition Zone Concrete	7	25-Apr-26	01-May-26	59	0							
CON-24090	S2 - A-F7 - A-B21 - Form Column	3	27-Apr-26	29-Apr-26	41	0							
CON-24100	S2 - A-F7 - A-B21 - Connect Thermal Control System	1	30-Apr-26	30-Apr-26	41	0							
CON-24110	S2 - A-F7 - A-B21 - Place Column Concrete	1	04-May-26	04-May-26	40	0							
CON-24120	S2 - A-F7 - A-B21 - Cure Column Concrete	7	05-May-26	11-May-26	57	0							
CON-24130	S2 - A-F7 - A-B21 - Strip Column Forms 1 Day Minimum Removal	1	12-May-26	12-May-26	36	0							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F7 | F & S | Bent A-B22													
CON-23920	S2 - A-F7 - A-B22 - Prep Work Pad For Type 2 Shaft	1	01-Jun-26	01-Jun-26	5	-27							
CON-23930	S2 - A-F7 - A-B22 - Install CIDH Shaft(s)	4	08-Jun-26	12-Jun-26	0	-10							
CON-23940	S2 - A-F7 - A-B22 - Cure Shaft	7	13-Jun-26	19-Jun-26	2	-14							
CON-23950	S2 - A-F7 - A-B22 - Prep Transition Zone/Set Column Cage & Guy	4	15-Jun-26	18-Jun-26	1	-10							
CON-23960	S2 - A-F7 - A-B22 - Place Transition Zone Concrete	1	22-Jun-26	22-Jun-26	0	-10							
CON-23970	S2 - A-F7 - A-B22 - Cure Transition Zone Concrete	7	23-Jun-26	29-Jun-26	0	-14							
CON-23980	S2 - A-F7 - A-B22 - Form Column	3	23-Jun-26	25-Jun-26	1	-10							
CON-23990	S2 - A-F7 - A-B22 - Connect Thermal Control System	1	26-Jun-26	26-Jun-26	1	-10							
CON-24000	S2 - A-F7 - A-B22 - Place Column Concrete	1	30-Jun-26	30-Jun-26	0	-10							
CON-24010	S2 - A-F7 - A-B22 - Cure Column Concrete	7	01-Jul-26	07-Jul-26	0	-14							
CON-24020	S2 - A-F7 - A-B22 - Strip Column Forms 1 Day Minimum Removal	1	08-Jul-26	08-Jul-26	0	-9							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F7 | Sup													
CON-25710	S2 - A-F7 - FW - Install Grillage/Bents/Bent Caps/Posts	5	09-Jul-26	15-Jul-26	0	-9							
CON-1829*	S2 - A-F7 - FW - Remove Falsework	5	23-Mar-27	29-Mar-27	5								
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F7 | Sup | Soft & Stms													
CON-25720	S2 - A-F7 - S&S - Install Soffit & Safety Rail	20	16-Jul-26	12-Aug-26	0	-14							
CON-25770	S2 - A-F7 - S&S - Form Exterior Girder & DH	19	31-Jul-26	26-Aug-26	0	-1							
CON-25780	S2 - A-F7 - S&S - Place Soffit Rebar	5	21-Aug-26	01-Sep-26	0	3							
CON-25790	S2 - A-F7 - S&S - Place Stem Rebar	5	27-Aug-26	08-Sep-26	0	7							
CON-25800	S2 - A-F7 - S&S - Install PT Ducts	3	09-Sep-26	11-Sep-26	0	7							
CON-25810	S2 - A-F7 - S&S - Form Interior Girder & Walkways	24	14-Sep-26	15-Oct-26	0	5							
CON-25820	S2 - A-F7 - S&S - Form Diaphragms & Blockouts	10	09-Oct-26	22-Oct-26	0	2							
CON-25730	S2 - A-F7 - S&S - Place Soffit & Stem Concrete	2	23-Oct-26	26-Oct-26	0	2							
CON-25740	S2 - A-F7 - S&S - Cure Soffit & Stem Concrete	7	27-Oct-26	02-Nov-26	10	2							
CON-25750	S2 - A-F7 - S&S - Strip Interior Girder Forms & Walkways	9	27-Oct-26	06-Nov-26	0	6							
CON-25760	S2 - A-F7 - S&S - Strip Diaphragms	6	04-Nov-26	12-Nov-26	0	4							
Const | St 2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F7 | Sup | Deck													

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
 ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
 43 of 128

SKANSKA | FLATIRON



Activity ID	Activity Name	Remaining Duration	Start	Finish	IF	Var - BL	2025	2026	2027	2028	2029	2030
CON-26030	S2 - A-F8 - S&S - Form Diaphragms & Blockouts		5 07-Oct-26	13-Oct-26	18	-14						
CON-26000	S2 - A-F8 - S&S - Place Soffit & Stem Concrete		2 14-Oct-26	15-Oct-26	9	-14						
CON-26010	S2 - A-F8 - S&S - Cure Soffit & Stem Concrete		7 16-Oct-26	22-Oct-26	32	-20						
CON-26020	S2 - A-F8 - S&S - Strip Interior Girder Forms & Walkways		9 16-Oct-26	28-Oct-26	18	-13						
CON-26040	S2 - A-F8 - S&S - Strip Diaphragms		4 29-Oct-26	03-Nov-26	13	-16						
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F8 | Sup | Deck												
CON-26050	S2 - A-F8 - DECK - Form Lost Deck		11 04-Nov-26	18-Nov-26	18	-15						
CON-26070	S2 - A-F8 - DECK - Form EOD		8 20-Nov-26	04-Dec-26	13	-16						
CON-26080	S2 - A-F8 - DECK - Install Screed Rails & Run-Offs		10 23-Nov-26	10-Dec-26	18	-15						
CON-26060	S2 - A-F8 - DECK - Place Deck Rebar		9 08-Dec-26	28-Dec-26	13	-15						
CON-26090	S2 - A-F8 - DECK - Set-up Bridge Finishing Machine & Work Bridges		1 11-Dec-26	11-Dec-26	18	-15						
CON-26120	S2 - A-F8 - DECK - Dry-run Bridge Finishing Machine		1 28-Dec-26	29-Dec-26	13	-15						
CON-26100	S2 - A-F8 - DECK - Place Bridge Deck Concrete		1 30-Dec-26	30-Dec-26	13	-15						
CON-26110	S2 - A-F8 - DECK - Cure Bridge Deck Concrete		7 31-Dec-26	06-Jan-27	20	-32						
CON-26130	S2 - A-F8 - DECK - Strip Screed Rails & EOD		2 07-Jan-27	08-Jan-27	14	-19						
CON-26180	S2 - A-F8 - DECK - Strip Exterior Girder & OH Forms		8 11-Jan-27	18-Jan-27	14	-11						
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Fr A-F8 | Sup | PT & BW												
CON-26150	S2 - A-F8 - PT - Install PT Strands		4 13-Jan-27	18-Jan-27	14	-22						
CON-26160	S2 - A-F8 - PT - Stress & Lock-off		3 19-Jan-27	21-Jan-27	14	-22						
CON-26170	S2 - A-F8 - PT - Grout PT Ducts		2 22-Jan-27	25-Jan-27	14	-22						
CON-26190	S2 - A-F8 - PT - F/P/S PT Blockouts		3 28-Jan-27	28-Jan-27	14	-16						
CON-31900	S2 - A-F8 - PT - Place Backwall Rebar A-A26		1 29-Jan-27	29-Jan-27	14	-16						
CON-31910	S2 - A-F8 - PT - Form 2S Backwall A-A26		1 01-Feb-27	01-Feb-27	14	-16						
CON-31920	S2 - A-F8 - PT - Place Backwall Concrete A-A26		1 02-Feb-27	02-Feb-27	14	-16						
CON-31930	S2 - A-F8 - PT - Cure Backwall Concrete A-A26		7 03-Feb-27	09-Feb-27	33	-22						
CON-31940	S2 - A-F8 - PT - Strip Backwall Forms/Clean Bridge Seat ' Day Minimum Removal A-A26		1 10-Feb-27	10-Feb-27	14	-16						
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinges												
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F1 / A-F2												
CON-48331	S2 - Br A - A-F1/A-F2 - FRP Hinge Lower Seat		10 05-Feb-27	19-Feb-27	1							
CON-48311	S2 - Br A - A-F1/A-F2 - FRP Hinge Upper Seat		10 22-Feb-27	05-Mar-27	1							
CON-48321	S2 - Br A - A-F1/A-F2 - Cure Hinges		10 06-Mar-27	15-Mar-27	3							
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F2 / A-F3												
CON-48361	S2 - Br A - A-F2/A-F3 - FRP Hinge Lower Seat		10 01-Feb-27	12-Feb-27								
CON-48341	S2 - Br A - A-F2/A-F3 - FRP Hinge Upper Seat		10 16-Feb-27	01-Mar-27	4							
CON-48351	S2 - Br A - A-F2/A-F3 - Cure Hinges		10 02-Mar-27	11-Mar-27	5							
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F2 / F-F1												
CON-48391	S2 - Br A - A-F2/F-F1 - FRP Hinge Lower Seat		10 11-Jan-27	22-Jan-27	20							
CON-48371	S2 - Br A - A-F2/F-F1 - FRP Hinge Upper Seat		10 25-Jan-27	05-Feb-27	20							
CON-48381	S2 - Br A - A-F2/F-F1 - Cure Hinges		10 06-Feb-27	15-Feb-27	31							
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F3 / A-F4												
CON-26200	S2 - Br A - A-F3/A-F4 - FRP Hinge Lower Seat		10 01-Feb-27	12-Feb-27	4	-12						
CON-26210	S2 - Br A - A-F3/A-F4 - FRP Hinge Upper Seat		10 16-Feb-27	01-Mar-27	4	-12						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

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■ Actual Level of Effort
■ Actual Work
■ Remaining Work
■ Critical Remaining Work
◆ Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
46 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var - BL	2025 2026 2027 2028 2029 2030											
							CON	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
CON-26220	S2 - BrA - A-F3/A-F4 - Cure Hinges	10	02-Mar-27	11-Mar-27	5	-19												
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F4 / A-F5		36	21-Jan-27	12-Mar-27	10	-10												
CON-26230	S2 - BrA - A-F4/A-F5 - FRP Hinge Lower Seat	10	21-Jan-27	03-Feb-27	20	0												
CON-26240	S2 - BrA - A-F4/A-F5 - FRP Hinge Upper Seat	10	17-Feb-27	02-Mar-27	12	-8												
CON-26250	S2 - BrA - A-F4/A-F5 - Cure Hinges	10	03-Mar-27	12-Mar-27	16	-12												
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F4 / C-F1		20	21-Jan-27	28-Feb-27	20	-10												
CON-26370	S2 - BrA - A-F4/C-F1 - FRP Hinge Lower Seat	10	21-Jan-27	03-Feb-27	20	-12												
CON-26350	S2 - BrA - A-F4/C-F1 - FRP Hinge Upper Seat	10	04-Feb-27	18-Feb-27	20	-12												
CON-26360	S2 - BrA - A-F4/C-F1 - Cure Hinges	10	19-Feb-27	28-Feb-27	28	-17												
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F5 / A-F6		20	12-Feb-27	22-Mar-27	0	-16												
CON-26260	S2 - BrA - A-F5/A-F6 - FRP Hinge Lower Seat	10	12-Feb-27	26-Feb-27	0	-16												
CON-26270	S2 - BrA - A-F5/A-F6 - FRP Hinge Upper Seat	10	01-Mar-27	12-Mar-27	0	-16												
CON-26280	S2 - BrA - A-F5/A-F6 - Cure Hinges	10	13-Mar-27	22-Mar-27	0	-22												
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F6 / A-F7		20	12-Feb-27	22-Mar-27	0	-21												
CON-26320	S2 - BrA - A-F6/A-F7 - FRP Hinge Lower Seat	10	12-Feb-27	26-Feb-27	0	-20												
CON-26330	S2 - BrA - A-F6/A-F7 - FRP Hinge Upper Seat	10	01-Mar-27	12-Mar-27	0	-20												
CON-26340	S2 - BrA - A-F6/A-F7 - Cure Hinges	10	13-Mar-27	22-Mar-27	0	-29												
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Hinge A-F7 / A-F8		10	12-Feb-27	22-Mar-27	4	-16												
CON-26350	S2 - BrA - A-F7/A-F8 - FRP Hinge Lower Seat	10	12-Feb-27	26-Feb-27	4	-17												
CON-26360	S2 - BrA - A-F7/A-F8 - FRP Hinge Upper Seat	10	01-Mar-27	12-Mar-27	4	-17												
CON-26370	S2 - BrA - A-F7/A-F8 - Cure Hinges	10	13-Mar-27	22-Mar-27	6	-23												
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Finishes		86	07-Jan-27	07-May-27	1	-25												
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Finishes | Parapet & App Slope		64	07-Jan-27	07-Apr-27	19	-3												
CON-31370	S2 - BrA - FRP Approach Slab A-A26	5	07-Jan-27	13-Jan-27	78													
CON-20530	S2 - BrA - FRP Approach Slab A-A1	5	21-Jan-27	27-Jan-27	57	14												
CON-20520	S2 - BrA - FRP Bridge Rail Frame 1	5	16-Feb-27	22-Feb-27	29	29												
CON-47101	S2 - BrA - FRP Bridge Rail Frames 2 & 3	3	19-Mar-27	30-Mar-27	3													
CON-47111	S2 - BrA - FRP Bridge Rail Frames 4 & 5	7	24-Mar-27	01-Apr-27	4													
CON-47131	S2 - BrA - FRP Bridge Rail Frame 7	3	24-Mar-27	31-Mar-27	6													
CON-47141	S2 - BrA - FRP Bridge Rail Frame 8	7	24-Mar-27	01-Apr-27	4													
CON-47121	S2 - BrA - FRP Bridge Rail Frame 6	7	30-Mar-27	07-Apr-27	0													
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Finishes | Deck Grinding		16	31-Mar-27	05-Apr-27	0													
CON-47151	S2 - BrA - Prep Deck & Perform Profilograph Testing Frames 1, 2 & 3 & F-F1	5	31-Mar-27	05-Apr-27	3													
CON-47161	S2 - BrA - Prep Deck & Perform Profilograph Testing Frames 4 & 5 & C-F1	5	02-Apr-27	08-Apr-27	4													
CON-47181	S2 - BrA - Grind & Groove Frames 1, 2 & 3 & F-F1	3	07-Apr-27	09-Apr-27	3													
CON-47171	S2 - BrA - Prep Deck & Perform Profilograph Testing Frames 5, 7 & 8	5	08-Apr-27	14-Apr-27	0													
CON-47191	S2 - BrA - Grind & Groove Frames 4 & 5 & C-F1	3	09-Apr-27	13-Apr-27	4													
CON-47201	S2 - BrA - Grind & Groove Frames 6, 7 & 8	7	15-Apr-27	23-Apr-27	0													
Const | St2 | Sep Access | Seg A | Bridge Sta 20+50 to Sta 51+96 | Finishes | Joints		20	12-Apr-27	07-May-27	1													
CON-47211	S2 - BrA - Install Exp Joint Assembly Abut A-A1	3	12-Apr-27	14-Apr-27	3													
CON-47261	S2 - BrA - Install Exp Joint Assembly Fr 3 / Fr 4	3	14-Apr-27	16-Apr-27	4													
CON-47221	S2 - BrA - Install Exp Joint Assembly Fr 1 / Fr 2	3	15-Apr-27	19-Apr-27	3													

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

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Actual Level of Effort
Actual Work

Remaining Work
Critical Remaining Work
Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
47 of 128

SKANSKA | FLATIRON

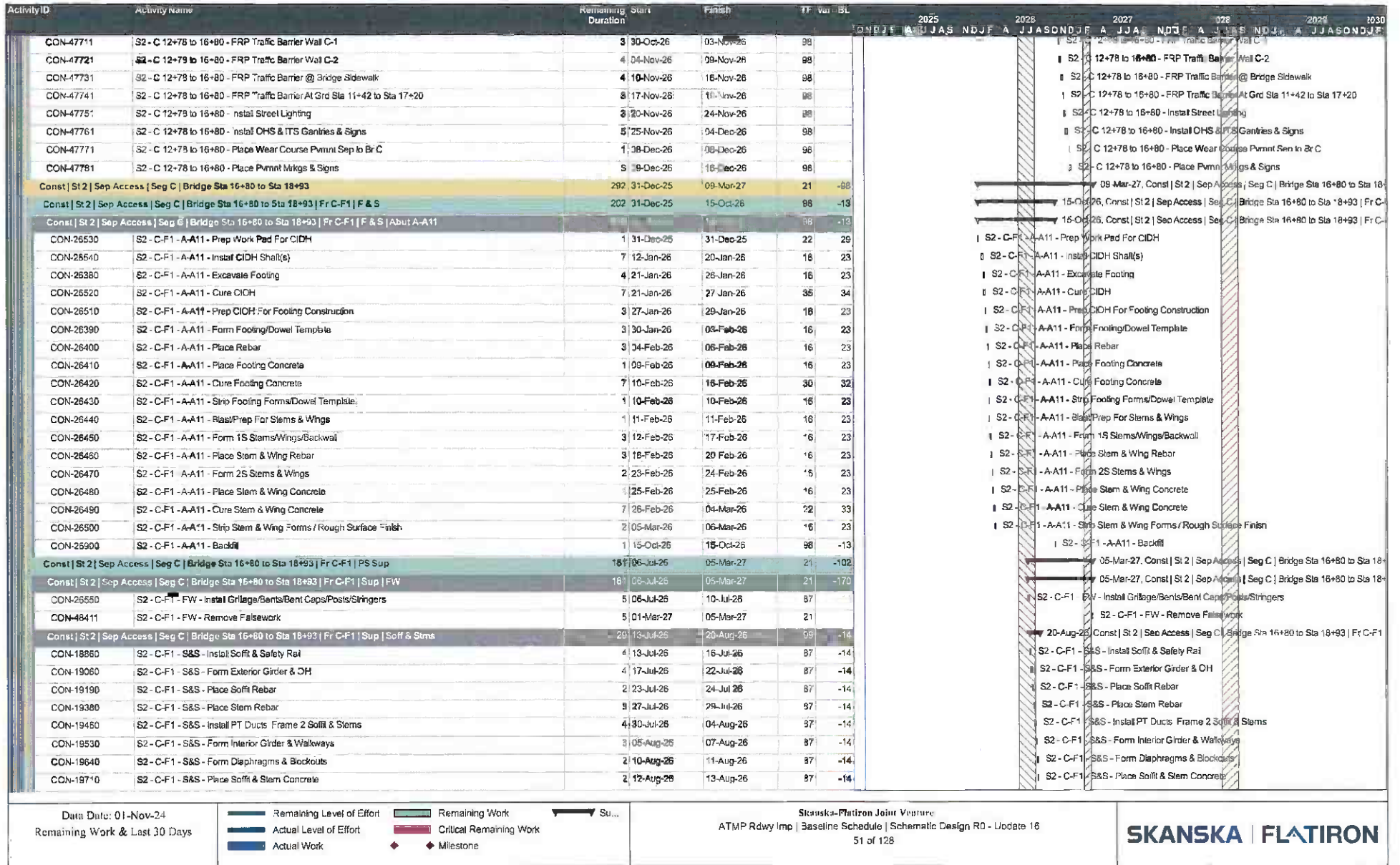
Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025 2026 2027 2028 2029											
								JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
CON-46850	S2 - Wall C-2 - Excavate for Footing B	7	20-Jan-26	28-Jan-26	267														
CON-46860	S2 - Wall C-2 - Install Backfill Soil Correction	4	29-Jan-26	03-Feb-26	267														
CON-46890	S2 - Wall C-2 - Excavate Keyway Footing B	2	04-Feb-26	05-Feb-26	267														
CON-46910	S2 - Wall C-2 - FRP Footing Section 2	6	06-Feb-26	13-Feb-26	267														
CON-46920	S2 - Wall C-2 - Backfill to Top of Footing B	2	17-Feb-26	18-Feb-26	267														
Const | St 2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 1		9	25-Mar-26	07-Apr-26	248	52													
CON-11230	S2 - Wall C-2 - FRP Panels Section 1	4	26-Mar-26	31-Mar-26	248	64													
CON-11280	S2 - Wall C-2 - Cure Section 1	7	01-Apr-26	07-Apr-26	370	85													
CON-11330	S2 - Wall C-2 - Strip Panels Section 1	2	02-Apr-26	03-Apr-26	248	64													
Const | St 2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 2		9	06-Apr-26	16-Apr-26	777	59													
CON-11240	S2 - Wall C-2 - FRP Panels Section 2	4	06-Apr-26	09-Apr-26	248	80													
CON-11290	S2 - Wall C-2 - Cure Section 2	7	10-Apr-26	16-Apr-26	370	82													
CON-11340	S2 - Wall C-2 - Strip Panels Section 2	2	13-Apr-26	14-Apr-26	770	60													
Const | St 2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 3a		9	19-Feb-26	03-Mar-26	267	93													
CON-11250	S2 - Wall C-2 - FRP Panels Section 3a	4	19-Feb-26	24-Feb-26	267	95													
CON-11300	S2 - Wall C-2 - Cure Section 3a	7	25-Feb-26	03-Mar-26	396	129													
CON-11350	S2 - Wall C-2 - Strip Panels Section 3a	2	26-Feb-26	27-Feb-26	266	95													
Const | St 2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 3b		9	19-Feb-26	03-Mar-26	273														
CON-46770	S2 - Wall C-2 - FRP Panels Section 3b	4	19-Feb-26	24-Feb-26	273														
CON-46780	S2 - Wall C-2 - Cure Section 3b	7	25-Feb-26	03-Mar-26	405														
CON-46790	S2 - Wall C-2 - Strip Panels Section 3b	2	26-Feb-26	27-Feb-26	273														
Const | St 2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 3c		9	02-Mar-26	12-Mar-26	265														
CON-46820	S2 - Wall C-2 - FRP Panels Section 3c	4	02-Mar-26	05-Mar-26	266														
CON-46830	S2 - Wall C-2 - Cure Section 3C	7	06-Mar-26	12-Mar-26	396														
CON-46840	S2 - Wall C-2 - Strip Panels Section 3C	2	09-Mar-26	10-Mar-26	266														
Const | St 2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 4		9	02-Mar-26	12-Mar-26	802	89													
CON-11260	S2 - Wall C-2 - FRP Panels Section 4	4	02-Mar-26	05-Mar-26	273	91													
CON-11310	S2 - Wall C-2 - Cure Section 4	7	06-Mar-26	12-Mar-26	405	125													
CON-11360	S2 - Wall C-2 - Strip Panels Section 4	2	09-Mar-26	10-Mar-26	804	91													
Const | St 2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Section 5		9	11-Mar-26	21-Mar-26	796	94													
CON-11270	S2 - Wall C-2 - FRP Panels Section 5	4	11-Mar-26	16-Mar-26	266	97													
CON-11320	S2 - Wall C-2 - Cure Section 5	7	17-Mar-26	23-Mar-26	394	117													
CON-11370	S2 - Wall C-2 - Strip Panels Section 5	2	18-Mar-26	19-Mar-26	797	86													
Const | St 2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Wall C-2 | Finishes		5	17-Apr-26	23-Apr-26	248	56													
CON-15450	S2 - Wall C-2 - Surface Finish Front Face / Install Arch Finishes	5	17-Apr-26	23-Apr-26	248	86													
Const | St 2 | Sep Access | Seg C | Ret Fill Sta 12+78 to Sta 16+80 | Rdwy Section		4	16-Jun-26	16-Jun-26		-5													
CON-47691	S2 - C 12+78 to 16+80 - Install Retaining Barrier	3	16-Jun-26	18-Jun-26	159														
CON-14500	S2 - C 12+78 to 16+80 - Place, Contour & Grade Wall BF & Ramp Embankment	22	19-Jun-26	21-Jul-26	159	83													
CON-14580	S2 - C 12+78 to 16+80 - Fine Grade Subgrade	2	22-Jul-26	23-Jul-26	159	78													
CON-47701	S2 - C 12+78 to 16+80 - Install Curb & Gutter	3	24-Jul-26	28-Jul-26	159														
CON-14540	S2 - C 12+78 to 16+80 - Place & Fine Grade Agg Base	4	23-Oct-26	28-Oct-26	98	23													
CON-14550	S2 - C 12+78 to 16+80 - Place Base Course Pmnt	1	29-Oct-26	29-Oct-26	98	23													

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

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 Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Flariron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
50 of 128

SKANSKA FLARIRON



Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var - BL	2025	2026	2027	2028	2029	2030
							JUN	JUL	AUG	SEP	OCT	NOV
CON-19740	S2 - C-F1 - S&S - Cure Soffit & Stem Concrete	7	14-Aug-26	20-Aug-26	158	-20						
CON-19750	S2 - C-F1 - S&S - Strip Interior Girder Forms & Walkways	2	14-Aug-26	17-Aug-26	87	-14						
CON-19830	S2 - C-F1 - S&S - Strip Diaphragms	2	18-Aug-26	19-Aug-26	87	-14						
Const | St 2 | Sep Access | Seg C | Bridge Sta 16+80 to Sta 18+93 | Fr C-F1 | Sup | Deck												
CON-19840	S2 - C-F1 - DECK - Form Lost Deck	3	21-Aug-26	25-Aug-26	87	-14						
CON-19920	S2 - C-F1 - DECK - Form EOD	2	26-Aug-26	27-Aug-26	87	-14						
CON-19940	S2 - C-F1 - DECK - Install Screed Rails & Run-Offs	3	27-Aug-26	31-Aug-26	90	-14						
CON-19970	S2 - C-F1 - DECK - Place Deck Rebar	6	28-Aug-26	04-Sep-26	87	-14						
CON-19980	S2 - C-F1 - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	01-Sep-26	01-Sep-26	90	-14						
CON-20020	S2 - C-F1 - DECK - Dry-run Bridge Finishing Machine	1	08-Sep-26	08-Sep-26	87	-14						
CON-20050	S2 - C-F1 - DECK - Place Bridge Deck Concrete	1	09-Sep-26	09-Sep-26	87	-14						
CON-20060	S2 - C-F1 - DECK - Cure Bridge Deck Concrete	7	10-Sep-26	16-Sep-26	130	-18						
CON-20070	S2 - C-F1 - DECK - Strip Screed Rails & EOD	1	17-Sep-26	17-Sep-26	87	-19						
CON-20210	S2 - C-F1 - DECK - Strip Exterior Girder & OH Forms	2	18-Sep-26	21-Sep-26	87	-3						
Const | St 2 | Sep Access | Seg C | Bridge Sta 16+80 to Sta 18+93 | Fr C-F1 | Sup | PT & BW												
CON-20090	S2 - C-F1 - PT - Install PT Strands	4	16-Sep-26	21-Sep-26	87	-17						
CON-20140	S2 - C-F1 - PT - Stress & Lock-off	3	22-Sep-26	24-Sep-26	87	-15						
CON-20150	S2 - C-F1 - PT - Grout PT Ducts	2	25-Sep-26	28-Sep-26	87	-15						
CON-20220	S2 - C-F1 - PT - F/PIS PT Blockouts	3	29-Sep-26	01-Oct-26	87	-13						
CON-20300	S2 - C-F1 - PT - Place Backwall Rebar A-A11	1	02-Oct-26	02-Oct-26	98	-13						
CON-20320	S2 - C-F1 - PT - Form 2S Backwall A-A11	1	05-Oct-26	05-Oct-26	98	-13						
CON-20340	S2 - C-F1 - PT - Place Backwall Concrete A-A11	1	06-Oct-26	06-Oct-26	98	-13						
CON-20350	S2 - C-F1 - PT - Cure Backwall Concrete A-A11	7	07-Oct-26	13-Oct-26	155	-19						
CON-20360	S2 - C-F1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal A-A11	1	14-Oct-26	14-Oct-26	98	-13						
Const | St 2 | Sep Access | Seg C | Bridge Sta 16+80 to Sta 18+93 | Finishes												
CON-10810	S2 - Br C - FRP Approach Slab A-A11	5	16-Oct-26	22-Oct-26	96	-13						
CON-10770	S2 - Br C - FRP Bridge Rail	2	08-Mar-27	09-Mar-27	21	-102						
Const | St 2 | Sep Access | Seg D												
Const | St 2 | Sep Access | Seg D | Retained Fill Sta 13+98 to Sta 18+62												
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1												
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1 | CIDH												
CON-11660	S2 - Wall D-1 - Prep Work Pad for CIDH / Remove Ex Pmnls	4	25-Jun-26	30-Jun-26	51	-44						
CON-11670	S2 - Wall D-1 - Install CIDH Shafts	38	07-Jul-26	27-Aug-26	48	-47						
CON-11680	S2 - Wall D-1 - Final Cure CIDH Shafts	7	28-Aug-26	03-Sep-26	559	-66						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1 | Section 1												
CON-11690	S2 - Wall D-1 - Excavate for Footing Section 1	1	04-Sep-26	04-Sep-26	369	-47						
CON-11740	S2 - Wall D-1 - FRP Footing Section 1	3	08-Sep-26	10-Sep-26	374	-47						
CON-11790	S2 - Wall D-1 - FRP Panels Section 1	6	11-Sep-26	18-Sep-26	366	-47						
CON-11840	S2 - Wall D-1 - Final Cure Section 1	1	19-Sep-26	19-Sep-26	583	-66						
CON-11890	S2 - Wall D-1 - Strip Panels Section 1	2	21-Sep-26	22-Sep-26	387	-46						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1 | Section 2												
CON-11700	S2 - Wall D-1 - Excavate for Footing Section 2	1	08-Sep-26	08-Sep-26	369	-47						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
Actual Level of Effort
Actual Work

Remaining Work
Critical Remaining Work
Milestone

Summary

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
52 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var-BL	202520262027202820292030											
							JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
CON-11750	S2 - Wall D-1 - FRP Footing Section 2		11-Sep-26	15-Sep-26	374	-47												
CON-11800	S2 - Wall D-1 - FRP Panels Section 2		16-Sep-26	23-Sep-26	383	-47												
CON-11850	S2 - Wall D-1 - Final Cure Section 2		24-Sep-26	24-Sep-26	578	-68												
CON-11900	S2 - Wall D-1 - Strip Panels Section 2		25-Sep-26	28-Sep-26	383	-48												
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1 | Section 3			17-Sep-26	01-Oct-26	380	-47												
CON-11710	S2 - Wall D-1 - Excavate for Footing Section 3		09-Sep-26	09-Sep-26	369	-47												
CON-11760	S2 - Wall D-1 - FRP Footing Section 3		16-Sep-26	19-Sep-26	374	-47												
CON-11810	S2 - Wall D-1 - FRP Panels Section 3		21-Sep-26	25-Sep-26	380	-47												
CON-11860	S2 - Wall D-1 - Final Cure Section 3		29-Sep-26	29-Sep-26	573	-68												
CON-11910	S2 - Wall D-1 - Strip Panels Section 3		30-Sep-26	01-Oct-26	380	-47												
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1 | Section 4			19-Sep-26	06-Oct-26	377	-47												
CON-11720	S2 - Wall D-1 - Excavate for Footing Section 4		10-Sep-26	10-Sep-26	369	-47												
CON-11770	S2 - Wall D-1 - FRP Footing Section 4		21-Sep-26	23-Sep-26	374	-47												
CON-11820	S2 - Wall D-1 - FRP Panels Section 4		24-Sep-26	01-Oct-26	377	-47												
CON-11870	S2 - Wall D-1 - Final Cure Section 4		02-Oct-26	02-Oct-26	570	-66												
CON-11920	S2 - Wall D-1 - Strip Panels Section 4		05-Oct-26	06-Oct-26	377	-47												
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1 | Section 5			21-Sep-26	08-Oct-26	374	-47												
CON-11730	S2 - Wall D-1 - Excavate for Footing Section 5		11-Sep-26	11-Sep-26	369	-47												
CON-11780	S2 - Wall D-1 - FRP Footing Section 5		24-Sep-26	28-Sep-26	374	-47												
CON-11830	S2 - Wall D-1 - FRP Panels Section 5		29-Sep-26	06-Oct-26	374	-47												
CON-11880	S2 - Wall D-1 - Final Cure Section 5		07-Oct-26	07-Oct-26	566	-68												
CON-11930	S2 - Wall D-1 - Strip Panels Section 5		09-Oct-26	09-Oct-26	374	-47												
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-1 | Finishes			12-Oct-26	16-Oct-26	374	-47												
CON-14410	S2 - Wall D-1 - Surface Finish Front Face / Install Arch Finishes		12-Oct-26	16-Oct-26	374	-47												
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2			08-Aug-26	28-Dec-26	334	-82												
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | CIDH			13-Aug-26	30-Oct-26	334	-82												
CON-11940	S2 - Wall D-2 - Prep Work Pad for CIDH / Remove Ex Pmnts		13-Aug-26	18-Aug-26	55	-78												
CON-11950	S2 - Wall D-2 - Install CIDH Shafts		28-Aug-26	23-Oct-26	48	-85												
CON-11960	S2 - Wall D-2 - Final Cure CIDH Shafts		24-Oct-26	30-Oct-26	509	-121												
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Section 1			02-Nov-26	19-Nov-26	348	-82												
CON-11970	S2 - Wall D-2 - Excavate for Footing Section 1		02-Nov-26	02-Nov-26	334	-82												
CON-12020	S2 - Wall D-2 - FRP Footing Section 1		03-Nov-26	05-Nov-26	334	-82												
CON-12070	S2 - Wall D-2 - FRP Panels Section 1		06-Nov-26	11-Nov-26	346	-82												
CON-12120	S2 - Wall D-2 - Final Cure Section 1		17-Nov-26	17-Nov-26	524	-118												
CON-12170	S2 - Wall D-2 - Strip Panels Section 1		18-Nov-26	19-Nov-26	346	-82												
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Section 2			03-Nov-26	24-Nov-26	343	-83												
CON-11980	S2 - Wall D-2 - Excavate for Footing Section 2		03-Nov-26	03-Nov-26	336	-82												
CON-12030	S2 - Wall D-2 - FRP Footing Section 2		06-Nov-26	10-Nov-26	334	-82												
CON-12080	S2 - Wall D-2 - FRP Panels Section 2		12-Nov-26	11-Nov-26	343	-82												
CON-12130	S2 - Wall D-2 - Final Cure Section 2		20-Nov-26	20-Nov-26	521	-118												
CON-12180	S2 - Wall D-2 - Strip Panels Section 2		23-Nov-26	24-Nov-26	343	-83												
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Section 3			04-Nov-26	02-Dec-26	340	-82												

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Remaining Work
 Actual Level of Effort
 Critical Remaining Work
 Actual Work
 Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update:16
53 of 128

SKANSKA **FLATIRON**

Activity ID	Activity Name	Remaining Duration	Start	Finish	IF	Var - EL	2025	2026	2027	2028	2029	2030
CON-11990	S2 - Wall D-2 - Excavate for Footing Section 3	4	04-Nov-26	04-Nov-26	338	-82						
CON-12040	S2 - Wall D-2 - FRP Footing Section 3	3	12-Nov-26	16-Nov-26	334	-82						
CON-12090	S2 - Wall D-2 - FRP Panels Section 3	6	17-Nov-26	24-Nov-26	340	-82						
CON-12140	S2 - Wall D-2 - Final Cure Section 3	1	25-Nov-26	25-Nov-26	516	-118						
CON-12190	S2 - Wall D-2 - Strip Panels Section 3	2	01-Dec-26	02-Dec-26	340	-82						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Section 4												
CON-12000	S2 - Wall D-2 - Excavate for Footing Section 4	1	05-Nov-26	05-Nov-26	340	-82						
CON-12050	S2 - Wall D-2 - FRP Footing Section 4	3	17-Nov-26	19-Nov-26	334	-82						
CON-12100	S2 - Wall D-2 - FRP Panels Section 4	6	20-Nov-26	02-Dec-26	337	-82						
CON-12150	S2 - Wall D-2 - Final Cure Section 4	1	03-Dec-26	03-Dec-26	508	-121						
CON-12200	S2 - Wall D-2 - Strip Panels Section 4	2	04-Dec-26	06-Dec-26	337	-82						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Section 5												
CON-12010	S2 - Wall D-2 - Excavate for Footing Section 5	1	06-Nov-26	06-Nov-26	342	-82						
CON-12060	S2 - Wall D-2 - FRP Footing Section 5	3	20-Nov-26	24-Nov-26	334	-82						
CON-12110	S2 - Wall D-2 - FRP Panels Section 5	6	25-Nov-26	08-Dec-26	334	-82						
CON-12160	S2 - Wall D-2 - Final Cure Section 5	1	09-Dec-26	09-Dec-26	502	-124						
CON-12210	S2 - Wall D-2 - Strip Panels Section 5	2	10-Dec-26	11-Dec-26	334	-82						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Wall D-2 | Finishes												
CON-14420	S2 - Wall D-2 - Surface Finish Front Face / Install Arch Finishes	5	15-Dec-26	28-Dec-26	334	-82						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 13+98 to Sta 18+62 | Rdwy Section												
CON-14710	S2 - D 30+21 to 34+90 - Place, Contour & Grade Wall BF & Ramp Embankment	33	05-Apr-27	19-May-27	267	-149						
CON-14720	S2 - D 30+21 to 34+90 - Install Drainage Pipe & Appurtenances	5	20-May-27	26-May-27	267	-149						
CON-14730	S2 - D 30+21 to 34+90 - Install Drainage Boxes & Appurtenances	10	25-May-27	08-Jun-27	267	-149						
CON-14770	S2 - D 30+21 to 34+90 - Fine Grade Subgrade	3	09-Jun-27	11-Jun-27	267	-149						
CON-14740	S2 - D 30+21 to 34+90 - FRP Traffic Barrier	6	14-Jun-27	24-Jun-27	267	-149						
CON-14750	S2 - D 30+21 to 34+90 - Place & Fine Grade Agg Base	5	22-Jun-27	28-Jun-27	267	-149						
CON-14760	S2 - D 30+21 to 34+90 - Place HMA Pavement	1	29-Jun-27	29-Jun-27	267	-149						
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97												
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S												
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S | Abut D1-A1												
CON-16950	S2 - D1-F1 - D1-A1 - Prep Work Pad For CIDH	1	24-Jun-26	24-Jun-26	48	-78						
CON-17050	S2 - D1-F1 - D1-A1 - Install CIDH Shaft(s)	7	25-Jun-26	06-Jul-26	48	-78						
CON-17160	S2 - D1-F1 - D1-A1 - Install SOE/Excavate Footing	4	07-Jul-26	10-Jul-26	55	-78						
CON-17170	S2 - D1-F1 - D1-A1 - Cure CIDH	7	07-Jul-26	13-Jul-26	90	-112						
CON-17280	S2 - D1-F1 - D1-A1 - Prep CIDH For Footing Construction	3	13-Jul-26	15-Jul-26	55	-78						
CON-17420	S2 - D1-F1 - D1-A1 - Form Footing/Dowel Template	3	16-Jul-26	20-Jul-26	55	-78						
CON-17600	S2 - D1-F1 - D1-A1 - Place Rebar	3	24-Jul-26	28-Jul-26	55	-78						
CON-17750	S2 - D1-F1 - D1-A1 - Place Footing Concrete	1	24-Jul-26	24-Jul-26	55	-78						
CON-17830	S2 - D1-F1 - D1-A1 - Cure Footing Concrete	7	25-Jul-26	31-Jul-26	87	-112						
CON-17840	S2 - D1-F1 - D1-A1 - Strip Footing Forms/Dowel Template	1	27-Jul-26	27-Jul-26	55	-78						
CON-17910	S2 - D1-F1 - D1-A1 - Blast/Prep For Stems & Wings	1	28-Jul-26	28-Jul-26	55	-78						
CON-17970	S2 - D1-F1 - D1-A1 - Form 1S Stems/Wings/Backwall	3	29-Jul-26	31-Jul-26	55	-78						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

■ Remaining Level of Effort ■ Remaining Work
■ Actual Level of Effort ■ Critical Remaining Work
■ Actual Work ■ Milestone

Skanska-Platiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
54 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	EF	Var	2025	2026	2027	2028	2029	2030
CON-18070	S2 - D1-F1 - D1-A1 - Place Stem & Wing Rebar	3	03-Aug-26	05-Aug-26	55	-78						
CON-18210	S2 - D1-F1 - D1-A1 - Form 2S Stems & Wings	2	05-Aug-26	07-Aug-26	55	-78						
CON-18270	S2 - D1-F1 - D1-A1 - Place Stem & Wing Concrete	1	10-Aug-26	10-Aug-26	55	-78						
CON-18340	S2 - D1-F1 - D1-A1 - Cure Stem & Wing Concrete	7	11-Aug-26	17-Aug-26	507	-112						
CON-18350	S2 - D1-F1 - D1-A1 - Strip Stem & Wing Forms / Rough Surface Finish	2	11-Aug-26	12-Aug-26	55	-78						
CON-18360	S2 - D1-F1 - D1-A1 - Backfill	1	13-Aug-26	13-Aug-26	452	-78						
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S | Bent D1-B2												
CON-17000	S2 - D1-F1 - D1-B2 - Prep Work Pad For Type 2 Shaft	1	11-Aug-26	11-Aug-26	66	-111						
CON-17080	S2 - D1-F1 - D1-B2 - Install CIDH Shaft(s)	4	12-Aug-26	17-Aug-26	58	-86						
CON-17110	S2 - D1-F1 - D1-B2 - Cure Shaft	7	18-Aug-26	24-Aug-26	395	-124						
CON-17120	S2 - D1-F1 - D1-B2 - Prep Transition Zone/Set Column Cage & Guy	4	18-Aug-26	21-Aug-26	267	-88						
CON-17300	S2 - D1-F1 - D1-B2 - Place Transition Zone Concrete	1	25-Aug-26	25-Aug-26	268	-88						
CON-17330	S2 - D1-F1 - D1-B2 - Cure Transition Zone Concrete	7	26-Aug-26	01-Sep-26	397	-124						
CON-17340	S2 - D1-F1 - D1-B2 - Form Column	5	26-Aug-26	28-Aug-26	267	-88						
CON-17450	S2 - D1-F1 - D1-B2 - Connect Thermal Control System	1	31-Aug-26	31-Aug-26	267	-88						
CON-17570	S2 - D1-F1 - D1-B2 - Place Column Concrete	1	02-Sep-26	02-Sep-26	268	-88						
CON-17590	S2 - D1-F1 - D1-B2 - Cure Column Concrete	7	03-Sep-26	09-Sep-26	484	-124						
CON-17670	S2 - D1-F1 - D1-B2 - Strip Column Forms 1 Day Minimum Removal	1	03-Sep-26	03-Sep-26	268	-88						
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S | Bent D1-B3												
CON-16600	S2 - D1-F1 - D1-B3 - Install CIDH Shaft(s)	4	21-May-26	27-May-26	3	-77						
CON-16690	S2 - D1-F1 - D1-B3 - Cure Shaft	7	28-May-26	03-Jun-26	51	-111						
CON-16700	S2 - D1-F1 - D1-B3 - Prep Transition Zone/Set Column Cage & Guy	4	28-May-26	02-Jun-26	4	-77						
CON-16830	S2 - D1-F1 - D1-B3 - Place Transition Zone Concrete	1	04-Jun-26	04-Jun-26	3	-77						
CON-16840	S2 - D1-F1 - D1-B3 - Cure Transition Zone Concrete	7	05-Jun-26	11-Jun-26	5	-111						
CON-16880	S2 - D1-F1 - D1-B3 - Form Column	3	12-Jun-26	16-Jun-26	3	-78						
CON-16890	S2 - D1-F1 - D1-B3 - Connect Thermal Control System	1	17-Jun-26	17-Jun-26	3	-78						
CON-16900	S2 - D1-F1 - D1-B3 - Place Column Concrete	1	18-Jun-26	18-Jun-26	3	-78						
CON-16910	S2 - D1-F1 - D1-B3 - Cure Column Concrete	7	19-Jun-26	25-Jun-26	560	-111						
CON-16920	S2 - D1-F1 - D1-B3 - Strip Column Forms 1 Day Minimum Removal	1	19-Jun-26	19-Jun-26	3	-78						
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S | Bent D1-B4												
CON-17020	S2 - D1-F1 - D1-B4 - Prep Work Pad For Type 2 Shaft	1	26-Feb-26	26-Feb-26	7	-17						
CON-17260	S2 - D1-F1 - D1-B4 - Install CIDH Shaft(s)	4	10-Mar-26	13-Mar-26	0	-21						
CON-17460	S2 - D1-F1 - D1-B4 - Cure Shaft	7	14-Mar-26	20-Mar-26	552	-30						
CON-17470	S2 - D1-F1 - D1-B4 - Prep Transition Zone/Set Column Cage & Guy	4	15-Mar-26	19-Mar-26	376	-21						
CON-17720	S2 - D1-F1 - D1-B4 - Place Transition Zone Concrete	1	23-Mar-26	23-Mar-26	375	-22						
CON-17770	S2 - D1-F1 - D1-B4 - Cure Transition Zone Concrete	7	24-Mar-26	30-Mar-26	552	-32						
CON-17780	S2 - D1-F1 - D1-B4 - Form Column	3	24-Mar-26	26-Mar-26	376	-22						
CON-17920	S2 - D1-F1 - D1-B4 - Connect Thermal Control System	1	27-Mar-26	27-Mar-26	378	-22						
CON-18080	S2 - D1-F1 - D1-B4 - Place Column Concrete	1	31-Mar-26	31-Mar-26	375	-22						
CON-18140	S2 - D1-F1 - D1-B4 - Cure Column Concrete	7	01-Apr-26	07-Apr-26	639	-32						
CON-18150	S2 - D1-F1 - D1-B4 - Strip Column Forms 1 Day Minimum Removal	1	01-Apr-26	01-Apr-26	375	-22						
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S | Bent D1-B5												
		22	16-Mar-26	14-Apr-26	368	-13						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
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 Milestone

Skanska Flatiron Joint Venture
 ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
 55 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	IF	Var - BL	2025	2025	2026	2026	2027	2027	2028	2028	2029	2030
CON-16420	S2 - D1-F1 - D1-B5 - Install CIDH Shaft(s)	4	16-Mar-26	19-Mar-26	0	-13										
CON-16480	S2 - D1-F1 - D1-B5 - Cure Shaft	7	20-Mar-26	26-Mar-26	539	-17										
CON-16490	S2 - D1-F1 - D1-B5 - Prep Transition Zone/Set Column Cage & Guy	4	20-Mar-26	25-Mar-26	387	-13										
CON-16620	S2 - D1-F1 - D1-B5 - Place Transition Zone Concrete	1	27-Mar-26	27-Mar-26	398	-13										
CON-16630	S2 - D1-F1 - D1-B5 - Cure Transition Zone Concrete	7	28-Mar-26	03-Apr-26	541	-17										
CON-16640	S2 - D1-F1 - D1-B5 - Form Column	8	30-Mar-26	07-Apr-26	357	-13										
CON-16710	S2 - D1-F1 - D1-B5 - Connect Thermal Control System	1	02-Apr-26	02-Apr-26	367	-13										
CON-16790	S2 - D1-F1 - D1-B5 - Place Column Concrete	1	06-Apr-26	06-Apr-26	366	-13										
CON-16800	S2 - D1-F1 - D1-B5 - Cure Column Concrete	7	07-Apr-26	13-Apr-26	539	-19										
CON-16820	S2 - D1-F1 - D1-B5 - Strip Column Forms 1 Day Minimum Removal	1	14-Apr-26	14-Apr-26	365	-13										
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S | Bent D1-B6		22	01-Apr-26	10-Apr-26	354	-21										
CON-16400	S2 - D1-F1 - D1-B6 - Install CIDH Shaft(s)	4	01-Apr-26	06-Apr-26	9	-21										
CON-16430	S2 - D1-F1 - D1-B6 - Cure Shaft	7	07-Apr-26	13-Apr-26	521	-31										
CON-16440	S2 - D1-F1 - D1-B6 - Prep Transition Zone/Set Column Cage & Guy	4	07-Apr-26	10-Apr-26	355	-21										
CON-16500	S2 - D1-F1 - D1-B6 - Place Transition Zone Concrete	1	14-Apr-26	14-Apr-26	354	-21										
CON-16530	S2 - D1-F1 - D1-B6 - Cure Transition Zone Concrete	7	15-Apr-26	21-Apr-26	523	-29										
CON-16540	S2 - D1-F1 - D1-B6 - Form Column	3	15-Apr-26	17-Apr-26	355	-21										
CON-16570	S2 - D1-F1 - D1-B6 - Connect Thermal Control System	1	20-Apr-26	20-Apr-26	355	-21										
CON-16650	S2 - D1-F1 - D1-B6 - Place Column Concrete	1	22-Apr-26	22-Apr-26	354	-21										
CON-16670	S2 - D1-F1 - D1-B6 - Cure Column Concrete	7	23-Apr-26	29-Apr-26	523	-29										
CON-16680	S2 - D1-F1 - D1-B6 - Strip Column Forms 1 Day Minimum Removal	1	30-Apr-26	30-Apr-26	354	-21										
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | F & S | Bent D1-A7		13	04-Sep-26	05-Apr-27	318	-124										
CON-26720	S2 - D1-F1 - D1-A7 - Prep Work Pad For CIDH	1	13-Apr-26	13-Apr-26	281	-44										
CON-26570	S2 - D1-F1 - D1-A7 - Install CIDH Shaft(s)	7	01-May-26	11-May-26	16	-57										
CON-26600	S2 - D1-F1 - D1-A7 - Install SOE/Excavate Footing	4	12-May-26	15-May-26	44	-57										
CON-26710	S2 - D1-F1 - D1-A7 - Cure CIDH	7	12-May-26	18-May-26	76	-81										
CON-26700	S2 - D1-F1 - D1-A7 - Prep CIDH For Footing Construction	3	18-May-26	20-May-26	44	-57										
CON-26580	S2 - D1-F1 - D1-A7 - Form Footing/Dowel Template	3	21-May-26	25-May-26	44	-57										
CON-26590	S2 - D1-F1 - D1-A7 - Place Rebar	3	27-May-26	28-May-26	44	-57										
CON-26600	S2 - D1-F1 - D1-A7 - Place Footing Concrete	1	01-Jun-26	01-Jun-26	44	-57										
CON-26610	S2 - D1-F1 - D1-A7 - Cure Footing Concrete	7	02-Jun-26	08-Jun-26	70	-62										
CON-26620	S2 - D1-F1 - D1-A7 - Strip Footing Forms/Dowel Template	1	02-Jun-26	02-Jun-26	44	-57										
CON-26630	S2 - D1-F1 - D1-A7 - Blast/Prep For Stems & Wings	1	03-Jun-26	03-Jun-26	44	-57										
CON-26640	S2 - D1-F1 - D1-A7 - Form 1S Stems/Wings/Backwall	3	04-Jun-26	08-Jun-26	44	-57										
CON-26650	S2 - D1-F1 - D1-A7 - Place Stem & Wing Rebar	3	08-Jun-26	11-Jun-26	44	-57										
CON-26660	S2 - D1-F1 - D1-A7 - Form 2S Stems & Wings	2	12-Jun-26	15-Jun-26	44	-57										
CON-26670	S2 - D1-F1 - D1-A7 - Place Stem & Wing Concrete	1	16-Jun-26	16-Jun-26	44	-57										
CON-26680	S2 - D1-F1 - D1-A7 - Cure Stem & Wing Concrete	7	17-Jun-26	23-Jun-26	63	-62										
CON-26690	S2 - D1-F1 - D1-A7 - Strip Stem & Wing Forms / Rough Surface Finish	2	24-Jun-26	25-Jun-26	44	-57										
CON-26610	S2 - D1-F1 - D1-A7 - Backfill	1	26-Jun-26	26-Jun-26	498	-57										
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | Sup		13	04-Sep-26	05-Apr-27	318	-124										
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | Sup | FW		13	04-Sep-26	30-Mar-27	322	-208										

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
ATMP, Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
56 of 128

SKANSKA | FLATIRON

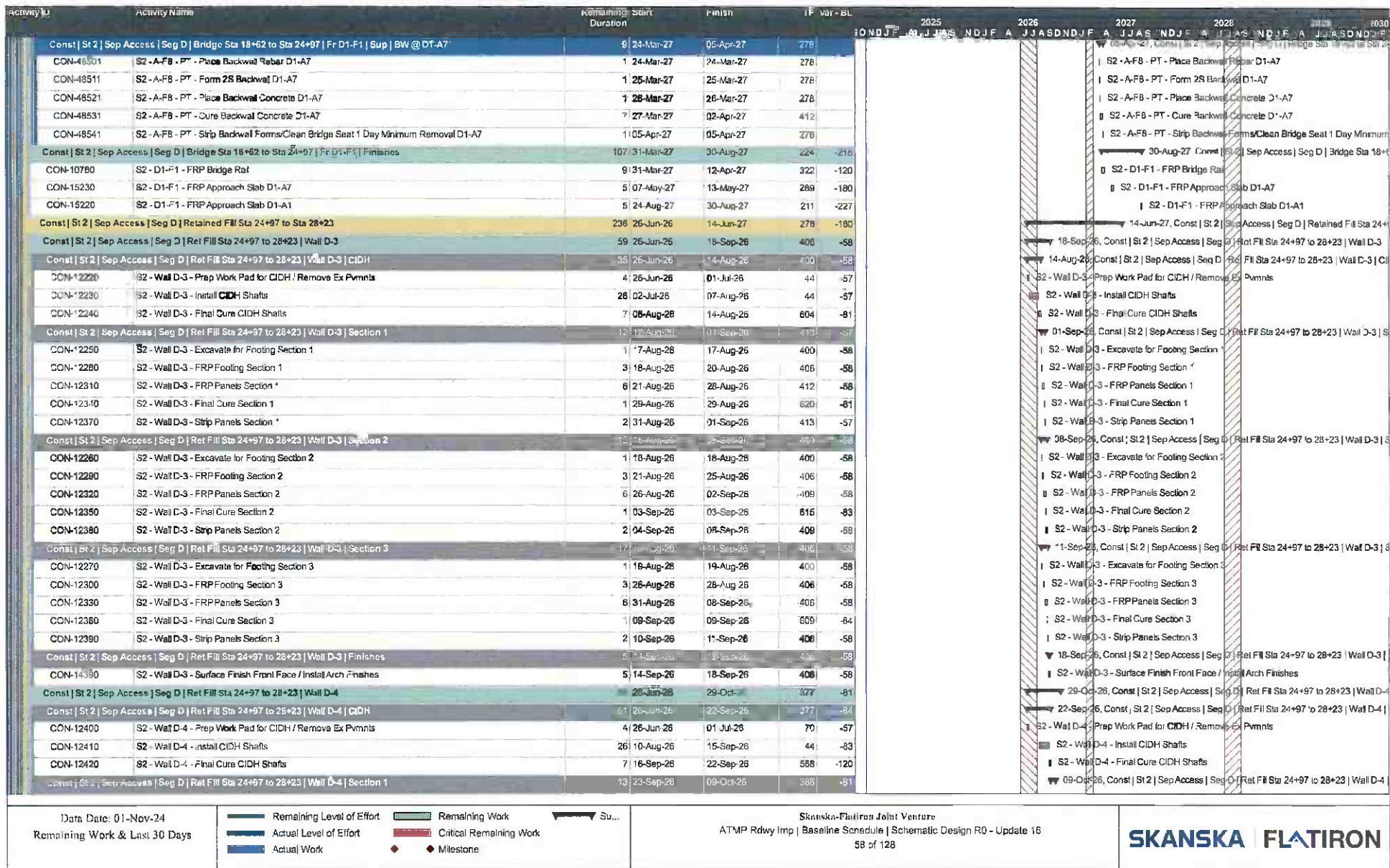
Activity ID	Activity Name	Remaining Duration	Start	Finish	TP	Var	DL	2025	2026	2027	2028	2029
CON-18440	S2 - D1-F1 - FW - Install Grillage/Bents/Bent Caps/Posts W Side Of Sepulveda	5	04-Sep-26	14-Sep-26	266	-86						
CON-18690	S2 - D1-F1 - FW - Install Transverse FW Beams Over SB Sepulveda & Median	2	14-Sep-26	15-Sep-26	269	-86						
CON-18700	S2 - D1-F1 - FW - Install Grillage/Bents/Bent Caps/Posts E Side Of Sepulveda	5	14-Sep-26	18-Sep-26	266	-86						
CON-18900	S2 - D1-F1 - FW - Install Transverse FW Beams Over NB Sepulveda & Median	2	21-Sep-26	22-Sep-26	266	-86						
CON-41330	S2 - D1-F1 - FW - Remove Falsework Over NB Sepulveda	2	23-Mar-27	24-Mar-27	322							
CON-41340	S2 - D1-F1 - FW - Remove Falsework Over SB Sepulveda inc Temp Bar Placement	4	25-Mar-27	30-Mar-27	322							
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | Sup | Soil & Sols												
CON-18800	S2 - D1-F1 - S&S - Install Soffit & Safety Rail Span 2 Over SB Sepulveda	5	16-Sep-26	25-Sep-26	259	-86						
CON-19020	S2 - D1-F1 - S&S - Install Soffit & Safety Rail Span 3 Over NB Sepulveda	4	23-Sep-26	28-Sep-26	256	-86						
CON-19110	S2 - D1-F1 - S&S - Form Exterior Girder & OH Span 3	3	28-Sep-26	30-Sep-26	269	-86						
CON-19140	S2 - D1-F1 - S&S - Form Exterior Girder & OH Spans 1-2	5	29-Sep-26	08-Oct-26	258	-86						
CON-19200	S2 - D1-F1 - S&S - Place Soffit Rebar	6	08-Oct-26	15-Oct-26	258	-93						
CON-19250	S2 - D1-F1 - S&S - Place Stem Rebar	8	12-Oct-26	21-Oct-26	256	-93						
CON-19320	S2 - D1-F1 - S&S - Install PT Ducts	4	16-Oct-26	21-Oct-26	256	-90						
CON-19410	S2 - D1-F1 - S&S - Form Interior Girder & Walkways	18	22-Oct-26	17-Nov-26	266	-103						
CON-19540	S2 - D1-F1 - S&S - Form Diaphragms & Blockouts	8	12-Nov-26	23-Nov-26	266	-105						
CON-19850	S2 - D1-F1 - S&S - Place Soffit & Stem Concrete	2	24-Nov-26	25-Nov-26	266	-21						
CON-19870	S2 - D1-F1 - S&S - Cure Soffit & Stem Concrete	7	26-Nov-26	02-Dec-26	467	-131						
CON-19880	S2 - D1-F1 - S&S - Strip Interior Girder Forms & Walkways	11	01-Dec-26	17-Dec-26	266	-98						
CON-19950	S2 - D1-F1 - S&S - Strip Diaphragms	7	10-Dec-26	28-Dec-26	266	-98						
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | Sup | Deck												
CON-19990	S2 - D1-F1 - DECK - Form Lost Deck	13	29-Dec-26	15-Jan-27	266	-96						
CON-20190	S2 - D1-F1 - DECK - Form EOD	11	18-Jan-27	01-Feb-27	266	-96						
CON-20170	S2 - D1-F1 - DECK - Install Screenshot Rails & Run-Offs	14	19-Jan-27	05-Feb-27	267	-96						
CON-20310	S2 - D1-F1 - DECK - Place Deck Rebar	3	02-Feb-27	09-Feb-27	266	-96						
CON-20330	S2 - D1-F1 - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	08-Feb-27	08-Feb-27	267	-96						
CON-20370	S2 - D1-F1 - DECK - Dry-run Bridge Finishing Machine	1	10-Feb-27	10-Feb-27	266	-96						
CON-20380	S2 - D1-F1 - DECK - Place Bridge Deck Concrete	1	11-Feb-27	11-Feb-27	268	-96						
CON-20390	S2 - D1-F1 - DECK - Cure Bridge Deck Concrete	7	12-Feb-27	18-Feb-27	397	-147						
CON-20400	S2 - D1-F1 - DECK - Strip Screenshot Rails & EOD	3	19-Feb-27	23-Feb-27	267	-100						
CON-20411	S2 - D1-F1 - DECK - Strip Ext Girder & OH	12	23-Feb-27	10-Mar-27	267	-113						
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | Sup | PT & B/W												
CON-48421	S2 - D1-F1 - PT - Install PT Strands	4	05-Mar-27	10-Mar-27	267							
CON-48431	S2 - D1-F1 - PT - Stress & Lock-off	3	11-Mar-27	15-Mar-27	267							
CON-48441	S2 - D1-F1 - PT - Grout PT Ducts	2	16-Mar-27	17-Mar-27	267							
CON-48451	S2 - D1-F1 - PT - F/P/S PT Blockouts	3	18-Mar-27	22-Mar-27	267							
Const | St 2 | Sep Access | Seg D | Bridge Sta 18+62 to Sta 24+97 | Fr D1-F1 | Sup | BW @ D1-A1												
CON-48591	S2 - A-F8 - PT - Place Backwall Rebar D1-A1	1	23-Mar-27	23-Mar-27	267							
CON-48601	S2 - A-F8 - PT - Form 2S Backwall D1-A1	1	24-Mar-27	24-Mar-27	267							
CON-48611	S2 - A-F8 - PT - Place Backwall Concrete D1-A1	1	25-Mar-27	25-Mar-27	267							
CON-48621	S2 - A-F8 - PT - Cure Backwall Concrete D1-A1	7	26-Mar-27	01-Apr-27	397							
CON-48631	S2 - A-F8 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal D1-A1	1	02-Apr-27	02-Apr-27	267							

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
 A/TMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
 57 of 128

SKANSKA | FLATIRON



Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
CON-12430	S2 - Wall D-4 - Excavate for Footing Section 1		1-23-Sep-26	23-Sep-26	377	-81							
CON-12470	S2 - Wall D-4 - FRP Footing Section 1		3-24-Sep-26	28-Sep-26	377	-81							
CON-12510	S2 - Wall D-4 - FRP Panels Section 1		6-29-Sep-26	06-Oct-26	398	-81							
CON-12550	S2 - Wall D-4 - Final Cure Section 1		1-07-Oct-26	07-Oct-26	581	-117							
CON-12590	S2 - Wall D-4 - Strip Panels Section 1		2-08-Oct-26	09-Oct-26	386	-81							
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 24+97 to 28+23 | Wall D-4 | Section 2			14-24-Sep-26	13-Oct-26	384	-80							
CON-12440	S2 - Wall D-4 - Excavate for Footing Section 2		1-24-Sep-26	24-Sep-26	379	-81							
CON-12480	S2 - Wall D-4 - FRP Footing Section 2		3-26-Sep-26	01-Oct-26	377	-81							
CON-12520	S2 - Wall D-4 - FRP Panels Section 2		6-02-Oct-26	08-Oct-26	383	-81							
CON-12560	S2 - Wall D-4 - Final Cure Section 2		1-10-Oct-26	10-Oct-26	578	-115							
CON-12600	S2 - Wall D-4 - Strip Panels Section 2		2-12-Oct-26	13-Oct-26	384	-80							
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 24+97 to 28+23 | Wall D-4 | Section 3			17-25-Sep-26	16-Oct-26	380	-82							
CON-12450	S2 - Wall D-4 - Excavate for Footing Section 3		1-25-Sep-26	25-Sep-26	381	-81							
CON-12490	S2 - Wall D-4 - FRP Footing Section 3		3-02-Oct-26	06-Oct-26	377	-81							
CON-12530	S2 - Wall D-4 - FRP Panels Section 3		6-07-Oct-26	14-Oct-26	380	-81							
CON-12570	S2 - Wall D-4 - Final Cure Section 3		1-15-Oct-26	15-Oct-26	573	-117							
CON-12610	S2 - Wall D-4 - Strip Panels Section 3		2-16-Oct-26	19-Oct-26	380	-82							
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 24+97 to 28+23 | Wall D-4 | Section 4			19-29-Sep-26	18-Oct-26	377	-81							
CON-12460	S2 - Wall D-4 - Excavate for Footing Section 4		1-28-Sep-26	28-Sep-26	383	-81							
CON-12500	S2 - Wall D-4 - FRP Footing Section 4		3-07-Oct-26	09-Oct-26	377	-81							
CON-12540	S2 - Wall D-4 - FRP Panels Section 4		6-12-Oct-26	19-Oct-26	377	-81							
CON-12580	S2 - Wall D-4 - Final Cure Section 4		1-20-Oct-26	20-Oct-26	568	-117							
CON-12620	S2 - Wall D-4 - Strip Panels Section 4		2-21-Oct-26	22-Oct-26	377	-81							
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 24+97 to 28+23 | Wall D-4 | Finishes			5-23-Oct-26	28-Oct-26	377	-81							
CON-14400	S2 - Wall D-4 - Surface Finish Front Face / Install Arch Finishes		5-23-Oct-26	29-Oct-26	377	-81							
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 24+97 to 28+23 | Rdwy Section			48-06-Apr-27	14-Jun-27	278	-180							
CON-14540	S2 - D 24+97 to 28+23 - Place, Contour & Grade Wat BF & Ramp Embankment		23-06-Apr-27	08-May-27	278	-180							
CON-14550	S2 - D 24+97 to 28+23 - Install Drainage Pipe & Appurtenances		5-07-May-27	13-May-27	278	-180							
CON-14560	S2 - D 24+97 to 28+23 - Install Drainage Boxes & Appurtenances		10-12-May-27	25-May-27	278	-180							
CON-14700	S2 - D 24+97 to 28+23 - Fine Grade Subgrade		3-28-May-27	28-May-27	278	-180							
CON-14670	S2 - D 24+97 to 28+23 - FRP Traffic Barrier		5-01-Jun-27	07-Jun-27	278	-180							
CON-14680	S2 - D 24+97 to 28+23 - Place & Fine Grade Agg Base		4-08-Jun-27	11-Jun-27	278	-180							
CON-14690	S2 - D 24+97 to 28+23 - Place HMA Pavement		1-14-Jun-27	14-Jun-27	278	-180							
Const | St 2 | Sep Access | Seg D | At Grade Sta 28+23 to Sta 30+21			44-08-Apr-27	07-May-27	283	-180							
CON-31150	S2 - D 28+23 to 30+21 - Remove Pavements & Hardscapes		4-08-Apr-27	08-Apr-27	283	-180							
CON-31160	S2 - D 28+23 to 30+21 - Perform Roadway Excavation		4-12-Apr-27	15-Apr-27	283	-180							
CON-31170	S2 - D 28+23 to 30+21 - Install Storm Drainage & Appurtenances		20-16-Apr-27	13-May-27	283	-180							
CON-31180	S2 - D 28+23 to 30+21 - Grade for Flatwork & Barriers		8-14-May-27	18-May-27	283	-180							
CON-31190	S2 - D 28+23 to 30+21 - Place Flatwork & Barriers		10-19-May-27	02-Jun-27	283	-180							
CON-31200	S2 - D 28+23 to 30+21 - Prep Subgrade & Place Agg Base		2-03-Jun-27	04-Jun-27	283	-180							
CON-31210	S2 - D 28+23 to 30+21 - Place Pavement		1-07-Jun-27	07-Jun-27	283	-180							
Const | St 2 | Sep Access | Seg D | Retained Fill Sta 30+21 to Sta 34+90			194-30-Mar-27	05-Oct-27	188	-229							

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Critical Remaining Work
 Milestone

Summary

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
59 of 128

SKANSKA | **FLATIRON**

Activity ID	Activity Name	Remaining Duration	Start	Finish	IF	Var-BL	2025	2026	2027	2028	2029	2030
	Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5	129	05-Apr-27	05-Oct-27	198	-283						
	Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | CIDH		05-Apr-27	23-Aug-27	198	-282						
CON-11380	S2 - Wall D-5 - Prep Work Pad for CIDH / Remove Ex Pymnts	4	05-Apr-27	08-Apr-27	240	-240						
CON-11390	S2 - Wall D-5 - Install CIDH Shafts	48	08-Jun-27	16-Aug-27	198	-282						
CON-11400	S2 - Wall D-5 - Final Cure CIDH Shafts	7	17-Aug-27	23-Aug-27	297	-419						
	Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | Section 1	13	24-Aug-27	10-Sep-27	210	-282						
CON-11410	S2 - Wall D-5 - Excavate for Footing Section 1	1	24-Aug-27	24-Aug-27	198	-282						
CON-11460	S2 - Wall D-5 - FRP Footing Section 1	3	25-Aug-27	27-Aug-27	198	-282						
CON-11510	S2 - Wall D-5 - FRP Panels Section 1	6	30-Aug-27	07-Sep-27	210	-282						
CON-11560	S2 - Wall D-5 - Final Cure Section 1	4	08-Sep-27	08-Sep-27	315	-419						
CON-11610	S2 - Wall D-5 - Strip Panels Section 1	2	09-Sep-27	10-Sep-27	210	-282						
	Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | Section 2	14	25-Aug-27	14-Sep-27	208	-281						
CON-11420	S2 - Wall D-5 - Excavate for Footing Section 2	1	25-Aug-27	25-Aug-27	200	-282						
CON-11470	S2 - Wall D-5 - FRP Footing Section 2	3	30-Aug-27	01-Sep-27	198	-282						
CON-11520	S2 - Wall D-5 - FRP Panels Section 2	6	02-Sep-27	10-Sep-27	207	-282						
CON-11570	S2 - Wall D-5 - Final Cure Section 2	1	11-Sep-27	11-Sep-27	312	-417						
CON-11620	S2 - Wall D-5 - Strip Panels Section 2	2	13-Sep-27	14-Sep-27	208	-281						
	Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | Section 3	17	25-Aug-27	21-Sep-27	204	-282						
CON-11430	S2 - Wall D-5 - Excavate for Footing Section 3	1	26-Aug-27	26-Aug-27	202	-282						
CON-11480	S2 - Wall D-5 - FRP Footing Section 3	3	02-Sep-27	07-Sep-27	198	-282						
CON-11530	S2 - Wall D-5 - FRP Panels Section 3	6	08-Sep-27	15-Sep-27	204	-282						
CON-11580	S2 - Wall D-5 - Final Cure Section 3	1	16-Sep-27	16-Sep-27	307	-419						
CON-11630	S2 - Wall D-5 - Strip Panels Section 3	2	17-Sep-27	20-Sep-27	204	-282						
	Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | Section 4	18	27-Aug-27	23-Sep-27	204	-282						
CON-11440	S2 - Wall D-5 - Excavate for Footing Section 4	1	27-Aug-27	27-Aug-27	204	-282						
CON-11490	S2 - Wall D-5 - FRP Footing Section 4	3	08-Sep-27	10-Sep-27	198	-282						
CON-11540	S2 - Wall D-5 - FRP Panels Section 4	6	13-Sep-27	20-Sep-27	201	-282						
CON-11590	S2 - Wall D-5 - Final Cure Section 4	1	21-Sep-27	21-Sep-27	302	-419						
CON-11640	S2 - Wall D-5 - Strip Panels Section 4	2	22-Sep-27	23-Sep-27	201	-282						
	Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | Section 5	21	10-Aug-27	18-Sep-27	198	-283						
CON-11450	S2 - Wall D-5 - Excavate for Footing Section 5	1	30-Aug-27	30-Aug-27	205	-282						
CON-11500	S2 - Wall D-5 - FRP Footing Section 5	3	13-Sep-27	15-Sep-27	198	-282						
CON-11550	S2 - Wall D-5 - FRP Panels Section 5	6	16-Sep-27	23-Sep-27	198	-282						
CON-11600	S2 - Wall D-5 - Final Cure Section 5	1	24-Sep-27	24-Sep-27	299	-419						
CON-11650	S2 - Wall D-5 - Strip Panels Section 5	2	27-Sep-27	28-Sep-27	198	-283						
	Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-5 | Section 6	13				-282						
CON-12630	S2 - Wall D-5 - Excavate for Footing Section 6	1	31-Aug-27	31-Aug-27	205	-282						
CON-12640	S2 - Wall D-5 - FRP Footing Section 6	3	01-Sep-27	03-Sep-27	205	-282						
CON-12650	S2 - Wall D-5 - FRP Panels Section 6	6	07-Sep-27	14-Sep-27	205	-282						
CON-12660	S2 - Wall D-5 - Final Cure Section 6	1	15-Sep-27	16-Sep-27	308	-419						
CON-12670	S2 - Wall D-5 - Strip Panels Section 6	2	16-Sep-27	17-Sep-27	205	-282						
	Const St 2 Sep Access Seg D Ret Fill Sta 30+21 to Sta 34+90 Wall D-5 Finishes	5	29-Sep-27	05-Oct-27	198	-283						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

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■ Actual Work
■ Remaining Work
■ Critical Remaining Work
◆ Milestone

Summary

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
60 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TP	Var-BL	2025	2026	2027	2028	2029	2030
CON-14370	S2 - Wall D-5 - Surface Finish Front Face / Install Arch Finishes	5	29-Sep-27	05-Oct-27	198	-283						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6		84	30-Mar-27	27-Jul-27	200	-227						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | CIDH		55	30-Jun-27		190	-230						
CON-12680	S2 - Wall D-6 - Prep Work Pad for CIDH / Remove Ex Pmnns	4	30-Mar-27	03-Apr-27	198	-236						
CON-12690	S2 - Wall D-6 - Install CIDH Shafts	46	05-Apr-27	08-Jun-27	198	-236						
CON-12700	S2 - Wall D-6 - Final Cure CIDH Shafts	7	08-Jun-27	15-Jun-27	300	-354						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | Section 1		10	16-Jun-27	02-Jul-27	211	-228						
CON-12710	S2 - Wall D-6 - Excavate for Footing Section 1	1	16-Jun-27	16-Jun-27	198	-228						
CON-12760	S2 - Wall D-6 - FRP Footing Section 1	3	17-Jun-27	21-Jun-27	199	-228						
CON-12810	S2 - Wall D-6 - FRP Panels Section 1	3	22-Jun-27	28-Jun-27	211	-228						
CON-12860	S2 - Wall D-6 - Final Cure Section 1	1	30-Jun-27	30-Jun-27	318	-341						
CON-12910	S2 - Wall D-6 - Strip Panels Section 1	2	01-Jul-27	02-Jul-27	211	-228						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | Section 2		11	17-Jun-27	07-Jul-27	209	-227						
CON-12720	S2 - Wall D-6 - Excavate for Footing Section 2	1	17-Jun-27	17-Jun-27	201	-228						
CON-12770	S2 - Wall D-6 - FRP Footing Section 2	3	22-Jun-27	24-Jun-27	199	-228						
CON-12820	S2 - Wall D-6 - FRP Panels Section 2	5	25-Jun-27	02-Jul-27	208	-228						
CON-12870	S2 - Wall D-6 - Final Cure Section 2	1	03-Jul-27	03-Jul-27	313	-339						
CON-12920	S2 - Wall D-6 - Strip Panels Section 2	2	06-Jul-27	07-Jul-27	209	-227						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | Section 3		17	18-Jun-27	13-Jul-27	205	-229						
CON-12730	S2 - Wall D-6 - Excavate for Footing Section 3	1	18-Jun-27	18-Jun-27	203	-228						
CON-12780	S2 - Wall D-6 - FRP Footing Section 3	3	25-Jun-27	29-Jun-27	198	-228						
CON-12830	S2 - Wall D-6 - FRP Panels Section 3	6	30-Jun-27	06-Jul-27	205	-228						
CON-12880	S2 - Wall D-6 - Final Cure Section 3	1	08-Jul-27	08-Jul-27	307	-342						
CON-12930	S2 - Wall D-6 - Strip Panels Section 3	2	12-Jul-27	13-Jul-27	205	-229						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | Section 4		19	21-Jun-27	16-Jul-27	202	-228						
CON-12740	S2 - Wall D-6 - Excavate for Footing Section 4	1	21-Jun-27	21-Jun-27	205	-228						
CON-12790	S2 - Wall D-6 - FRP Footing Section 4	3	30-Jun-27	02-Jul-27	199	-228						
CON-12840	S2 - Wall D-6 - FRP Panels Section 4	6	06-Jul-27	13-Jul-27	202	-228						
CON-12890	S2 - Wall D-6 - Final Cure Section 4	1	14-Jul-27	14-Jul-27	302	-342						
CON-12940	S2 - Wall D-6 - Strip Panels Section 4	2	16-Jul-27	16-Jul-27	202	-228						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | Section 5		20	22-Jun-27	20-Jul-27	200	-227						
CON-12750	S2 - Wall D-6 - Excavate for Footing Section 5	1	22-Jun-27	22-Jun-27	207	-228						
CON-12800	S2 - Wall D-6 - FRP Footing Section 5	3	06-Jul-27	08-Jul-27	198	-228						
CON-12850	S2 - Wall D-6 - FRP Panels Section 5	6	09-Jul-27	16-Jul-27	199	-228						
CON-12900	S2 - Wall D-6 - Final Cure Section 5	1	17-Jul-27	17-Jul-27	298	-340						
CON-12950	S2 - Wall D-6 - Strip Panels Section 5	2	19-Jul-27	20-Jul-27	200	-227						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Wall D-6 | Finishes		5	21-Jul-27	27-Jul-27	200	-227						
CON-14380	S2 - Wall D-6 - Surface Finish Front Face / Install Arch Finishes	5	21-Jul-27	27-Jul-27	200	-227						
Const | St 2 | Sep Access | Seg D | Ret Fill Sta 30+21 to Sta 34+90 | Rdwy Section		50	28-Jul-27	06-Oct-27	198	-227						
CON-14570	S2 - D 13+98 to 18+62 - Place, Contour & Grade Wall BF & Ramp Embankment	18	28-Jul-27	23-Aug-27	200	-227						
CON-14580	S2 - D 13+98 to 18+62 - Install Drainage Pipe & Appurtenances	5	24-Aug-27	30-Aug-27	200	-227						
CON-14590	S2 - D 13+98 to 18+62 - Install Drainage Boxes & Appurtenances	10	27-Aug-27	10-Sep-27	200	-227						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Critical Remaining Work
 Milestone

Summary

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
61 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	Var	SL	2025	2026	2027	2028	2029	2030
CON-14530	S2 - D 13+98 to 18+62 - Fine Grade Subgrade	3	13-Sep-27	15-Sep-27	200	-227						
CON-14500	S2 - D 13+98 to 18+62 - FRP Traffic Barrier	5	16-Sep-27	23-Sep-27	200	-227						
CON-14510	S2 - D 13+98 to 18+62 - Place & Fine Grade Agg Base	8	24-Sep-27	01-Oct-27	200	-227						
CON-14520	S2 - D 13+98 to 18+62 - Place HMA Pavement	1	08-Oct-27	06-Oct-27	198	-229						
Const|St2|Sep Access|Seg D|Bridge Sta 34+90 to Sta 52+06		401	02-Mar-26	08-Oct-27	203	57						
Const|St2|Sep Access|Seg D|Bridge Sta 34+90 to Sta 52+06|Fr D2-F1		396	02-Mar-26	01-Oct-27	208	-161						
Const|St2|Sep Access|Seg D|Bridge Sta 34+90 to Sta 52+06|Fr D2-F1|F & S		298	02-Mar-26	13-May-27	269	-166						
Const|St2|Sep Access|Seg D|Bridge Sta 34+90 to Sta 52+06|Fr D2-F1|F & S|Abut D2-A1		298	02-Mar-26	13-May-27	269	-166						
CON-26890	S2 - D2-F1 - D2-A1 - Prep Work Pad For CIDH	1	02-Mar-26	02-Mar-26	388	-11						
CON-26740	S2 - D2-F1 - D2-A1 - Install CIDH Shaft(s)	7	03-Mar-26	11-Mar-26	388	-11						
CON-26730	S2 - D2-F1 - D2-A1 - Install SOE/Excavate Footing	4	12-Mar-26	17-Mar-26	388	-11						
CON-26880	S2 - D2-F1 - D2-A1 - Cure CIDH	7	12-Mar-26	18-Mar-26	581	-15						
CON-26870	S2 - D2-F1 - D2-A1 - Prep CIDH For Footing Construction	3	18-Mar-26	20-Mar-26	388	-11						
CON-26750	S2 - D2-F1 - D2-A1 - Form Footing/Dowel Template	3	23-Mar-26	25-Mar-26	388	-11						
CON-26760	S2 - D2-F1 - D2-A1 - Place Rebar	3	28-Mar-26	30-Mar-26	388	-11						
CON-26770	S2 - D2-F1 - D2-A1 - Place Footing Concrete	1	31-Mar-26	31-Mar-26	388	-11						
CON-26780	S2 - D2-F1 - D2-A1 - Cure Footing Concrete	7	01-Apr-26	07-Apr-26	578	-16						
CON-26790	S2 - D2-F1 - D2-A1 - Strip Footing Forms/Dowel Template	1	01-Apr-26	01-Apr-26	388	-11						
CON-26800	S2 - D2-F1 - D2-A1 - Blast/Prep For Stems & Wings	1	02-Apr-26	02-Apr-26	388	-11						
CON-26810	S2 - D2-F1 - D2-A1 - Form 1S Stems/Wings/Backwall	3	03-Apr-26	07-Apr-26	388	-11						
CON-26820	S2 - D2-F1 - D2-A1 - Place Stem & Wing Rebar	3	08-Apr-26	10-Apr-26	388	-11						
CON-26830	S2 - D2-F1 - D2-A1 - Form 2S Stems & Wings	2	13-Apr-26	14-Apr-26	388	-11						
CON-26840	S2 - D2-F1 - D2-A1 - Place Stem & Wing Concrete	1	15-Apr-26	15-Apr-26	388	-11						
CON-26850	S2 - D2-F1 - D2-A1 - Cure Stem & Wing Concrete	7	16-Apr-26	22-Apr-26	571	-15						
CON-26860	S2 - D2-F1 - D2-A1 - Strip Stem & Wing Forms / Rough Surface Finish	2	23-Apr-26	24-Apr-26	387	-11						
CON-26920	S2 - D2-F1 - D2-A1 - Backfill	1	27-Apr-26	27-Apr-26	541	-11						
CON-15240	S2 - Br D2 - FRP Approach Slab D2-A1	5	07-May-27	13-May-27	289	-180						
Const|St2|Sep Access|Seg D|Bridge Sta 34+90 to Sta 52+06|Fr D2-F1|F & S|Bent D2-B2						18						
Const|St2|Sep Access|Seg D|Sta 34+90 to Sta 52+06|Fr D2-F1|F & S|Bent D2-B2|D2-B2L						-22						
CON-19370	S2 - D2-F1 - D2-B2L - Install CIDH Shaft(s)	4	15-Sep-26	18-Sep-26	244	-21						
CON-19440	S2 - D2-F1 - D2-B2L - Cure Shaft	7	19-Sep-26	25-Sep-26	398	-30						
CON-19480	S2 - D2-F1 - D2-B2L - Prep Transition Zone/Set Column Cage & Guy	4	21-Sep-26	24-Sep-26	269	-21						
CON-19550	S2 - D2-F1 - D2-B2L - Place Transition Zone Concrete	1	28-Sep-26	28-Sep-26	268	-21						
CON-19560	S2 - D2-F1 - D2-B2L - Cure Transition Zone Concrete	7	29-Sep-26	05-Oct-26	398	-32						
CON-19580	S2 - D2-F1 - D2-B2L - Form Column	3	29-Sep-26	01-Oct-26	268	-21						
CON-19620	S2 - D2-F1 - D2-B2L - Connect Thermal Control System	1	02-Oct-26	02-Oct-26	269	-21						
CON-19680	S2 - D2-F1 - D2-B2L - Place Column Concrete	1	06-Oct-26	06-Oct-26	268	-21						
CON-19720	S2 - D2-F1 - D2-B2L - Cure Column Concrete	7	07-Oct-26	13-Oct-26	398	-32						
CON-19730	S2 - D2-F1 - D2-B2L - Strip Column Forms 1 Day Minimum Removal	1	14-Oct-26	14-Oct-26	267	-22						
Const|St2|Sep Access|Seg D|Sta 34+90 to Sta 52+06|Fr D2-F1|F & S|Bent D2-B2|D2-B2R		22	06-Sep-26	08-Oct-26	271	-14						
CON-19490	S2 - D2-F1 - D2-B2R - Install CIDH Shaft(s)	4	09-Sep-26	14-Sep-26	244	-13						
CON-19520	S2 - D2-F1 - D2-B2R - Cure Shaft	7	15-Sep-26	21-Sep-26	402	-20						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Success

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
62 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	IF Var - BL	2025	2026	2027	2028	2029	2030
CON-28240	S2 - D2-F1 - S&S - Form Diaphragms & Blockouts	7	29-Jan-27	08-Feb-27	259	-33					
CON-28150	S2 - D2-F1 - S&S - Place Soffit & Stem Concrete	2	08-Feb-27	10-Feb-27	259	-33					
CON-28150	S2 - D2-F1 - S&S - Cure Soffit & Stem Concrete	7	11-Feb-27	17-Feb-27	391	-55					
CON-28170	S2 - D2-F1 - S&S - Strip Interior Girder Forms & Walkways	6	11-Feb-27	19-Feb-27	259	-33					
CON-28180	S2 - D2-F1 - S&S - Strip Diaphragms	2	22-Feb-27	23-Feb-27	259	-33					
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F1 | Sup | Deck		32	24-Feb-27	08-Apr-27	259	-38					
CON-28250	S2 - D2-F1 - DECK - Form Lost Deck	8	24-Feb-27	05-Mar-27	259	-31					
CON-28270	S2 - D2-F1 - DECK - Form EOD	4	08-Mar-27	11-Mar-27	259	-31					
CON-28280	S2 - D2-F1 - DECK - Install Screed Rails & Run-Offs	5	09-Mar-27	15-Mar-27	262	-31					
CON-28260	S2 - D2-F1 - DECK - Place Deck Rebar	6	12-Mar-27	18-Mar-27	259	-31					
CON-28290	S2 - D2-F1 - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	16-Mar-27	16-Mar-27	262	-31					
CON-28320	S2 - D2-F1 - DECK - Dry-run Bridge Finishing Machine	1	22-Mar-27	22-Mar-27	259	-31					
CON-28300	S2 - D2-F1 - DECK - Place Bridge Deck Concrete	1	23-Mar-27	23-Mar-27	259	-31					
CON-28310	S2 - D2-F1 - DECK - Cure Bridge Deck Concrete	7	24-Mar-27	30-Mar-27	365	-43					
CON-28330	S2 - D2-F1 - DECK - Strip Screed Rails & EOD	3	31-Mar-27	02-Apr-27	259	-36					
CON-48761	S2 - D2-F1 - DECK - Strip Exterior Girder & OH Forms	5	02-Apr-27	08-Apr-27	259						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F1 | Sup | PT					59						
CON-48731	S2 - D2-F1 - PT - Install PT Strands	4	05-Apr-27	08-Apr-27	259						
CON-48741	S2 - D2-F1 - PT - Stress & Lock-off	3	09-Apr-27	13-Apr-27	259						
CON-48751	S2 - D2-F1 - PT - Grout PT Ducts	2	14-Apr-27	15-Apr-27	259						
CON-48771	S2 - D2-F1 - PT - F/P/S PT Blockouts	3	16-Apr-27	20-Apr-27	259						
CON-48901	S2 - D2-F1 - PT - Place Backwall Rebar D2-A1	1	21-Apr-27	21-Apr-27	259						
CON-48911	S2 - D2-F1 - PT - Form 2S Backwall D2-A1	1	22-Apr-27	22-Apr-27	259						
CON-48921	S2 - D2-F1 - PT - Place Backwall Concrete D2-A1	1	23-Apr-27	23-Apr-27	259						
CON-48931	S2 - D2-F1 - PT - Cure Backwall Concrete D2-A1	7	24-Apr-27	30-Apr-27	367						
CON-48941	S2 - D2-F1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal D2-A1	1	03-May-27	03-May-27	259						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2		351	01-May-26	08-Oct-27	203	1					
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a		348	01-May-26	01-Oct-27	203	-194					
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | F & S		125	01-May-26	04-Nov-26	334	-49					
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | F & S | Bent D2-B4		25	01-Oct-26	04-Nov-26	334	-49					
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | F & S | Bent D2-B4L		21	07-Oct-26	04-Nov-26	334	-53					
CON-17870	S2 - D2-F2 - D2-B4L - Install CIDH Shaft(s)	4	07-Oct-26	12-Oct-26	391	-53					
CON-18090	S2 - D2-F2 - D2-B4L - Cure Shaft	7	13-Oct-26	19-Oct-26	391	-76					
CON-18100	S2 - D2-F2 - D2-B4L - Prep Transition Zone/Set Column Cage & Guy	4	13-Oct-26	18-Oct-26	263	-53					
CON-18370	S2 - D2-F2 - D2-B4L - Place Transition Zone Concrete	1	20-Oct-26	20-Oct-26	262	-53					
CON-18450	S2 - D2-F2 - D2-B4L - Cure Transition Zone Concrete	7	21-Oct-26	27-Oct-26	391	-76					
CON-18460	S2 - D2-F2 - D2-B4L - Form Column	3	21-Oct-26	23-Oct-26	263	-53					
CON-18520	S2 - D2-F2 - D2-B4L - Connect Thermal Control System	1	26-Oct-26	26-Oct-26	263	-53					
CON-18720	S2 - D2-F2 - D2-B4L - Place Column Concrete	1	28-Oct-26	28-Oct-26	262	-53					
CON-18750	S2 - D2-F2 - D2-B4L - Cure Column Concrete	7	29-Oct-26	04-Nov-26	508	-76					
CON-18760	S2 - D2-F2 - D2-B4L - Strip Column Forms 1 Day Minimum Removal	1	29-Oct-26	29-Oct-26	262	-53					
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | F & S | Bent D2-B4R		21	01-Oct-26	28-Oct-26	338	-45					

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
 ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
 64 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TP	var - BL	202520262027202820292030											
							ONDJ	A	JJAS	NDJF	A	JJAS	NDJF	A	JJAS	NDJF	A	JJAS
CON-1810	S2 - D2-F2 - D2-B4R - Install CIDH Shaft(s)	4	01-Oct-26	06-Oct-26	244	-45												
CON-18300	S2 - D2-F2 - D2-B4R - Cure Shaft	7	07-Oct-26	13-Oct-26	397	-64												
CON-18310	S2 - D2-F2 - D2-B4R - Prep Transition Zone/Set Column Cage & Guy	4	07-Oct-26	12-Oct-26	267	-45												
CON-18660	S2 - D2-F2 - D2-B4R - Place Transition Zone Concrete	1	14-Oct-26	14-Oct-26	266	-45												
CON-18640	S2 - D2-F2 - D2-B4R - Cure Transition Zone Concrete	7	16-Oct-26	21-Oct-26	397	-64												
CON-18660	S2 - D2-F2 - D2-B4R - Form Column	3	18-Oct-26	19-Oct-26	267	-45												
CON-18770	S2 - D2-F2 - D2-B4R - Connect Thermal Control System	1	20-Oct-26	20-Oct-26	267	-45												
CON-18890	S2 - D2-F2 - D2-B4R - Place Column Concrete	1	22-Oct-26	22-Oct-26	266	-45												
CON-18920	S2 - D2-F2 - D2-B4R - Cure Column Concrete	7	23-Oct-26	29-Oct-26	516	-64												
CON-18930	S2 - D2-F2 - D2-B4R - Strip Column Forms 1 Day Minimum Removal	1	23-Oct-26	23-Oct-26	266	-45												
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | F & S | Bent D2-B5							24	11-May-26	12-Jun-26	435	-63							
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | F & S | Bent D2-B5L							20	15-May-26	12-Jun-26	435	-63							
CON-17100	S2 - D2-F2 - D2-B5L - Install CIDH Shaft(s)	4	15-May-26	20-May-26	0	-64												
CON-17210	S2 - D2-F2 - D2-B5L - Cure Shaft	7	21-May-26	27-May-26	536	-90												
CON-17220	S2 - D2-F2 - D2-B5L - Prep Transition Zone/Set Column Cage & Guy	4	21-May-26	27-May-26	363	-64												
CON-17380	S2 - D2-F2 - D2-B5L - Place Transition Zone Concrete	1	28-May-26	28-May-26	363	-63												
CON-17490	S2 - D2-F2 - D2-B5L - Cure Transition Zone Concrete	7	29-May-26	04-Jun-26	536	-90												
CON-17500	S2 - D2-F2 - D2-B5L - Form Column	3	29-May-26	02-Jun-26	364	-63												
CON-17580	S2 - D2-F2 - D2-B5L - Connect Thermal Control System	1	03-Jun-26	03-Jun-26	364	-63												
CON-17740	S2 - D2-F2 - D2-B5L - Place Column Concrete	1	05-Jun-26	05-Jun-26	363	-63												
CON-17800	S2 - D2-F2 - D2-B5L - Cure Column Concrete	7	06-Jun-26	12-Jun-26	654	-88												
CON-17810	S2 - D2-F2 - D2-B5L - Strip Column Forms 1 Day Minimum Removal	1	08-Jun-26	08-Jun-26	363	-63												
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | F & S | Bent D2-B5R							20	11-May-26	08-Jun-26	436	-64							
CON-17230	S2 - D2-F2 - D2-B5R - Install CIDH Shaft(s)	4	11-May-26	14-May-26	0	-64												
CON-17350	S2 - D2-F2 - D2-B5R - Cure Shaft	7	15-May-26	21-May-26	642	-91												
CON-17390	S2 - D2-F2 - D2-B5R - Prep Transition Zone/Set Column Cage & Guy	4	15-May-26	20-May-26	367	-64												
CON-17640	S2 - D2-F2 - D2-B5R - Place Transition Zone Concrete	1	22-May-26	22-May-26	366	-65												
CON-17660	S2 - D2-F2 - D2-B5R - Cure Transition Zone Concrete	7	23-May-26	29-May-26	542	-91												
CON-17670	S2 - D2-F2 - D2-B5R - Form Column	3	25-May-26	28-May-26	367	-65												
CON-17820	S2 - D2-F2 - D2-B5R - Connect Thermal Control System	1	29-May-26	29-May-26	367	-65												
CON-17990	S2 - D2-F2 - D2-B5R - Place Column Concrete	1	01-Jun-26	01-Jun-26	367	-64												
CON-18020	S2 - D2-F2 - D2-B5R - Cure Column Concrete	7	02-Jun-26	08-Jun-26	658	-91												
CON-18030	S2 - D2-F2 - D2-B5R - Strip Column Forms 1 Day Minimum Removal	1	02-Jun-26	02-Jun-26	367	-64												
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | Sup							-170	02-Feb-27	01-Oct-27	203	-194							
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | Sup | FW							170	01-Feb-27	01-Oct-27	203	-194							
CON-20420	S2 - D2-F2a - FW - Install Grillage/Bents/Bent Caps/Posts/Stringers	5	02-Feb-27	08-Feb-27	202	-109												
CON-48701	S2 - D2-F2a - FW - Remove Falsework	5	27-Sep-27	01-Oct-27	203													
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | Sup | Soil & S&S							109	01-Feb-27	27-Apr-27	257	-109							
CON-20430	S2 - D2-F2a - S&S - Install Soil & Safety Rail	11	09-Feb-27	24-Feb-27	235	-109												
CON-20480	S2 - D2-F2a - S&S - Form Exterior Girder & OH	11	25-Feb-27	11-Mar-27	235	-109												
CON-20490	S2 - D2-F2a - S&S - Place Soil Rebar	2	03-Mar-27	04-Mar-27	235	-109												
CON-20540	S2 - D2-F2a - S&S - Place Stem Rebar	5	05-Mar-27	11-Mar-27	235	-109												

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
Actual Level of Effort
Actual Work

Remaining Work
Critical Remaining Work
Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
55 of 128

SKANSKA | FLATIRON

Activity	Activity Name	Remaining Duration	Start	Finish	TF	Var - BL	2025	2026	2027	2028	2029	2030
							JAN	FEB	MAR	APR	MAY	JUN
CON-20580	S2 - D2-F2a - S&S - Install PT Ducts	4	10-Mar-27	15-Mar-27	235	-109						
CON-20580	S2 - D2-F2a - S&S - Form Interior Girder & Walkways	18	18-Mar-27	06-Apr-27	235	-109						
CON-20580	S2 - D2-F2a - S&S - Form Diaphragms & Blockouts	3	07-Apr-27	09-Apr-27	235	-109						
CON-20600	S2 - D2-F2a - S&S - Place Soffit & Stem Concrete	2	12-Apr-27	13-Apr-27	235	-109						
CON-20610	S2 - D2-F2a - S&S - Cure Soffit & Stem Concrete	7	14-Apr-27	20-Apr-27	390	-172						
CON-20620	S2 - D2-F2a - S&S - Strip Interior Girder Forms & Walkways	8	14-Apr-27	23-Apr-27	235	-109						
CON-20680	S2 - D2-F2a - S&S - Strip Diaphragms	2	26-Apr-27	27-Apr-27	235	-109						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2a | Sup | Deck												
CON-20670	S2 - D2-F2a - DECK - Form Lost Deck	10	28-Apr-27	11-May-27	235	-109						
CON-20700	S2 - D2-F2a - DECK - Form EOD	5	19-May-27	19-May-27	235	-109						
CON-20710	S2 - D2-F2a - DECK - Install Scribed Rails & Run-Offs	5	19-May-27	19-May-27	239	-109						
CON-20750	S2 - D2-F2a - DECK - Place Deck Rebar	8	19-May-27	26-May-27	235	-109						
CON-20760	S2 - D2-F2a - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	20-May-27	20-May-27	239	-109						
CON-20790	S2 - D2-F2a - DECK - Dry-run Bridge Finishing Machine	1	27-May-27	27-May-27	235	-109						
CON-20800	S2 - D2-F2a - DECK - Place Bridge Deck Concrete	1	28-May-27	28-May-27	235	-109						
CON-20810	S2 - D2-F2a - DECK - Cure Bridge Deck Concrete	7	29-May-27	04-Jun-27	353	-159						
CON-20820	S2 - D2-F2a - DECK - Strip Scribed Rails & EOD	2	07-Jun-27	08-Jun-27	238	-112						
CON-20830	S2 - D2-F2a - DECK - Strip C/J Bulkheads	1	09-Jun-27	09-Jun-27	236	-115						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b												
CON-20830	S2 - D2-F2b - DECK - Form Lost Deck	26	21-May-26	26-Jun-26	349	-48						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b | F & S												
CON-20830	S2 - D2-F2b - DECK - Form Lost Deck	26	21-May-26	26-Jun-26	349	-48						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b | F & S | Bent D2-B6												
CON-20830	S2 - D2-F2b - DECK - Form Lost Deck	22	21-May-26	22-Jun-26	353	-44						
CON-27930	S2 - D2-F2b - D2-B6L - Install CIDH Shaft(s)	4	21-May-26	27-May-26	0	-44						
CON-27940	S2 - D2-F2b - D2-B6L - Cure Shaft	7	28-May-26	03-Jun-26	522	-63						
CON-27950	S2 - D2-F2b - D2-B6L - Prep Transition Zone/Set Column Cage & Guy	4	28-May-26	02-Jun-26	355	-44						
CON-27960	S2 - D2-F2b - D2-B6L - Place Transition Zone Concrete	1	04-Jun-26	04-Jun-26	354	-44						
CON-27970	S2 - D2-F2b - D2-B6L - Cure Transition Zone Concrete	7	05-Jun-26	11-Jun-26	522	-63						
CON-27980	S2 - D2-F2b - D2-B6L - Form Column	3	05-Jun-26	08-Jun-26	354	-44						
CON-28020	S2 - D2-F2b - D2-B6L - Connect Thermal Control System	1	10-Jun-26	10-Jun-26	354	-44						
CON-27990	S2 - D2-F2b - D2-B6L - Place Column Concrete	1	12-Jun-26	12-Jun-26	353	-44						
CON-28000	S2 - D2-F2b - D2-B6L - Cure Column Concrete	7	13-Jun-26	19-Jun-26	522	-63						
CON-28010	S2 - D2-F2b - D2-B6L - Strip Column Forms 1 Day Minimum Removal	1	22-Jun-26	22-Jun-26	353	-44						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b | F & S | Bent D2-B6R												
CON-28030	S2 - D2-F2b - D2-B6R - Install CIDH Shaft(s)	4	28-May-26	02-Jun-26	0	-52						
CON-28040	S2 - D2-F2b - D2-B6R - Cure Shaft	7	03-Jun-26	09-Jun-26	518	-75						
CON-28050	S2 - D2-F2b - D2-B6R - Prep Transition Zone/Set Column Cage & Guy	4	03-Jun-26	08-Jun-26	351	-52						
CON-28060	S2 - D2-F2b - D2-B6R - Place Transition Zone Concrete	1	10-Jun-26	10-Jun-26	350	-52						
CON-28070	S2 - D2-F2b - D2-B6R - Cure Transition Zone Concrete	7	11-Jun-26	17-Jun-26	518	-75						
CON-28080	S2 - D2-F2b - D2-B6R - Form Column	3	11-Jun-26	15-Jun-26	350	-52						
CON-28120	S2 - D2-F2b - D2-B6R - Connect Thermal Control System	1	16-Jun-26	16-Jun-26	380	-52						
CON-28090	S2 - D2-F2b - D2-B6R - Place Column Concrete	1	18-Jun-26	18-Jun-26	349	-52						
CON-28100	S2 - D2-F2b - D2-B6R - Cure Column Concrete	7	19-Jun-26	26-Jun-26	518	-73						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
 ATMP Rdwy Imp | Baseline Schedule | Schematic Design RD - Update 16
 66 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
CON-28110	S2 - D2-F2b - D2-BER - Strip Column Forms 1 Day Minimum Removal	1	26-Jun-26	26-Jun-26	349	-52							
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b | Sup													
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b | Sup | FW					203	-100							
CON-28730	S2 - D2-F2b - FW - Install Grillage/Bents/Bent Caps/Posts/Stringers	5	09-Feb-27	15-Feb-27	202	65							
CON-48711	S2 - D2-F2b - FW - Remove Falsework	5	04-Oct-27	08-Oct-27	203								
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b | Sup | Soffit/Stem					232	65							
CON-28620	S2 - D2-F2b - S&S - Install Soffit & Safety Rail	15	17-Feb-27	09-Mar-27	202	65							
CON-28630	S2 - D2-F2b - S&S - Form Exterior Girder & OH	16	10-Mar-27	31-Mar-27	202	65							
CON-28650	S2 - D2-F2b - S&S - Place Soffit Rebar	3	16-Mar-27	25-Mar-27	202	65							
CON-28660	S2 - D2-F2b - S&S - Place Stem Rebar	3	26-Mar-27	06-Apr-27	202	65							
CON-28670	S2 - D2-F2b - S&S - Install PT Ducts	4	05-Apr-27	08-Apr-27	202	65							
CON-28640	S2 - D2-F2b - S&S - Form Interior Girder & Walkways	22	09-Apr-27	10-May-27	202	65							
CON-28710	S2 - D2-F2b - S&S - Form Diaphragms & Blockouts	3	11-May-27	13-May-27	202	65							
CON-28680	S2 - D2-F2b - S&S - Place Soffit & Stem Concrete	2	14-May-27	17-May-27	202	65							
CON-28690	S2 - D2-F2b - S&S - Cure Soffit & Stem Concrete	7	18-May-27	24-May-27	357	93							
CON-28700	S2 - D2-F2b - S&S - Strip Interior Girder Forms & Walkways	10	18-May-27	01-Jun-27	202	65							
CON-28720	S2 - D2-F2b - S&S - Strip Diaphragms	2	02-Jun-27	03-Jun-27	202	65							
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2b | Sup | Deck													
CON-28520	S2 - D2-F2b - DECK - Form Lost Deck	18	04-Jun-27	22-Jun-27	202	65							
CON-28540	S2 - D2-F2b - DECK - Form EOD	8	23-Jun-27	02-Jul-27	202	65							
CON-28550	S2 - D2-F2b - DECK - Install Screed Rails & Run-Offs	7	24-Jun-27	02-Jul-27	209	65							
CON-28530	S2 - D2-F2b - DECK - Place Deck Rebar	8	06-Jul-27	15-Jul-27	202	65							
CON-28560	S2 - D2-F2b - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	06-Jul-27	06-Jul-27	209	65							
CON-28580	S2 - D2-F2b - DECK - Dry-run Bridge Finishing Machine	1	16-Jul-27	16-Jul-27	202	65							
CON-28570	S2 - D2-F2b - DECK - Place Bridge Deck Concrete	1	19-Jul-27	19-Jul-27	202	65							
CON-28580	S2 - D2-F2b - DECK - Cure Bridge Deck Concrete	7	20-Jul-27	26-Jul-27	302	95							
CON-28600	S2 - D2-F2b - DECK - Strip Screed Rails & EOD	2	27-Jul-27	28-Jul-27	202	60							
Const | St 2 | Sep Access | Seg B | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F2 | Sep | PT					202	-145							
CON-20800	S2 - D2-F2 - PT - Strip Exterior Girder & OH Forms	8	29-Jul-27	05-Aug-27	202	-140							
CON-20840	S2 - D2-F2 - PT - Install PT Strands	4	02-Aug-27	05-Aug-27	202	-151							
CON-20880	S2 - D2-F2 - PT - Stress & Lock-off	3	06-Aug-27	10-Aug-27	202	-151							
CON-20890	S2 - D2-F2 - PT - Grout PT Ducts	2	11-Aug-27	12-Aug-27	202	-151							
CON-20910	S2 - D2-F2 - PT - F/P/S PT Blockouts	3	13-Aug-27	17-Aug-27	202	-145							
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3					210	-115							
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | F & S					420								
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | F & S | Bent D2-B7					28								
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4 | F & S | Bent D2-B7L					28								
CON-27530	S2 - D2-F3 - D2-B7L - Install C/DH Shaft(s)	4	26-Mar-26	31-Mar-26	0	8							
CON-27540	S2 - D2-F3 - D2-B7L - Cure Shaft	7	01-Apr-26	07-Apr-26	643	10							
CON-27550	S2 - D2-F3 - D2-B7L - Prep Transition Zone/Set Column Cage & Guy	4	01-Apr-26	06-Apr-26	428	8							
CON-27560	S2 - D2-F3 - D2-B7L - Place Transition Zone Concrete	1	08-Apr-26	08-Apr-26	428	8							
CON-27570	S2 - D2-F3 - D2-B7L - Cure Transition Zone Concrete	7	09-Apr-26	15-Apr-26	643	12							

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

■ Remaining Level of Effort ■ Remaining Work
■ Actual Level of Effort ■ Critical Remaining Work
■ Actual Work ◆ Milestone

→ Summary

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design RD - Update 16
67 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF var - BL	2025	2026	2027	2028	2029	2030
CON-48721	S2 - D2-F3 - FW - Remove Falsework	3	27-Sep-27	28-Sep-27	210						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | Sup | Soffit/Stems											
CON-28750	S2 - D2-F3 - S&S - Install Soffit & Safety Rail	9	02-Apr-27	14-Apr-27	203	-15					
CON-28800	S2 - D2-F3 - S&S - Form Exterior Girder & OH	7	12-Apr-27	20-Apr-27	203	-119					
CON-28810	S2 - D2-F3 - S&S - Place Soffit Rebar	4	21-Apr-27	26-Apr-27	203	-113					
CON-28820	S2 - D2-F3 - S&S - Place Stem Rebar	4	23-Apr-27	28-Apr-27	203	-105					
CON-28830	S2 - D2-F3 - S&S - Install PT Ducts	3	29-Apr-27	03-May-27	203	-103					
CON-28840	S2 - D2-F3 - S&S - Form Interior Girder & Walkways	16	04-May-27	20-May-27	203	-97					
CON-28850	S2 - D2-F3 - S&S - Form Diaphragms & Blockouts	8	25-May-27	02-Jun-27	203	-103					
CON-28750	S2 - D2-F3 - S&S - Place Soffit & Stem Concrete	2	08-Jun-27	09-Jun-27	203	-103					
CON-28770	S2 - D2-F3 - S&S - Cure Soffit & Stem Concrete	7	10-Jun-27	16-Jun-27	315	-147					
CON-28780	S2 - D2-F3 - S&S - Strip Interior Girder Forms & Walkways	6	10-Jun-27	17-Jun-27	203	-99					
CON-28790	S2 - D2-F3 - S&S - Strip Diaphragms	6	18-Jun-27	25-Jun-27	203	-103					
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | Sup | Deck											
CON-28860	S2 - D2-F3 - DECK - Form Lost Deck	7	28-Jun-27	07-Jul-27	203	-90					
CON-28880	S2 - D2-F3 - DECK - Form EOD	3	08-Jul-27	12-Jul-27	203	-77					
CON-28890	S2 - D2-F3 - DECK - Install Scaffolding & Run-Offs	4	09-Jul-27	14-Jul-27	204	-81					
CON-28870	S2 - D2-F3 - DECK - Place Deck Rebar	4	13-Jul-27	16-Jul-27	203	-71					
CON-28900	S2 - D2-F3 - DECK - Setup Bridge Finishing Machine & Work Bridges	1	15-Jul-27	15-Jul-27	204	-81					
CON-28930	S2 - D2-F3 - DECK - Dry-run Bridge Finishing Machine	1	19-Jul-27	19-Jul-27	203	-71					
CON-28910	S2 - D2-F3 - DECK - Place Bridge Deck Concrete	1	20-Jul-27	20-Jul-27	203	-71					
CON-28920	S2 - D2-F3 - DECK - Cure Bridge Deck Concrete	7	21-Jul-27	27-Jul-27	303	-100					
CON-28940	S2 - D2-F3 - DECK - Strip Scaffolding & EOD	2	28-Jul-27	29-Jul-27	203	-75					
CON-48671	S2 - D2-F3 - DECK - Strip Exterior Girder & OH Forms	4	30-Jul-27	04-Aug-27	203						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F3 | Sup | PT											
CON-48641	S2 - D2-F3 - PT - Install PT Strands	4	30-Jul-27	04-Aug-27	203						
CON-48651	S2 - D2-F3 - PT - Stress & Lock-off	3	05-Aug-27	08-Aug-27	203						
CON-48661	S2 - D2-F3 - PT - Grout PT Ducts	2	10-Aug-27	11-Aug-27	203						
CON-48681	S2 - D2-F3 - PT - FRP PT Blockouts	3	12-Aug-27	16-Aug-27	203						
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Hinges											
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Hinge D2-F1/D2-F2											
CON-20920	S2 - Br D2 - D2-F1/D2-F2 - FRP Hinge Lower Seat	10	18-Aug-27	31-Aug-27	202	-133					
CON-20930	S2 - Br D2 - D2-F1/D2-F2 - FRP Hinge Upper Seat	10	01-Sep-27	15-Sep-27	202	-133					
CON-20940	S2 - Br D2 - D2-F1/D2-F2 - Cure Hinges	10	16-Sep-27	25-Sep-27	305	-180					
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Hinge D2-F2/D2-F3											
CON-28430	S2 - Br D2 - D2-F2/D2-F3 - FRP Hinge Lower Seat	10	18-Aug-27	31-Aug-27	202	56					
CON-28410	S2 - Br D2 - D2-F2/D2-F3 - FRP Hinge Upper Seat	10	01-Sep-27	15-Sep-27	202	56					
CON-28420	S2 - Br D2 - D2-F2/D2-F3 - Cure Hinges	10	16-Sep-27	25-Sep-27	305	110					
Const | St 2 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Hinge D2-F3/D2-F4											
CON-40170	S2 - Br D2 - D2-F3/D2-F4 - FRP Hinge Lower Seat	10	17-Aug-27	30-Aug-27	226						
Const | St 2 | Sep Access | Seg E											
Const | St 2 | Sep Access | Seg E | At Grade Sta 8+76 to Sta 13+04											

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
 ATMP Rdwy Imp | Base/In Schedule | Schematic Design R0 - Update 16
 59 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
CON-49771	S2 - E 8+76 to 13+04 - Remove Pavements & Hardscapes		4 14-Jun-27	17-Jun-27	44								
CON-49781	S2 - E 8+76 to 13+04 - Install Storm Drainage & Appurtenances		12 18-Jun-27	06-Jul-27	44								
CON-49791	S2 - E 8+76 to 13+04 - Fine Grade Subgrade		3 07-Jul-27	09-Jul-27	44								
CON-49801	S2 - E 8+76 to 13+04 - Install Curb & Gutter		5 12-Jul-27	18-Jul-27	44								
CON-49811	S2 - E 8+76 to 13+04 - Install Street Lighting & OHS Foundations		3 20-Jul-27	22-Jul-27	44								
CON-49821	S2 - E 8+76 to 13+04 - Place & Fine Grade Agg Base		4 30-Jul-27	04-Aug-27	44								
CON-49831	S2 - E 8+76 to 13+04 - Place HMA Base Course		1 05-Aug-27	05-Aug-27	44								
CON-49841	S2 - E 8+76 to 13+04 - Install Street Lighting Fixtures & Appurtenances		3 06-Aug-27	10-Aug-27	44								
CON-49851	S2 - E 8+76 to 13+04 - Install DHSS & Signage		2 11-Aug-27	12-Aug-27	44								
Const | St 2 | Sep Access | Seg E | Retained Fill Sta 13+04 to Sta 17+50		126	13-Mar-26	09-Sep-26	565	207							
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2		73	13-Mar-26	24-Jun-26	618	260							
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Footing A		45	13-Mar-26	14-May-26	173	134							
CON-13190	S2 - Wall E-2 - Fig A - Prep Work Pad for CIDH / Remove Ex Pymnts		5 13-Mar-26	19-Mar-26	23	117							
CON-14430	S2 - Wall E-2 - Fig A - Install Isolation Casings		5 20-Mar-26	26-Mar-26	36	169							
CON-13200	S2 - Wall E-2 - Fig A - Install CIDH Shafts		5 24-Apr-26	30-Apr-26	18	121							
CON-13210	S2 - Wall E-2 - Fig A - Cure CIDH Shafts		7 01-May-26	07-May-26	244	174							
CON-14510	S2 - Wall E-2 - Fig A - Sandblast CIDH		1 01-May-26	01-May-26	182	123							
CON-13220	S2 - Wall E-2 - Fig A - Fine Grade for Footing		1 04-May-26	04-May-26	182	125							
CON-13270	S2 - Wall E-2 - Fig A - FRP Footing		4 08-May-26	13-May-26	159	121							
CON-14520	S2 - Wall E-2 - Fig A - Backfill to Top of Footing		1 14-May-26	14-May-26	173	122							
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Footing B		43	20-Mar-26	13-May-26	159	128							
CON-46960	S2 - Wall E-2 - Fig B - Prep Work Pad for CIDH / Remove Ex Pymnts		2 20-Mar-26	23-Mar-26	23								
CON-46970	S2 - Wall E-2 - Fig B - Install CIDH Shafts		16 02-Apr-26	23-Apr-26	16								
CON-46980	S2 - Wall E-2 - Fig B - Cure CIDH Shafts		7 24-Apr-26	30-Apr-26	257								
CON-46990	S2 - Wall E-2 - Fig B - Sandblast CIDH		1 24-Apr-26	24-Apr-26	169								
CON-13230	S2 - Wall E-2 - Fig B - Fine Grade		3 27-Apr-26	29-Apr-26	169	129							
CON-13280	S2 - Wall E-2 - Fig B - FRP Footing		3 14-May-26	18-May-26	159	121							
CON-14530	S2 - Wall E-2 - Fig B - Backfill to Top of Footing		1 18-May-26	18-May-26	159	128							
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Footing C		9	24-Mar-26	05-Apr-26	200	317							
CON-46930	S2 - Wall E-2 - Fig C - Excavate		2 24-Mar-26	25-Mar-26	200								
CON-46940	S2 - Wall E-2 - Fig C - Perform Soil Correction		2 26-Mar-26	27-Mar-26	200								
CON-46950	S2 - Wall E-2 - Fig C - Excavate Keyway & Fine Grade		1 28-Mar-26	28-Mar-26	302								
CON-13290	S2 - Wall E-2 - Fig C - FRP Footing		4 30-Mar-26	02-Apr-26	230	158							
CON-15180	S2 - Wall E-2 - Fig C - Backfill to Top of Footing		1 03-Apr-26	03-Apr-26	200	317							
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Section 1		11	18-May-26	27-May-26	73	121							
CON-13320	S2 - Wall E-2 - FRP Panels Section 1		4 15-May-26	20-May-26	173	122							
CON-13370	S2 - Wall E-2 - Cure Section 1		7 21-May-26	27-May-26	264	170							
CON-13420	S2 - Wall E-2 - Strip Panels Section 1		2 22-May-26	26-May-26	173	122							
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Section 2		11	20-May-26	04-Jun-26	159	118							
CON-13330	S2 - Wall E-2 - FRP Panels Section 2		6 20-May-26	28-May-26	159	120							
CON-13380	S2 - Wall E-2 - Cure Section 2		7 28-May-26	04-Jun-26	243	187							
CON-13430	S2 - Wall E-2 - Strip Panels Section 2		2 01-Jun-26	02-Jun-26	159	120							

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

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Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule, Schematic Design R0 - Update 16
70 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining	Start	Finish	Var	BL	2025	2026	2027	2028	2029	2030
		Durati					NOV	JAN	JUN	NOV	JAN	JUN
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Section 3		11	03-Jun-26	17-Jun-26	158	111						
CON-13340	S2 - Wall E-2 - FRP Panels Section 3	8	03-Jun-26	10-Jun-26	159	114						
CON-13390	S2 - Wall E-2 - Cure Section 3	7	11-Jun-26	17-Jun-26	243	*57						
CON-13440	S2 - Wall E-2 - Strip Panels Section 3	2	12-Jun-26	15-Jun-26	158	113						
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Section 4		14	05-Apr-26	20-Apr-26	199	155						
CON-13350	S2 - Wall E-2 - FRP Panels Section 4	6	05-Apr-26	13-Apr-26	200	158						
CON-13400	S2 - Wall E-2 - Cure Section 4	7	14-Apr-26	20-Apr-26	301	220						
CON-13450	S2 - Wall E-2 - Strip Panels Section 4	2	15-Apr-26	16-Apr-26	200	157						
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Wall E-2 | Finishes		5	18-Jun-26	24-Jun-26	518	176						
CON-14440	S2 - Wall E-2 - Surface Finish Front Face / Install Arch Finishes	5	18-Jun-26	24-Jun-26	618	118						
Const | St 2 | Sep Access | Seg E | Ret Fill Sta 13+04 to Sta 17+50 | Rdwy Section		15	15-Jun-26	09-Sep-26	270	114						
CON-47651	S2 - Seg E - 12+50 to 17+63 - Install Retaining Barrier	4	16-Jun-26	19-Jun-26	270							
CON-14780	S2 - Seg E - 12+50 to 17+63 - Place, Contour & Grade Wall BF & Ramp Embankment	2	22-Jun-26	08-Jul-26	270	121						
CON-14790	S2 - Seg E - 12+50 to 17+63 - Install Drainage Pipe & Appurtenances	5	09-Jul-26	15-Jul-26	270	121						
CON-14800	S2 - Seg E - 12+50 to 17+63 - Install Drainage Boxes & Appurtenances	5	14-Jul-26	27-Jul-26	270	121						
CON-14840	S2 - Seg E - 12+50 to 17+63 - Fine Grade Subgrade	3	28-Jul-26	30-Jul-26	270	121						
CON-14811	S2 - Seg E - 12+50 to 17+63 - Place Curb & Gutter	3	31-Jul-26	07-Aug-26	270	121						
CON-14820	S2 - Seg E - 12+50 to 17+63 - Place & Fine Grade Agg Base	4	10-Aug-26	13-Aug-26	270	121						
CON-14830	S2 - Seg E - 12+50 to 17+63 - Place Pvmnt Base Course	1	14-Aug-26	14-Aug-26	270	121						
CON-14810	S2 - Seg E - 12+50 to 17+63 - FRP Traffic Barrier	4	17-Aug-26	20-Aug-26	270	127						
CON-47661	S2 - Seg E - 12+50 to 17+63 - Place Pvmnt Wearing Course	1	21-Aug-26	21-Aug-26	270							
CON-47671	S2 - Seg E - 12+50 to 17+63 - Install Street Lighting	3	24-Aug-26	26-Aug-26	270							
CON-47681	S2 - Seg E - 12+50 to 17+63 - Install OHS & ITS Gantries & Signage	4	27-Aug-26	01-Sep-26	270							
CON-15300	S2 - Seg E - 12+50 to 17+63 - Place Pvmnt Mkgs & Signs for Stage 3 Config	3	02-Sep-26	09-Sep-26	270							
Const | St 2 | Sep Access | Seg F		409	30-Dec-25	20-Aug-27	38	-257						
Const | St 2 | Sep Access | Seg F | Finishes		22	22-Jul-27	20-Aug-27	38							
CON-47941	S2 - Seg F - 12+91 to 16+45 - Install Street Lighting & OHS Gantries / Signage	8	22-Jul-27	02-Aug-27	45							
CON-47821	S2 - Seg F - 12+91 to 16+45 - Place Wear Course Pavement	2	12-Aug-27	13-Aug-27	38							
CON-47951	S2 - Seg F - 12+91 to 16+45 - Place Pvmnt Mkgs & Signs	5	15-Aug-27	20-Aug-27	38							
Const | St 2 | Sep Access | Seg F | Bridge Sta 12+12 to Sta 12+91		380	30-Dec-25	12-Jul-27	55	-226						
Const | St 2 | Sep Access | Seg F | Bridge Sta 12+12 to Sta 12+91 | Fr F-F1 | F & S		38	30-Dec-25	23-Feb-26	392	30						
Const | St 2 | Sep Access | Seg F | Bridge Sta 12+12 to Sta 12+91 | Fr F-F1 | F & S | Abut A-A9		3				30						
CON-29110	S2 - F-F1 - A-A9 - Prep Work Pad For CIDH	1	30-Dec-25	30-Dec-25	16	29						
CON-29120	S2 - F-F1 - A-A9 - Install CIDH Shaft(s)	7	31-Dec-25	06-Jan-26	16	29						
CON-29100	S2 - F-F1 - A-A9 - Cure CIDH	7	10-Jan-26	16-Jan-26	248	42						
CON-28960	S2 - F-F1 - A-A9 - Excavate Footing	2	12-Jan-26	13-Jan-26	167	29						
CON-29090	S2 - F-F1 - A-A9 - Prep CIDH For Footing Construction	3	14-Jan-26	16-Jan-26	167	29						
CON-28970	S2 - F-F1 - A-A9 - Form Footing/Dowel Template	3	16-Jan-26	21-Jan-26	167	29						
CON-28980	S2 - F-F1 - A-A9 - Place Rebar	3	22-Jan-26	26-Jan-26	167	29						
CON-28990	S2 - F-F1 - A-A9 - Place Footing Concrete	1	27-Jan-26	27-Jan-26	167	29						
CON-29000	S2 - F-F1 - A-A9 - Cure Footing Concrete	7	28-Jan-26	13-Feb-26	246	42						
CON-29010	S2 - F-F1 - A-A9 - Strip Footing Forms/Dowel Template	1	28-Jan-26	28-Jan-26	167	29						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

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Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
71 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	FF Var - BL	2025	2026	2027	2028	2029	2030
CON-13810	S2 - Wall F-2 - Strip Panels Section 2	2	04-Jun-27	07-Jun-27	41	-248					
Const | St 2 | Sep Access | Seg F | Ret Fill Sta 12+91 to Sta 15+00 | Wall F-2 | Section 3											
CON-13700	S2 - Wall F-2 - Excavate for Footing Section 3	1	18-May-27	18-May-27	38	-248					
CON-13730	S2 - Wall F-2 - FRP Footing Section 3	3	25-May-27	27-May-27	38	-248					
CON-13760	S2 - Wall F-2 - FRP Panels Section 3	8	28-May-27	07-Jun-27	38	-248					
CON-13790	S2 - Wall F-2 - Final Cure Section 3	1	06-Jun-27	06-Jun-27	55	-370					
CON-13820	S2 - Wall F-2 - Strip Panels Section 3	2	08-Jun-27	10-Jun-27	38	-248					
Const | St 2 | Sep Access | Seg F | Ret Fill Sta 12+91 to Sta 15+00 | Wall F-2 | Finishes											
CON-14460	S2 - Wall F-2 - Surface Finish Front Face / Install Arch Finishes	5	11-Jun-27	17-Jun-27	38	-248					
Const | St 2 | Sep Access | Seg F | Ret Fill Sta 12+91 to Sta 15+00 | Rdwy Section											
CON-47811	S2 - Seg F - 12+91 to 15+00 - Install Retaining Barrier	4	18-Jun-27	23-Jun-27	38						
CON-14850	S2 - Seg F - 12+91 to 15+00 - Place, Contour & Grade Wall BF & Ramp Embankment	7	24-Jun-27	02-Jul-27	38	-252					
CON-14860	S2 - Seg F - 12+91 to 15+00 - Install Drainage Pipe & Appurtenances	5	06-Jul-27	12-Jul-27	38	-252					
CON-14870	S2 - Seg F - 12+91 to 15+00 - Install Drainage Boxes & Appurtenances	10	09-Jul-27	22-Jul-27	38	-252					
CON-14910	S2 - Seg F - 12+91 to 15+00 - Fine Grade Subgrade	3	23-Jul-27	27-Jul-27	38	-252					
CON-14990	S2 - Seg F - 12+91 to 15+00 - Place & Fine Grade Agg Base	3	28-Jul-27	03-Aug-27	38	-247					
CON-14900	S2 - Seg F - 12+91 to 15+00 - Place Base Course Pavement	1	04-Aug-27	04-Aug-27	38	-247					
CON-14880	S2 - Seg F - 12+91 to 15+00 - FRP Traffic Barrier	5	05-Aug-27	11-Aug-27	38	-258					
Const | St 2 | Sep Access | Seg F | At Grade Sta 15+00 to Sta 16+45											
CON-47831	S2 - Seg F - 15+00 to 16+45 - Remove Pavement & Hardscapes	2	24-Jun-27	25-Jun-27	45						
CON-47891	S2 - Seg F - 15+00 to 16+45 - Fine Grade Subgrade	3	28-Jun-27	30-Jun-27	45						
CON-47921	S2 - Seg F - 15+00 to 16+45 - Install Curb & Gutter	3	01-Jul-27	06-Jul-27	45						
CON-47931	S2 - Seg F - 15+00 to 16+45 - Install Street Lighting Conduit & Handholes	2	07-Jul-27	08-Jul-27	45						
CON-47871	S2 - Seg F - 15+00 to 16+45 - Place & Fine Grade Agg Base	3	08-Jul-27	13-Jul-27	45						
CON-47881	S2 - Seg F - 15+00 to 16+45 - Place Base Course Pavement	1	14-Jul-27	14-Jul-27	45						
CON-47861	S2 - Seg F - 15+00 to 16+45 - FRP Traffic Barrier	5	15-Jul-27	21-Jul-27	45						
Const | St 2 | Sep Access | Seg G											
Const | St 2 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12											
Const | St 2 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | F & S											
Const | St 2 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | F & S | Abut G-A5											
CON-16360	S2 - G-F1 - G-A5 - Install CIDH Shaft(s)	7	16-Sep-26	24-Sep-26	44	-143					
CON-16380	S2 - G-F1 - G-A5 - Excavate Footing	4	25-Sep-26	30-Sep-26	51	-143					
CON-16370	S2 - G-F1 - G-A5 - Cure CIDH	7	25-Sep-26	01-Oct-26	101	-204					
CON-16390	S2 - G-F1 - G-A5 - Prep CIDH For Footing Construction	3	01-Oct-26	05-Oct-26	51	-143					
CON-16410	S2 - G-F1 - G-A5 - Form Footing/Dowel Template	3	05-Oct-26	08-Oct-26	51	-143					
CON-16450	S2 - G-F1 - G-A5 - Place Rebar	3	09-Oct-26	13-Oct-26	51	-143					
CON-16460	S2 - G-F1 - G-A5 - Place Footing Concrete	1	14-Oct-26	14-Oct-26	51	-143					
CON-16510	S2 - G-F1 - G-A5 - Cure Footing Concrete	7	15-Oct-26	21-Oct-26	96	-204					
CON-16520	S2 - G-F1 - G-A5 - Strip Footing Forms/Dowel Template	1	15-Oct-26	15-Oct-26	51	-143					
CON-16550	S2 - G-F1 - G-A5 - Blast/Prep For Stems & Wings	1	16-Oct-26	16-Oct-26	51	-143					
CON-16560	S2 - G-F1 - G-A5 - Form 1S Stems/Wings/Backwall	3	19-Oct-26	21-Oct-26	51	-143					
CON-16610	S2 - G-F1 - G-A5 - Place Stem & Wing Rebar	3	22-Oct-26	25-Oct-26	51	-143					

Date Date: 01-Nov-24
Remaining Work & Last 30 Days

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Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
74 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Wp	SL	202520262027202820292030											
								10NOV	1A	1JAS	1NOV	1A	1JAS	1NOV	1A	1JAS	1NOV	1A	1JAS
CON-45530	S2 - G-F1 - G-A1 - Prep CIDH For Footing Construction	3	12-Oct-26	14-Oct-26	44														
CON-45540	S2 - G-F1 - G-A1 - Form Footing/Dowel Template	3	15-Oct-26	19-Oct-26	46														
CON-45550	S2 - G-F1 - G-A1 - Place Rebar	3	20-Oct-26	22-Oct-26	46														
CON-45560	S2 - G-F1 - G-A1 - Place Footing Concrete	1	23-Oct-26	23-Oct-26	46														
CON-45570	S2 - G-F1 - G-A1 - Cure Footing Concrete	7	24-Oct-26	31-Oct-26	87														
CON-45580	S2 - G-F1 - G-A1 - Strip Footing Forms/Dowel Template	1	26-Oct-26	26-Oct-26	44														
CON-45590	S2 - G-F1 - G-A1 - Blast/Prep For Stems & Wings	1	27-Oct-26	27-Oct-26	44														
CON-45600	S2 - G-F1 - G-A1 - Form 1S Stems/Wings/Backwall	3	28-Oct-26	30-Oct-26	44														
CON-45610	S2 - G-F1 - G-A1 - Place Stem & Wing Rebar	3	32-Nov-26	04-Nov-26	44														
CON-45620	S2 - G-F1 - G-A1 - Form 2S Stems & Wings	2	05-Nov-26	06-Nov-26	44														
CON-45630	S2 - G-F1 - G-A1 - Place Stem & Wing Concrete	1	09-Nov-26	09-Nov-26	44														
CON-45640	S2 - G-F1 - G-A1 - Cure Stem & Wing Concrete	7	10-Nov-26	16-Nov-26	78														
CON-45650	S2 - G-F1 - G-A1 - Strip Stem & Wing Forms / Rough Surface Finish	2	17-Nov-26	18-Nov-26	45														
CON-45660	S2 - G-F1 - G-A1 - Backfill	1	19-Nov-26	19-Nov-26	480														
Const | St 2 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup			139	19-Nov-26	18-Jun-27	330	-44												
Const | St 2 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup | FW			134	19-Nov-26	11-Jun-27	44	-154												
CON-18600	S2 - G-F1 - FW - Install Grillage/Bents/Bent Caps/Posts/Stringers	5	16-Nov-26	25-Nov-26	45	-25													
CON-49041	S2 - G-F1 - FW - Remove Falsework	5	07-Jun-27	11-Jun-27	44														
Const | St 2 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup | Soffit & Stm			70	01-Dec-26	19-Mar-27	72	-15												
CON-18870	S2 - G-F1 - S&S - Install Soffit & Safety Rail	12	01-Dec-26	18-Dec-26	45	-24													
CON-19090	S2 - G-F1 - S&S - Form Exterior Girder & OH	17	26-Dec-26	20-Jan-27	46	-17													
CON-19220	S2 - G-F1 - S&S - Place Soffit Rebar	8	04-Jan-27	13-Jan-27	46	-22													
CON-19390	S2 - G-F1 - S&S - Place Stem Rebar	8	14-Jan-27	25-Jan-27	46	-30													
CON-19500	S2 - G-F1 - S&S - Install PT Ducts	4	22-Jan-27	27-Jan-27	45	-20													
CON-19570	S2 - G-F1 - S&S - Form Interior Girder & Walkways	16	26-Jan-27	19-Feb-27	45	-12													
CON-19780	S2 - G-F1 - S&S - Form Diaphragms & Blockouts	5	22-Feb-27	26-Feb-27	45	-14													
CON-19860	S2 - G-F1 - S&S - Place Soffit & Stem Concrete	2	01-Mar-27	02-Mar-27	45	-14													
CON-19890	S2 - G-F1 - S&S - Cure Soffit & Stem Concrete	7	03-Mar-27	09-Mar-27	113	-21													
CON-19900	S2 - G-F1 - S&S - Strip Interior Girder Forms & Walkways	8	03-Mar-27	12-Mar-27	45	-11													
CON-19930	S2 - G-F1 - S&S - Strip Diaphragms	5	15-Mar-27	19-Mar-27	45	-15													
Const | St 2 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup | Deck			46	22-Mar-27	24-May-27	14	-21												
CON-19860	S2 - G-F1 - DECK - Form Lost Deck	8	22-Mar-27	31-Mar-27	45	-14													
CON-20000	S2 - G-F1 - DECK - Form EOD	8	01-Apr-27	12-Apr-27	45	-14													
CON-20030	S2 - G-F1 - DECK - Install Screed Rails & Run-Offs	10	02-Apr-27	15-Apr-27	51	-14													
CON-20100	S2 - G-F1 - DECK - Place Deck Rebar	10	13-Apr-27	26-Apr-27	45	-14													
CON-20120	S2 - G-F1 - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	16-Apr-27	16-Apr-27	51	-14													
CON-20190	S2 - G-F1 - DECK - Dry-run Bridge Finishing Machine	1	27-Apr-27	27-Apr-27	45	-14													
CON-20230	S2 - G-F1 - DECK - Place Bridge Deck Concrete	1	28-Apr-27	28-Apr-27	45	14													
CON-20270	S2 - G-F1 - DECK - Cure Bridge Deck Concrete	7	29-Apr-27	05-May-27	34	-17													
CON-20280	S2 - G-F1 - DECK - Strip Screed Rails & EOD	4	06-May-27	11-May-27	44	-21													
CON-20291	S2 - G-F1 - DECK - Strip Ext Girder & OH	3	12-May-27	24-May-27	44	-31													
Const | St 2 | Sep Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Fr G-F1 | Sup | PT			22	9-May-27	18-Jun-27	330													

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
 ATMP Rowy Imp | Baseline Schedule | Schematic Design RD - Update 16
 76 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
CON-48951	S2 - G-F1 - PT - Install PT Strands	1	19-May-27	24-May-27	44								
CON-48961	S2 - G-F1 - PT - Stress & Lock-off	3	25-May-27	27-May-27	44								
CON-48871	S2 - G-F1 - PT - Grout PT Ducts	2	28-May-27	01-Jun-27	44								
CON-48981	S2 - G-F1 - PT - F/PIS PT Blockouts	3	02-Jun-27	04-Jun-27	44								
CON-48991	S2 - G-F1 - PT - Place Backwall Rebar G-A5	1	07-Jun-27	07-Jun-27	228								
CON-49001	S2 - G-F1 - PT - Form 2S Backwall G-A5	1	08-Jun-27	08-Jun-27	228								
CON-49051	S2 - G-F1 - PT - Place Backwall Rebar G-A1	1	08-Jun-27	08-Jun-27	228								
CON-49011	S2 - G-F1 - PT - Place Backwall Concrete G-A5	1	08-Jun-27	09-Jun-27	228								
CON-49061	S2 - G-F1 - PT - Form 2S Backwall G-A1	1	09-Jun-27	09-Jun-27	228								
CON-49021	S2 - G-F1 - PT - Cure Backwall Concrete G-A5	7	10-Jun-27	16-Jun-27	488								
CON-49071	S2 - G-F1 - PT - Place Backwall Concrete G-A1	1	10-Jun-27	10-Jun-27	228								
CON-49081	S2 - G-F1 - PT - Cure Backwall Concrete G-A1	7	11-Jun-27	17-Jun-27	339								
CON-49031	S2 - G-F1 - PT - Strip Backwall Forms/Clean Bridge Seal 1 Day Minimum Removal A-G-A5	1	17-Jun-27	17-Jun-27	331								
CON-49091	S2 - G-F1 - PT - Strip Backwall Forms/Clean Bridge Seal 1 Day Minimum Removal G-A1	1	18-Jun-27	18-Jun-27	228								
Const | St 2 | Cen Access | Seg G | Bridge Sta 9+54 to Sta 15+12 | Finishes		38	14-Jun-27	30-Aug-27	3								
CON-10800	S2 - Br G - FRP Bridge Rail	7	14-Jun-27	22-Jun-27	365		-39						
CON-15260	S2 - Br G - FRP Approach Slab G-A5	5	16-Aug-27	20-Aug-27	313		7						
CON-45670	S2 - Br G - FRP Approach Slab G-A1	5	24-Aug-27	30-Aug-27	307								
Const | St 2 | Cen Access		217	04-Mar-28	21-Jan-27	450		-38						
Const | St 2 | Cen Access | MOT		69	04-Mar-28	21-Jan-27	450		-35						
CON-48691	S2 - Establish MOT Measures on World Way for Seg L Construction	2	13-Mar-26	16-Mar-26	587								
CON-16350	S2 - Establish MOT Measures / Shift WB Century to Arrivals onto Temp X-Over	3	22-May-26	27-May-26	3		-25						
Const | St 2 | Cen Access | Seg L | Temp Paving | Airport Return Loop for L		7	04-Mar-26	12-Mar-26	461		-26						
Const | St 2 | Cen Access | Seg L | Temp Paving | Airport Return Loop for L | Return Loop		7	04-Mar-26	12-Mar-26	461		-26						
CON-15290	S2 - Return Loop - Demo Existing Curb	2	04-Mar-26	05-Mar-26	461		-26						
CON-15310	S2 - Return Loop - Perform Rdwy Exc & Fine Grd Subgrade	1	06-Mar-26	06-Mar-26	461		-26						
CON-15320	S2 - Return Loop - Place & Fine Grade Agg Base	2	06-Mar-26	10-Mar-26	461		-26						
CON-15330	S2 - Return Loop - Place ACP	1	11-Mar-26	11-Mar-26	461		-26						
CON-15340	S2 - Return Loop - Install K-Rail	1	12-Mar-26	12-Mar-26	461		-26						
Const | St 2 | Cen Access | Seg L | Temp Paving | Airport Return Loop for L | Admin East Drwy		6	06-Mar-26	12-Mar-26	461		-26						
CON-15350	S2 - Admin East Drwy - Demo Existing Curb	1	06-Mar-26	06-Mar-26	461		-26						
CON-15360	S2 - Admin East Drwy - Perform Rdwy Exc & Fine Grd Subgrade	1	06-Mar-26	09-Mar-26	461		-26						
CON-15370	S2 - Admin East Drwy - Place & Fine Grade Agg Base	1	10-Mar-26	10-Mar-26	461		-26						
CON-15380	S2 - Admin East Drwy - Place ACP	1	11-Mar-26	11-Mar-26	461		-26						
CON-15390	S2 - Admin East Drwy - Install K-Rail	1	12-Mar-26	12-Mar-26	461		-26						
Const | St 2 | Cen Access | Seg L		210	12-Mar-26	21-Jan-27	450		-36						
Const | St 2 | Cen Access | Seg L | Roadway Finishes		20	17-Dec-26	21-Jan-27	450		-36						
CON-34300	S2 - Seg L - Construct Final Roadway Finishes	20	17-Dec-26	21-Jan-27	450		-36						
Const | St 2 | Cen Access | Seg L | At Grade Sta 66+10 to Sta 67+00 & Seg S Gore		37	17-Mar-26	06-May-26	587								
CON-49701	S2 - L 66+10 to 67+00 - Remove Pavements & Hardscapes	4	17-Mar-26	20-Mar-26	587								
CON-49711	S2 - L 66+10 to 67+00 - Install Drainage Pipe & Appurtenances	10	23-Mar-26	03-Apr-26	587								
CON-49731	S2 - L 66+10 to 67+00 - Install Curb & Gutter	7	05-Apr-26	14-Apr-26	587								

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

■ Remaining Level of Effort ■ Remaining Work
■ Actual Level of Effort ■ Critical Remaining Work
■ Actual Work ◆ Milestone

Skanska-Platiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
77 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
CON-49741	S2 - L 66+10 to 67+00 - Prep Subgrade & Place Agg Base	5	16-Apr-26	21-Apr-26	587			10	11	12	13	14	15
CON-49751	S2 - L 66+10 to 67+00 - Place HMA Base Course	1	22-Apr-26	22-Apr-26	587			11	12	13	14	15	16
CON-49761	S2 - L 66+10 to 67+00 - Install Sidewalk & ADA Ramps	5	23-Apr-26	29-Apr-26	587			12	13	14	15	16	17
CON-49721	S2 - L 66+10 to 67+00 - Install Roadway Finishes & Remove K-Rail on Seg S	5	30-Apr-26	05-May-26	587			13	14	15	16	17	18
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to Sta 69+08		72	16-Mar-26	24-Jun-26	567			14	15	16	17	18	19
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1		57	16-Mar-26	03-Jun-26	567	-6		15	16	17	18	19	20
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | CIDH					568			16	17	18	19	20	21
CON-14240	S2 - Wall L-1 - Prep Work Pad for CIDH / Remove Ex Pymnts	4	16-Mar-26	19-Mar-26	583	10		17	18	19	20	21	22
CON-14250	S2 - Wall L-1 - Install CIDH Shafts	11	14-Apr-26	26-Apr-26	598	-7		18	19	20	21	22	23
CON-14250	S2 - Wall L-1 - Final Cure CIDH Shafts	7	28-Apr-26	05-May-26	840	-11		19	20	21	22	23	24
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Section 1					569			20	21	22	23	24	25
CON-14270	S2 - Wall L-1 - Excavate for Footing Section 1	1	06-May-26	06-May-26	568	-7		21	22	23	24	25	26
CON-14290	S2 - Wall L-1 - FRP Footing Section 1	3	07-May-26	11-May-26	568	-7		22	23	24	25	26	27
CON-14310	S2 - Wall L-1 - FRP Panels Section 1	3	12-May-26	19-May-26	569	-7		23	24	25	26	27	28
CON-14330	S2 - Wall L-1 - Final Cure Section 1	1	20-May-26	20-May-26	646	-11		24	25	26	27	28	29
CON-14350	S2 - Wall L-1 - Strip Panels Section 1	2	21-May-26	22-May-26	569	-8		25	26	27	28	29	30
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Section 2								26	27	28	29	30	31
CON-14280	S2 - Wall L-1 - Excavate for Footing Section 2	1	07-May-26	07-May-26	568	-7		27	28	29	30	31	32
CON-14300	S2 - Wall L-1 - FRP Footing Section 2	3	12-May-26	14-May-26	566	-7		28	29	30	31	32	33
CON-14320	S2 - Wall L-1 - FRP Panels Section 2	6	15-May-26	22-May-26	566	-7		29	30	31	32	33	34
CON-14340	S2 - Wall L-1 - Final Cure Section 2	1	23-May-26	23-May-26	843	-9		30	31	32	33	34	35
CON-14360	S2 - Wall L-1 - Strip Panels Section 2	2	26-May-26	27-May-26	567	-6		31	32	33	34	35	36
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to 69+08 | Wall L-1 | Finishes		5	23-May-26	03-Jun-26	567	-6		32	33	34	35	36	37
CON-14490	S2 - Wall L-1 - Surface Finish Front Face / Install Arch Finishes	5	28-May-26	03-Jun-26	567	-6		33	34	35	36	37	38
Const | St 2 | Cen Access | Seg L | Ret Fill Sta 67+83 to Sta 69+08 | Rdwy Section		5	04-Jun-26	24-Jun-26	587	7		34	35	36	37	38	39
CON-14990	S2 - L 67+83 to 69+08 - Place, Contour & Grade Wall BF & Ramp Embankment	5	04-Jun-26	10-Jun-26	587	-6		35	36	37	38	39	40
CON-15050	S2 - L 67+83 to 69+08 - Fine Grade Subgrade	3	11-Jun-26	15-Jun-26	587	7		36	37	38	39	40	41
CON-15020	S2 - L 67+83 to 69+08 - FRP Traffic Barrier	3	16-Jun-26	18-Jun-26	567	7		37	38	39	40	41	42
CON-15030	S2 - L 67+83 to 69+08 - Place & Fine Grade Agg Base	3	18-Jun-26	23-Jun-26	567	7		38	39	40	41	42	43
CON-15040	S2 - L 67+83 to 69+08 - Place HMA Pavement	1	24-Jun-26	24-Jun-26	567	7		39	40	41	42	43	44
Const | St 2 | Cen Access | Seg L | Bridge Sta 69+08 to Sta 73+00		190	13-Mar-26	16-Dec-26	450	-36		40	41	42	43	44	45
Const | St 2 | Cen Access | Seg L | Bridge Sta 69+08 to Sta 73+00 | Fr L-F1		183	13-Mar-26	03-Dec-26	450	-36		41	42	43	44	45	46
Const | St 2 | Cen Access | Seg L | Sta 69+08 to Sta 73+00 | Fr L-F1 | F & S								42	43	44	45	46	47
Const | St 2 | Cen Access | Seg L | Sta 69+08 to Sta 73+00 | Fr L-F1 | F & S | Bent L-B72WA								43	44	45	46	47	48
CON-30750	S2 - L-F1 - L-B72WA - Install CIDH Shaft(s)	4	13-Mar-26	18-Mar-26	444	-24		44	45	46	47	48	49
CON-30760	S2 - L-F1 - L-B72WA - Cure Shaft	7	19-Mar-26	25-Mar-26	712	-35		45	46	47	48	49	50
CON-30770	S2 - L-F1 - L-B72WA - Prep Transition Zone/Set Column Cage & Guy	4	19-Mar-26	24-Mar-26	477	-24		46	47	48	49	50	51
CON-30780	S2 - L-F1 - L-B72WA - Place Transition Zone Concrete	1	26-Mar-26	26-Mar-26	476	-25		47	48	49	50	51	52
CON-30790	S2 - L-F1 - L-B72WA - Cure Transition Zone Concrete	7	27-Mar-26	02-Apr-26	712	-35		48	49	50	51	52	53
CON-30800	S2 - L-F1 - L-B72WA - Form Column	3	27-Mar-26	31-Mar-26	477	-25		49	50	51	52	53	54
CON-30840	S2 - L-F1 - L-B72WA - Connect Thermal Control System	1	01-Apr-26	01-Apr-26	477	-25		50	51	52	53	54	55
CON-30810	S2 - L-F1 - L-B72WA - Place Column Concrete	1	03-Apr-26	03-Apr-26	476	-25		51	52	53	54	55	56

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Summary

Skanska-Flatiron Joint Venture
 ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
 78 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var - BL	2025	2026	2027	2028	2029	2030
CON-30360	S2 - L-F1 - DECK - Place Deck Rebar	9	08-Oct-26	20-Oct-26	445	-39						
CON-30390	S2 - L-F1 - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	09-Oct-26	09-Oct-26	452	-39						
CON-30420	S2 - L-F1 - DECK - Dry-run Bridge Finishing Machine	1	21-Oct-26	21-Oct-26	445	-39						
CON-30400	S2 - L-F1 - DECK - Place Bridge Deck Concrete	1	22-Oct-26	22-Oct-26	445	-39						
CON-30410	S2 - L-F1 - DECK - Cure Bridge Deck Concrete	10	23-Oct-26	01-Nov-26	558	-56						
CON-30430	S2 - L-F1 - DECK - Strip Spread Rails & EOD	2	23-Oct-26	26-Oct-26	456	-39						
CON-30440	S2 - L-F1 - DECK - Strip CJ Bulkheads	1	23-Oct-26	23-Oct-26	448	-39						
Const | St 2 | Cen Access | Seg L | Sta 69+08 to Sta 73+00 | Fr L-F1 | PS Sup | PT & Bv												
CON-30300	S2 - L-F1 - PT - Install PT Strands	4	26-Oct-26	29-Oct-26	448	-39						
CON-30310	S2 - L-F1 - PT - Stress & Lock-off	3	02-Nov-26	04-Nov-26	447	-39						
CON-30320	S2 - L-F1 - PT - Grout PT Ducts	2	06-Nov-26	06-Nov-26	447	-39						
CON-30330	S2 - L-F1 - PT - Strip Exterior Girder & OH Forms	8	09-Nov-26	17-Nov-26	447	-39						
CON-30340	S2 - L-F1 - PT - F/P/S PT Blockouts	3	16-Nov-26	20-Nov-26	447	-39						
CON-32050	S2 - L-F1 - PT - Place Backwall Rebar	1	23-Nov-26	23-Nov-26	447	-39						
CON-32060	S2 - L-F1 - PT - Form 2S Backwall	1	24-Nov-26	24-Nov-26	447	-39						
CON-32070	S2 - L-F1 - PT - Place Backwall Concrete	1	25-Nov-26	25-Nov-26	447	-39						
CON-32080	S2 - L-F1 - PT - Cure Backwall Concrete	7	26-Nov-26	02-Dec-26	570	-56						
CON-32090	S2 - L-F1 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal	1	03-Dec-26	03-Dec-26	450	-36						
Const | St 2 | Cen Access | Seg L | Bridge Sta 69+08 to Sta 73+00 | Finishes												
CON-10750	S2 - Br L - FRP Bridge Rail	7	04-Dec-26	16-Dec-26	450	-36						
Const | Stage 3												
Const | Stage 3 | Sep Access												
Const | Stage 3 | Sep Access | MOT												
CON-32150	S3 - Establish MOT Measures Sepulveda Traffic Switch To Temp Pavement Segment A Ramp	2	13-May-27	14-May-27	0	-8						
CON-15550	S3 - Open Seg E from NB Sep to EB 96th	2	13-Aug-27	16-Aug-27	44							
CON-47961	S3 - Open Seg F Movement SB Sep to EB 96th	2	23-Aug-27	24-Aug-27	38							
Const | St 3 | Sep Access | Seg A												
Const | St 3 | Sep Access | Seg A | Finishes												
Const | St 3 | Sep Access | Seg A | Rdwy Finishes												
CON-32160	S3 - Seg A - Demo Sepulveda Curb & Pmnts For Temp Tie-In	4	27-Jan-27	01-Feb-27	56	-84						
CON-47541	S3 - Seg A - Perform Rdwy Exc for Temp Tie-In	3	02-Feb-27	04-Feb-27	58							
CON-47551	S3 - Seg A - Fine Grd Subgrade & Place Agg Base For Temp Tie-In	6	05-Feb-27	12-Feb-27	58							
CON-47561	S3 - Seg A - Place Pmnt for Temp Tie-In SB Sep to New Seg A Ramp	1	16-Feb-27	16-Feb-27	58							
CON-20660	S3 - Seg A - Install Signs & Pmnt Mkgs for Seg A with Temp Connection	5	06-May-27	12-May-27	0	-8						
Const | St 3 | Sep Access | Seg A | Electrical Finishes												
CON-22380	S3 - Seg A - Install Street Lighting Fixtures Sta 14+91 to Sta 20+50	4	07-Jan-27	12-Jan-27	80	-229						
CON-22450	S3 - Seg A - Install OHS & ITS Gantries Sta 14+91 to Sta 20+50	3	13-Jan-27	15-Jan-27	81	-164						
CON-22470	S3 - Seg A - Install OHS Wayfinding Signage Sta 14+91 to Sta 20+50	1	16-Jan-27	18-Jan-27	81	-158						
CON-22410	S3 - Seg A - Install Bridge Soffit Lighting Frame A-F1 over Sepulveda	6	04-Feb-27	11-Feb-27	693	-189						
CON-22400	S3 - Seg A - Install Street Lighting Fixtures Sta 51+96 to Sta 56+15	3	24-Feb-27	26-Feb-27	48	-198						
CON-22420	S3 - Seg A - Install Bridge Soffit Lighting Frame A-F2 thru A-F5	10	22-Mar-27	02-Apr-27	558	-222						
CON-22390	S3 - Seg A - Install Street Lighting Fixtures Bridge A	8	26-Apr-27	05-May-27	0	-251						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

■ Remaining Level of Effort ■ Remaining Work
■ Actual Level of Effort ■ Critical Remaining Work
■ Actual Work ◆ Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
81 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TP Var - BL	2025	2026	2027	2028	2029	2030
CON-22460	S3 - Seg A- Install OHS & TS Gantries Bridge A	8	26-Apr-27	05-May-27	-239						
CON-22480	S3 - Seg A- Install OHS Wayfinding Signage Bridge A	2	06-May-27	07-May-27	-236						
CON-22350	S3 - Seg A- Install OHS Wayfinding Signage Ex Bridge Over Sep	2	10-May-27	11-May-27	-305						
CON-22430	S3 - Seg A- Install Bridge Soffit Lighting Frame A-F6	5	17-May-27	21-May-27	-252						
CON-22440	S3 - Seg A- Install Bridge Soffit Lighting Frame A-F7 & A-F8 over Century	6	24-May-27	28-May-27	-259						
Const | Stage 3 | Sep Access | Seg C		54	16-Feb-27	04-May-27							
Const | Stage 3 | Sep Access | Seg C | At Grade SEP1 Sta 27+33 to C Sta 12+78		54	16-Feb-27	04-May-27							
CON-47791	S3 - C SEP1 27+33 to C 12+78 - Install Retaining Barrier	4	18-Feb-27	23-Feb-27							
CON-12961	S3 - C SEP1 27+33 to C 12+78 - Remove Pavements & Hardscapes	4	21-Feb-27	01-Mar-27							
CON-12971	S3 - C SEP1 27+33 to C 12+78 - Perform Roadway Excavation	4	02-Mar-27	05-Mar-27							
CON-12981	S3 - C SEP1 27+33 to C 12+78 - Install Storm Drainage & Appurtenances	20	09-Mar-27	02-Apr-27							
CON-12991	S3 - C SEP1 27+33 to C 12+78 - Grade for Flatwork & Barriers	3	05-Apr-27	07-Apr-27							
CON-13001	S3 - C SEP1 27+33 to C 12+78 - Place Flatwork & Barriers	3	08-Apr-27	12-Apr-27							
CON-47801	S3 - C SEP1 27+33 to C 12+78 - Install Street Lighting Conduits & Handholes	4	13-Apr-27	16-Apr-27							
CON-13011	S3 - C SEP1 27+33 to C 12+78 - Fine Grade Subgrade	2	19-Apr-27	20-Apr-27							
CON-13021	S3 - C SEP1 27+33 to C 12+78 - Place & Fine Grade Agg Base	4	21-Apr-27	26-Apr-27							
CON-13031	S3 - C SEP1 27+33 to C 12+78 - Place ACP	1	27-Apr-27	27-Apr-27							
CON-13041	S3 - C SEP1 27+33 to C 12+78 - Install Roadway Finishes	5	28-Apr-27	04-May-27							
Const | Stage 3 | Century Access		82	23-Mar-27	16-Jul-27							
Const | Stage 3 | Century Access | Seg J		23	23-Mar-27	16-Jul-27							
CON-41000	S3 - Seg J - Install FINAL Roadway Finishes	10	02-Jul-27	16-Jul-27	56						
Const | Stage 3 | Century Access | Seg J | At Grade Sta 12+70 to Sta 16+14		19	23-Mar-27	16-Apr-27	83						
CON-40010	S3 - Seg J - Sta 12+70 to Sta 16+14 - Demo Existing Curb & Gutter	4	23-Mar-27	26-Mar-27	83						
CON-40020	S3 - Seg J - Sta 12+70 to Sta 16+14 - Perform Roadway Excavation	3	29-Mar-27	31-Mar-27	83						
CON-40030	S3 - Seg J - Sta 12+70 to Sta 16+14 - Grade for Flatwork	2	01-Apr-27	02-Apr-27	83						
CON-40810	S3 - Seg J - Sta 12+70 to Sta 16+14 - Place Curb & Gutter	4	05-Apr-27	08-Apr-27	83						
CON-40820	S3 - Seg J - Sta 12+70 to Sta 16+14 - Install & Fine Grade Agg Base	5	08-Apr-27	15-Apr-27	83						
CON-40830	S3 - Seg J - Sta 12+70 to Sta 16+14 - Place ACP	1	16-Apr-27	16-Apr-27	83						
Const | Stage 3 | Century Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35		72	23-Mar-27	01-Jul-27	58						
Const | Stage 3 | Century Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Left Lane		34	23-Mar-27	07-May-27	58						
CON-40840	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Install Storm Drainage & Appurtenances	16	23-Mar-27	12-Apr-27	58						
CON-40850	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Grade for Barriers	3	13-Apr-27	15-Apr-27	58						
CON-40860	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - FRP Traffic Barrier	5	16-Apr-27	22-Apr-27	58						
CON-40870	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Sawcut & Demo Temp Pavement Edge	2	23-Apr-27	26-Apr-27	58						
CON-40880	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Fine Grade Subgrade	3	27-Apr-27	29-Apr-27	58						
CON-40890	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Place & Fine Grade Agg Base	5	30-Apr-27	06-May-27	58						
CON-40900	S3 - Seg J - Sta 16+14 to Sta 21+35 Left Lane - Place ACP	1	07-May-27	07-May-27	68						
Const | Stage 3 | Century Access | Seg J | Ret Fill Sta 16+14 to Sta 21+35 | Right Lane		38	10-May-27	01-Jul-27	58						
CON-40910	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Shift Traffic South	1	10-May-27	10-May-27	68						
CON-40920	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Sawcut & Demo Temp Pavement	4	11-May-27	14-May-27	68						
CON-40930	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Perform Roadway Excavation	1	17-May-27	17-May-27	68						
CON-40940	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Install Storm Drainage & Appurtenances	15	18-May-27	08-Jun-27	68						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

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■ Actual Level of Effort ■ Critical Remaining Work
■ Actual Work ◆ Milestone

Summary

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
82 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Ver	SL	2025	2026	2027	2028	2029	2030
CON-40950	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Grade for Flatwork	3	09-Jun-27	11-Jun-27	88								
CON-40960	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Place Curb & Gutter	5	14-Jun-27	18-Jun-27	68								
CON-40970	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Fine Grade Subgrade	3	21-Jun-27	23-Jun-27	68								
CON-40980	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Place & Fine Grade Agg Base	5	24-Jun-27	30-Jun-27	68								
CON-40990	S3 - Seg J - Sta 16+14 to Sta 21+35 Right Lane - Place ACP	1	01-Jul-27	01-Jul-27	68								
Const | Stage 4		536	28-May-26	01-Aug-28	28		-74						
Const | St 4 | Sep Access		157	17-May-27	11-Jan-28	373		-31						
Const | St 4 | Sep Access | MOT		77	09-Sep-27	11-Jan-28	373								
CON-47541	S4 - Open Seg A Ramp from SB Sep in Stage 4 Configuration	2	09-Sep-27	10-Sep-27	448								
CON-47631	S4 - Open Seg A CTA Tie-In Stage 4 Configuration	2	10-Jan-28	11-Jan-28	373								
Const | St 4 | Sep Access | Demolition		10	17-May-27	28-May-27	83		-8						
CON-32180	S4 - Demolish Existing Skyway Over Sepulveda | Major Demolition	10	17-May-27	28-May-27	83		-8						
Const | St 4 | Sep Access | Seg A		15	17-May-27	07-Jan-28	373		-65						
Const | St 4 | Sep Access | Seg A | At Grade Sta 10+87 to Sta 16+70 - Phase 2		77	17-May-27	02-Sep-27	451		13						
CON-32170	S4 - A 10+87 to 16+70 - Demo SB Sepulveda to Skyway Ramp	8	17-May-27	21-May-27	73		-8						
CON-32190	S4 - A 10+87 to 16+70 - Perform Roadway Excavation - Gore	2	20-Jul-27	21-Jul-27	451		28						
CON-47571	S4 - A 10+87 to 16+70 - Install Drainage - Gore	10	22-Jul-27	04-Aug-27	451		18						
CON-32200	S4 - A 10+87 to 16+70 - Grade for Flatwork & Barriers - Gore	8	05-Aug-27	09-Aug-27	451		18						
CON-32210	S4 - A 10+87 to 16+70 - Place Flatwork & Barriers - Gore	4	10-Aug-27	13-Aug-27	451		16						
CON-32220	S4 - A 10+87 to 16+70 - Prep Subgrade & Place Agg Base - Gore	4	16-Aug-27	19-Aug-27	451		18						
CON-32230	S4 - A 10+87 to 16+70 - Place Pavement Base Course - Gore	1	20-Aug-27	20-Aug-27	451		22						
CON-47581	S4 - A 10+87 to 16+70 - Install Street Lighting - Gore	8	23-Aug-27	25-Aug-27	451								
CON-47591	S4 - A 10+87 to 16+70 - Place Pavement Wearing Course - Gore	1	25-Aug-27	25-Aug-27	451								
CON-47601	S4 - A 10+87 to 16+70 - Place Pavement Mkgs & Signs Stage 4 Config - Gore	5	27-Aug-27	02-Sep-27	451								
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B		39	24-May-27	18-Jun-27	451		28						
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | CIDH		20	24-May-27	21-Jun-27	451		28						
CON-15460	S4 - Wall A-2A&B - Prep Work Pad for CIDH / Remove Ex Pvmnts - Sections 5 - 7	4	24-May-27	27-May-27	73		-8						
CON-15470	S4 - Wall A-2A&B - Install CIDH Shafts - Sections 6 - 7	11	28-May-27	14-Jun-27	73		28						
CON-15480	S4 - Wall A-2A&B - Final Cure CIDH Shafts - Sections 6 - 7	7	15-Jun-27	21-Jun-27	675		39						
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Section 6		13	22-Jun-27	09-Jul-27	451		27						
CON-10320	S4 - Wall A-2A&B - Excavate for Footing Section 6	1	22-Jun-27	22-Jun-27	451		28						
CON-10380	S4 - Wall A-2A&B - FRP Footing Section 6	3	23-Jun-27	25-Jun-27	451		28						
CON-10440	S4 - Wall A-2A&B - FRP Panels Section 6	6	28-Jun-27	06-Jul-27	451		28						
CON-10500	S4 - Wall A-2A&B - Final Cure Section 6	1	07-Jul-27	07-Jul-27	679		38						
CON-10560	S4 - Wall A-2A&B - Strip Panels Section 6	2	08-Jul-27	09-Jul-27	454		27						
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Section 7		16	10-Jun-27	18-Jul-27	451		28						
CON-10580	S4 - Wall A-2A&B - Excavate for Footing Section 7	1	23-Jun-27	23-Jun-27	456		28						
CON-10590	S4 - Wall A-2A&B - FRP Footing Section 7	3	25-Jun-27	30-Jun-27	454		28						
CON-10600	S4 - Wall A-2A&B - FRP Panels Section 7	6	07-Jul-27	14-Jul-27	451		28						
CON-10610	S4 - Wall A-2A&B - Final Cure Section 7	1	15-Jul-27	15-Jul-27	675		40						
CON-10620	S4 - Wall A-2A&B - Strip Panels Section 7	2	16-Jul-27	19-Jul-27	451		28						
Const | St 4 | Sep Access | Seg A | Ret Fill Sta 16+70 to Sta 20+50 | Wall A-2A&B | Finishes		5	12-Jul-27	18-Jul-27	454		27						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

■ Remaining Level of Effort ■ Remaining Work ■ Su...
■ Actual Level of Effort ■ Critical Remaining Work
■ Actual Work ◆ Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
83 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	B	2025	2026	2027	2028	2029	2030
CON-13950	S4 - Wall G-1 - Cure Section 1	7	03-Jul-27	09-Jul-27	467	0							
CON-13980	S4 - Wall G-1 - Strip Panels Section 1	2	06-Jul-27	07-Jul-27	380	4							
Const | St 4 | Sep Access | Seg G | Ret Fill Sta 15+12 to Sta 18+04 | Wall G-1 | Section 2		5	06-Jul-27	10-Jul-27	353	0							
CON-13930	S4 - Wall G-1 - FRP Panels Section 2	4	08-Jul-27	09-Jul-27	311	2							
CON-13960	S4 - Wall G-1 - Cure Section 2	7	10-Jul-27	16-Jul-27	460	-2							
CON-13990	S4 - Wall G-1 - Strip Panels Section 2	2	12-Jul-27	13-Jul-27	356	3							
Const | St 4 | Sep Access | Seg G | Ret Fill Sta 15+12 to Sta 18+04 | Wall G-1 | Finishes		5	19-Jul-27	23-Jul-27	352	2							
CON-14470	S4 - Wall G-1 - Surface Finish Front Face / Install Arch Finishes	5	19-Jul-27	23-Jul-27	353	2							
Const | St 4 | Sep Access | Seg G | Ret Fill Sta 15+12 to Sta 18+04 | Wall G-2		41		05-Aug-27	423	2							
Const | St 4 | Sep Access | Seg G | Ret Fill Sta 15+12 to Sta 18+04 | Wall G-2 | Footing A				07-Jul-27		0							
CON-14000	S4 - Wall G-2 - Fig A - Prep Work Pad for CIDH / Remove Ex Pymnts / Excavate	4	08-Jun-27	14-Jun-27	140	-14							
CON-14020	S4 - Wall G-2 - Fig A - Install CIDH Shafts	5	15-Jun-27	21-Jun-27	140	2							
CON-14030	S4 - Wall G-2 - Fig A - Cure CIDH Shafts	7	22-Jun-27	28-Jun-27	448	2							
CON-14050	S4 - Wall G-2 - Fig A - Sandblast CIDH	1	28-Jun-27	23-Jun-27	303	7							
CON-14040	S4 - Wall G-2 - Fig A - Fine Grade for Fig	2	24-Jun-27	25-Jun-27	303	4							
CON-14080	S4 - Wall G-2 - Fig A - FRP Footing	5	29-Jun-27	06-Jul-27	302	1							
CON-14080	S4 - Wall G-2 - Fig A - Backfill to Top of Fig	1	07-Jul-27	07-Jul-27	302	-1							
Const | St 4 | Sep Access | Seg G | Ret Fill Sta 15+12 to Sta 18+04 | Wall G-2 | Footing B		13	15-Jun-27	10-Jul-27	305	16							
CON-14070	S4 - Wall G-2 - Fig B - Prep Work Pad & Excavate	3	15-Jun-27	17-Jun-27	305	13							
CON-14100	S4 - Wall G-2 - Fig B - Perform Sol Correction	2	18-Jun-27	21-Jun-27	305	17							
CON-14090	S4 - Wall G-2 - Fig B - Fine Grade for Fig	2	22-Jun-27	23-Jun-27	305	12							
CON-14110	S4 - Wall G-2 - Fig B - FRP Footing	5	24-Jun-27	30-Jun-27	305	13							
CON-14150	S4 - Wall G-2 - Fig B - Backfill to Top of Fig	1	01-Jul-27	01-Jul-27	305	16							
Const | St 4 | Sep Access | Seg G | Ret Fill Sta 15+12 to Sta 18+04 | Wall G-2 | Section 1		0	08-Jul-27	20-Jul-27	302	6							
CON-14120	S4 - Wall G-2 - FRP Panels Section 1	4	08-Jul-27	13-Jul-27	302	3							
CON-14160	S4 - Wall G-2 - Cure Section 1	7	14-Jul-27	20-Jul-27	447	-4							
CON-14200	S4 - Wall G-2 - Strip Panels Section 1	2	15-Jul-27	16-Jul-27	302	2							
Const | St 4 | Sep Access | Seg G | Ret Fill Sta 15+12 to Sta 18+04 | Wall G-2 | Section 2		1	18-Jul-27	23-Jul-27	307	1							
CON-14130	S4 - Wall G-2 - FRP Panels Section 2	6	08-Jul-27	15-Jul-27	307	3							
CON-14170	S4 - Wall G-2 - Cure Section 2	7	16-Jul-27	22-Jul-27	454	-1							
CON-14210	S4 - Wall G-2 - Strip Panels Section 2	2	19-Jul-27	20-Jul-27	309	3							
Const | St 4 | Sep Access | Seg G | Ret Fill Sta 15+12 to Sta 18+04 | Wall G-2 | Section 3		9	19-Jul-27	29-Jul-27	302	-2							
CON-14140	S4 - Wall G-2 - FRP Panels Section 3	4	19-Jul-27	22-Jul-27	302	1							
CON-14180	S4 - Wall G-2 - Cure Section 3	7	23-Jul-27	29-Jul-27	447	-5							
CON-14220	S4 - Wall G-2 - Strip Panels Section 3	2	26-Jul-27	27-Jul-27	304	0							
Const | St 4 | Sep Access | Seg G | Ret Fill Sta 15+12 to Sta 18+04 | Wall G-2 | Finishes		5	30-Jul-27	05-Aug-27	423	2							
CON-14480	S4 - Wall G-2 - Surface Finish Front Face / Install Arch Finishes	5	30-Jul-27	05-Aug-27	423	2							
Const | St 4 | Sep Access | Seg G | Ret Fill Sta 15+12 to Sta 18+04 | Rdwy Section		51	30-Jul-27	11-Oct-27	268	3							
CON-14920	S4 - G 15+12 to 18+04 - Place, Contour & Grade Wall BF & Ramp Embankment	11	30-Jul-27	13-Aug-27	302	7							
CON-14930	S4 - G 15+12 to 18+04 - Install Drainage Pipe & Appurtenances	5	16-Aug-27	20-Aug-27	302	7							
CON-14940	S4 - G 15+12 to 18+04 - Install Drainage Boxes & Appurtenances	10	19-Aug-27	01-Sep-27	302	7							
CON-14980	S4 - G 15+12 to 18+04 - Fine Grade Subgrade	3	02-Sep-27	07-Sep-27	302	7							

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

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Remaining Work
 Critical Remaining Work
 Milestone

Summary

Skanska-Flatiron Joint Venture
 ATMP Rdwy Imp | Baseline Schedule | Schematic Design RD - Update 16
 86 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
CON-14950	S4 - G 15+12 to 18+04 - FRP Traffic Barrier	5	08-Sep-27	14-Sep-27	302	7							
CON-14960	S4 - G 15+12 to 18+04 - Place & Fine Grade Agg Base	4	15-Sep-27	20-Sep-27	302	7							
CON-14970	S4 - G 15+12 to 18+04 - Place HMA Pavement	1	21-Sep-27	21-Sep-27	302	7							
CON-20870	S4 - Seg G - Construct Final Roadway Finishes	10	28-Sep-27	11-Oct-27	298	3							
Const | St 4 | Sep Access | Seg G | At Grade Sta 18+04 to Sta 21+56		25	23-Aug-27	27-Sep-27	298	-9							
CON-20650	S4 - G 18+04 to 21+56 - Remove Pavements & Hardscapes	4	23-Aug-27	26-Aug-27	298	-9							
CON-20680	S4 - G 18+04 to 21+56 - Perform Roadway Excavation	2	27-Aug-27	30-Aug-27	298	-9							
CON-20690	S4 - G 18+04 to 21+56 - Install Storm Drainage & Appurtenances	8	31-Aug-27	10-Sep-27	298	-9							
CON-20730	S4 - G 18+04 to 21+56 - Grade for Flatwork & Barriers	2	13-Sep-27	14-Sep-27	298	-9							
CON-20740	S4 - G 18+04 to 21+56 - Place Flatwork & Barriers	5	18-Sep-27	21-Sep-27	298	-9							
CON-20770	S4 - G 18+04 to 21+56 - Prep Subgrade & Place Agg Base	3	22-Sep-27	24-Sep-27	298	-9							
CON-20780	S4 - G 18+04 to 21+56 - Place Pavement	1	27-Sep-27	27-Sep-27	298	-9							
Const | St 4 | Sep Access | Seg H													
Const | St 4 | Sep Access | Seg H | At Grade Sta 10+50 to Sta 23+25		75	23-Aug-27	14-Dec-27	278	-17							
CON-31460	S4 - H 10+50 to 23+25 - Remove Pavements & Hardscapes	4	23-Aug-27	26-Aug-27	278	-18							
CON-31390	S4 - H 10+50 to 23+25 - Perform Roadway Excavation	4	27-Aug-27	01-Sep-27	278	-18							
CON-31450	S4 - H 10+50 to 23+25 - Install Storm Drainage & Appurtenances	20	02-Sep-27	30-Sep-27	278	-18							
CON-31400	S4 - H 10+50 to 23+25 - Grade for Flatwork & Barriers	3	01-Oct-27	05-Oct-27	278	-18							
CON-31410	S4 - H 10+50 to 23+25 - Place Flatwork & Barriers	10	06-Oct-27	19-Oct-27	278	-18							
CON-31420	S4 - H 10+50 to 23+25 - Prep Subgrade & Place Agg Base	13	20-Oct-27	05-Nov-27	278	-18							
CON-31430	S4 - H 10+50 to 23+25 - Place Pavement	1	08-Nov-27	08-Nov-27	278	-18							
CON-31440	S4 - H 10+50 to 23+25 - Construct Final Roadway Finishes	20	09-Nov-27	14-Dec-27	278	-17							
Const | St 4 | Cen Access													
Const | St 4 | Cen Access | Demolition													
CON-47521	S4 - Establish MOT Measures Century for Abut A4	2	28-May-26	29-May-26	150								
CON-35360	S4 - Establish MOT Measures Sepulveda Median FW Bents	2	14-Jan-27	15-Jan-27	48	234							
CON-35370	S4 - Demo Existing Med Barrier Sepulveda @ Bridges I, K, & P	3	18-Jan-27	20-Jan-27	48	308							
CON-35350	S4 - Demo Existing Hook Ramp Bridge - Enabling Work Seg I, K & P	10	17-May-27	28-May-27	0	-5							
Const | St 4 | Cen Access | LAWA Box Culvert South of Century		98	17-May-27	04-Oct-27	240								
Const | St 4 | Cen Access | LAWA Box Culvert South of Century - Line B RCP - Off Line		63	17-May-27	13-Aug-27	68								
UTIL-12050	Util Relo - LAWA Box Culvert - Line B - Install SOE B Sta 1+50 to Sta 2+80	5	17-May-27	21-May-27	68								
UTIL-11810	Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF 54" RCP B Sta 1+50 to Sta 2+80 - Section 1	5	24-May-27	28-May-27	68								
UTIL-12080	Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF 54" RCP B Sta 1+50 to Sta 2+80 - Section 2	5	01-Jun-27	07-Jun-27	68								
UTIL-12070	Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF 54" RCP B Sta 1+50 to Sta 2+80 - Section 3	5	08-Jun-27	14-Jun-27	68								
UTIL-11850	Util Relo - LAWA Box Culvert - Line B - FRP Manhole @ 2a/2b Transition	5	15-Jun-27	21-Jun-27	68								
UTIL-11860	Util Relo - LAWA Box Culvert - Line B - Remove SOE Pipe B Sta 1+50 to Sta 2+80	10	22-Jun-27	06-Jul-27	68								
UTIL-12080	Util Relo - LAWA Box Culvert - Line B - Install SOE B Sta 2+80 to Sta 3+50	3	07-Jul-27	08-Jul-27	68								
UTIL-11870	Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF 42" RCP B Sta 2+80 to Sta 3+50	10	12-Jul-27	23-Jul-27	68								
UTIL-11880	Util Relo - LAWA Box Culvert - Line B - Remove SOE & Backfill Pipe B Sta 2+80 to Sta 3+50	3	26-Jul-27	28-Jul-27	68								
UTIL-12090	Util Relo - LAWA Box Culvert - Line B - Install SOE Line B	2	29-Jul-27	30-Jul-27	68								
UTIL-11890	Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF RCP Line B	3	02-Aug-27	04-Aug-27	68								
UTIL-11900	Util Relo - LAWA Box Culvert - Line B - FRP Manhole @ Line B Tie In to Existing	5	05-Aug-27	11-Aug-27	68								
Const | St 4 | Cen Access | Demolition													
S4 - Establish MOT Measures Century for Abut A4													
S4 - Establish MOT Measures Sepulveda Median FW Bents													
S4 - Demo Existing Med Barrier Sepulveda @ Bridges I, K, & P													
S4 - Demo Existing Hook Ramp Bridge - Enabling Work Seg I, K & P													
04-Oct-27, Const | St 4 | Cen Access | LAWA Box Culvert South of Century													
13-Aug-27, Const | St 4 | Cen Access | LAWA Box Culvert South of Century													
Util Relo - LAWA Box Culvert - Line B - Install SOE B Sta 1+50 to Sta 2+80													
Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF 54" RCP B Sta 1+50 to Sta 2+80 - Section 1													
Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF 54" RCP B Sta 1+50 to Sta 2+80 - Section 2													
Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF 54" RCP B Sta 1+50 to Sta 2+80 - Section 3													
Util Relo - LAWA Box Culvert - Line B - FRP Manhole @ 2a/2b Transition													
Util Relo - LAWA Box Culvert - Line B - Remove SOE Pipe B Sta 1+50 to Sta 2+80													
Util Relo - LAWA Box Culvert - Line B - Install SOE B Sta 2+80 to Sta 3+50													
Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF 42" RCP B Sta 2+80 to Sta 3+50													
Util Relo - LAWA Box Culvert - Line B - Remove SOE & Backfill Pipe B Sta 2+80 to Sta 3+50													
Util Relo - LAWA Box Culvert - Line B - Install SOE Line B													
Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF RCP Line B													
Util Relo - LAWA Box Culvert - Line B - FRP Manhole @ Line B Tie In to Existing													

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

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Remaining Work
Critical Remaining Work
Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
87 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	Est. Vol. - BL	2025 2026 2027 2028 2029 2030											
						JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
UTIL-11910	Util Relo - LAWA Box Culvert - Line B - Remove SOE Pipe Line B	2	12-Aug-27	13-Aug-27	58												
Const | St 4 | Cen Access | LAWA Box Culvert So of Century - Line B RCP - West Tie In to RCP		32	11-Aug-27	24-Sep-27	0												
UTIL-11990	Util Relo - LAWA Box Culvert - Line B - Exc & Shore for West Tie In	5	1-Aug-27	17-Aug-27	0												
UTIL-12000	Util Relo - LAWA Box Culvert - Line B - Sawcut & Remove Existing Box West	2	18-Aug-27	19-Aug-27	0												
UTIL-12010	Util Relo - LAWA Box Culvert - Line B - Exc Lay/BF Remaining B Sta 2+80 to Sta 3+50 RCP @ West Tie In	5	20-Aug-27	26-Aug-27	0												
UTIL-12100	Util Relo - LAWA Box Culvert - Line B - Exc Lay/BF Remaining B Sta 2+80 to Sta 3+50 RCP @ West Tie In	5	27-Aug-27	02-Sep-27	0												
UTIL-12110	Util Relo - LAWA Box Culvert - Line B - Exc Lay/BF Remaining B Sta 2+80 to Sta 3+50 RCP @ West Tie In	5	03-Sep-27	10-Sep-27	0												
UTIL-12020	Util Relo - LAWA Box Culvert - Line B - FRP Manhole @ West Tie In	5	13-Sep-27	17-Sep-27	0												
UTIL-12030	Util Relo - LAWA Box Culvert - Line B - Remove SOE @ West Tie In	5	20-Sep-27	24-Sep-27	0												
Const | St 4 | Cen Access | LAWA Box Culvert So of Century - Line B RCP - Ex Box Culvert Removals		6	27-Sep-27	04-Oct-27	246												
UTIL-11970	Util Relo - LAWA Box Culvert - Line B - Remove Ex RCP @ D2-A13	1	27-Sep-27	27-Sep-27	0												
UTIL-12040	Util Relo - LAWA Box Culvert - Line B - Remove Ex RCB @ K Walls	2	28-Sep-27	28-Sep-27	0												
UTIL-11840	Util Relo - LAWA Box Culvert - Line B - Remove Ex RCP @ D2-B12	1	30-Sep-27	30-Sep-27	35												
UTIL-12120	Util Relo - LAWA Box Culvert - Line B - Remove Remaining Ex RCP	2	01-Oct-27	04-Oct-27	246												
Const | St 4 | Cen Access | Seg 1																	
Const | St 4 | Cen Access | Seg 1 | At Grade Sta 10+00 to Sta 17+50		28	19-Jul-27	26-Aug-27	68												
CON-31740	S4 - 10+00 to 17+50 - Remove Pavements & Hardscapes	2	19-Jul-27	20-Jul-27	68												
CON-31690	S4 - 10+00 to 17+50 - Perform Roadway Excavation	2	21-Jul-27	22-Jul-27	68												
CON-31730	S4 - 10+00 to 17+50 - Install Storm Drainage & Appurtenances	10	23-Jul-27	05-Aug-27	68												
CON-31700	S4 - 10+00 to 17+50 - Grade for Flatwork & Barriers	2	08-Aug-27	09-Aug-27	68												
CON-31710	S4 - 10+00 to 17+50 - Place Flatwork & Barriers	4	10-Aug-27	13-Aug-27	68												
CON-31720	S4 - 10+00 to 17+50 - Prep Subgrade & Place Agg Base	9	16-Aug-27	26-Aug-27	68												
Const | St 4 | Cen Access | Seg 1 | At Grade Sta 17+50 to Sta 21+44		22	24-Nov-27	07-Jan-28	0												
CON-31311	S4 - 17+50 to 21+44 - Fine Grade Subgrade	2	24-Nov-27	30-Nov-27	0												
CON-31340	S4 - 17+50 to 21+44 - Prep Subgrade & Place Agg Base	4	01-Dec-27	07-Dec-27	0												
CON-31350	S4 - 17+50 to 21+44 - Place Pavement	1	09-Dec-27	09-Dec-27	0												
CON-31330	S4 - 17+50 to 21+44 - FRP Traffic Barriers	4	10-Dec-27	16-Dec-27	0												
CON-31360	S4 - 17+50 to 21+44 - Construct Final Roadway Finishes	10	17-Dec-27	07-Jan-28	0												
Const | St 4 | Cen Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32		374	02-Jun-26	08-Dec-27	3												
Const | St 4 | Cen Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub		149	02-Jun-26	14-Jan-27	223												
Const | St 4 | Cen Access | Seg 1 | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | A1																	
CON-29550	S4 - I - A1 - Prep Work Pad For CIDH	1	26-Oct-26	26-Oct-26	54												
CON-29560	S4 - I - A1 - Install CIDH Shaft(s)	7	04-Nov-26	13-Nov-26	48												
CON-29540	S4 - I - A1 - Cure CIDH	7	14-Nov-26	20-Nov-26	96												
CON-29400	S4 - I - A1 - Excavate Footing	4	16-Nov-26	19-Nov-26	48												
CON-29530	S4 - I - A1 - Prep CIDH For Footing Construction	3	20-Nov-26	24-Nov-26	48												
CON-29410	S4 - I - A1 - Form Footing/Dowel Template	3	25-Nov-26	32-Dec-26	48												
CON-29420	S4 - I - A1 - Place Rebar	3	03-Dec-26	38-Dec-26	48												
CON-29430	S4 - I - A1 - Place Footing Concrete	1	09-Dec-26	09-Dec-26	48												
CON-29440	S4 - I - A1 - Cure Footing Concrete	7	10-Dec-26	16-Dec-26	86												
CON-29450	S4 - I - A1 - Strip Footing Forms/Dowel Template	1	10-Dec-26	10-Dec-26	48												
CON-29460	S4 - I - A1 - Blast/Prep For Stems & Wings	1	11-Dec-26	11-Dec-26	48												

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

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■ Remaining Work
■ Critical Remaining Work
◆ Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
88 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var - BL	2025 2026 2027 2028 2029 2030											
							JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
CON-29470	S4 - I - I-A1 - Form 1S Stems/Wings/Backwall	3	15-Dec-26	17-Dec-26	48	-176												
CON-29480	S4 - I - I-A1 - Place Stem & Wing Rebar	3	18-Dec-26	29-Dec-26	48	-176												
CON-29490	S4 - I - I-A1 - Form 2S Stems & Wings	2	30-Dec-26	31-Dec-26	48	-176												
CON-29500	S4 - I - I-A1 - Place Stem & Wing Concrete	1	04-Jan-27	04-Jan-27	46	-176												
CON-29510	S4 - I - I-A1 - Cure Stem & Wing Concrete	7	05-Jan-27	11-Jan-27	69	-269												
CON-29520	S4 - I - I-A1 - Strip Stem & Wing Forms / Rough Surface Finish	2	12-Jan-27	13-Jan-27	46	-176												
CON-29970	S4 - I - I-A1 - Backfill	1	14-Jan-27	14-Jan-27	220	-176												
Const | St 4 | Can Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B2		37			159	30												
Const | St 4 | Can Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B2L																		
CON-29570	S4 - I - I-B2L - Prep Work Pad For Type 2 Shaft	1	02-Jun-26	02-Jun-26	12	-5												
CON-29580	S4 - I - I-B2L - Install CIDH Shaft(s)	4	18-Jun-26	23-Jun-26	1	80												
CON-29590	S4 - I - I-B2L - Cure Shaft	7	24-Jun-26	30-Jun-26	247	114												
CON-29600	S4 - I - I-B2L - Prep Transition Zone/Set Column Cage & Guy	4	24-Jun-26	29-Jun-26	163	80												
CON-29610	S4 - I - I-B2L - Place Transition Zone Concrete	1	01-Jul-26	01-Jul-26	162	80												
CON-29620	S4 - I - I-B2L - Cure Transition Zone Concrete	7	02-Jul-26	08-Jul-26	249	114												
CON-29630	S4 - I - I-B2L - Form Column	3	02-Jul-26	07-Jul-26	168	80												
CON-29670	S4 - I - I-B2L - Connect Thermal Control System	1	08-Jul-26	08-Jul-26	168	90												
CON-29640	S4 - I - I-B2L - Place Column Concrete	1	09-Jul-26	09-Jul-26	163	81												
CON-29650	S4 - I - I-B2L - Cure Column Concrete	7	10-Jul-26	16-Jul-26	249	119												
CON-29660	S4 - I - I-B2L - Strip Column Forms 1 Day Minimum Removal	1	17-Jul-26	17-Jul-26	163	81												
Const | St 4 | Can Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B2R																		
CON-30060	S4 - I - I-B2R - Prep Work Pad For Type 2 Shaft	1	03-Jun-26	03-Jun-26	15	81												
CON-30090	S4 - I - I-B2R - Install CIDH Shaft(s)	4	24-Jun-26	29-Jun-26	1	80												
CON-30100	S4 - I - I-B2R - Cure Shaft	7	30-Jun-26	06-Jul-26	241	114												
CON-30110	S4 - I - I-B2R - Prep Transition Zone/Set Column Cage & Guy	4	30-Jun-26	06-Jul-26	159	80												
CON-30120	S4 - I - I-B2R - Place Transition Zone Concrete	1	07-Jul-26	07-Jul-26	150	81												
CON-30130	S4 - I - I-B2R - Cure Transition Zone Concrete	7	08-Jul-26	14-Jul-26	243	114												
CON-30140	S4 - I - I-B2R - Form Column	3	08-Jul-26	10-Jul-26	160	81												
CON-30180	S4 - I - I-B2R - Connect Thermal Control System	1	13-Jul-26	13-Jul-26	160	81												
CON-30150	S4 - I - I-B2R - Place Column Concrete	1	15-Jul-26	15-Jul-26	159	81												
CON-30160	S4 - I - I-B2R - Cure Column Concrete	7	16-Jul-26	22-Jul-26	243	114												
CON-30170	S4 - I - I-B2R - Strip Column Forms 1 Day Minimum Removal	1	23-Jul-26	23-Jul-26	159	80												
Const | St 4 | Can Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B3																		
Const | St 4 | Can Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B3L																		
CON-29680	S4 - I - I-B3L - Prep Work Pad For Type 2 Shaft	1	04-Jun-26	04-Jun-26	18	-7												
CON-29690	S4 - I - I-B3L - Install CIDH Shaft(s)	4	30-Jun-26	06-Jul-26	1	84												
CON-29700	S4 - I - I-B3L - Cure Shaft	7	07-Jul-26	13-Jul-26	234	91												
CON-29710	S4 - I - I-B3L - Prep Transition Zone/Set Column Cage & Guy	4	07-Jul-26	10-Jul-26	155	64												
CON-29720	S4 - I - I-B3L - Place Transition Zone Concrete	1	14-Jul-26	14-Jul-26	154	64												
CON-29730	S4 - I - I-B3L - Cure Transition Zone Concrete	7	15-Jul-26	21-Jul-26	236	91												
CON-29740	S4 - I - I-B3L - Form Column	3	15-Jul-26	17-Jul-26	155	64												
CON-29780	S4 - I - I-B3L - Connect Thermal Control System	1	20-Jul-26	20-Jul-26	165	64												
Const | St 4 | Can Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B3R																		
CON-29750	S4 - I - I-B3R - Prep Work Pad For Type 2 Shaft	1	04-Jun-26	04-Jun-26	18	-7												
CON-29760	S4 - I - I-B3R - Install CIDH Shaft(s)	4	30-Jun-26	06-Jul-26	1	84												
CON-29770	S4 - I - I-B3R - Cure Shaft	7	07-Jul-26	13-Jul-26	234	91												
CON-29790	S4 - I - I-B3R - Prep Transition Zone/Set Column Cage & Guy	4	07-Jul-26	10-Jul-26	155	64												
CON-29800	S4 - I - I-B3R - Place Transition Zone Concrete	1	14-Jul-26	14-Jul-26	154	64												
CON-29810	S4 - I - I-B3R - Cure Transition Zone Concrete	7	15-Jul-26	21-Jul-26	236	91												
CON-29820	S4 - I - I-B3R - Form Column	3	15-Jul-26	17-Jul-26	155	64												
CON-29830	S4 - I - I-B3R - Connect Thermal Control System	1	20-Jul-26	20-Jul-26	165	64												

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

■ Remaining Level of Effort
■ Actual Level of Effort
■ Actual Work
■ Remaining Work
■ Critical Remaining Work
◆ Milestone

→ Su...

Skanska-Flariron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
89 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
CON-29750	S4 - I - B3L - Place Column Concrete	1	22-Jul-26	22-Jul-26	154	64							
CON-29760	S4 - I - B3L - Cure Column Concrete	7	23-Jul-26	29-Jul-26	236	91							
CON-29770	S4 - I - B3L - Strip Column Forms 1 Day Minimum Removal	1	30-Jul-26	30-Jul-26	154	64							
Const | St 4 | Cen Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | B3R													
CON-30190	S4 - I - B3R - Prep Work Pad For Type 2 Shaft	1	05-Jun-26	05-Jun-26	21	81							
CON-30200	S4 - I - B3R - Install CIDH Shaft(s)	4	07-Jul-26	10-Jul-26	1	84							
CON-30210	S4 - I - B3R - Cure Shaft	7	11-Jul-26	17-Jul-26	230	91							
CON-30220	S4 - I - B3R - Prep Transition Zone/Set Column Cage & Guy	4	13-Jul-26	16-Jul-26	151	64							
CON-30230	S4 - I - B3R - Place Transition Zone Concrete	1	20-Jul-26	20-Jul-26	150	64							
CON-30240	S4 - I - B3R - Cure Transition Zone Concrete	7	21-Jul-26	27-Jul-26	230	91							
CON-30250	S4 - I - B3R - Form Column	3	21-Jul-26	23-Jul-26	151	64							
CON-30290	S4 - I - B3R - Connect Thermal Control System	1	24-Jul-26	24-Jul-26	151	64							
CON-30260	S4 - I - B3R - Place Column Concrete	1	28-Jul-26	28-Jul-26	150	64							
CON-30270	S4 - I - B3R - Cure Column Concrete	7	29-Jul-26	04-Aug-26	230	91							
CON-30280	S4 - I - B3R - Strip Column Forms 1 Day Minimum Removal	1	05-Aug-26	05-Aug-26	150	64							
Const | St 4 | Cen Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Fndtns & Sub | A4													
CON-29540	S4 - I - A4 - Prep Work Pad For CIDH	1	19-Aug-26	19-Aug-26	84	-124							
CON-29550	S4 - I - A4 - Install CIDH Shaft(s)	7	26-Oct-26	03-Nov-26	48	-170							
CON-29790	S4 - I - A4 - Excavate Footing	4	31-Nov-26	06-Nov-26	80	-170							
CON-29930	S4 - I - A4 - Cure CIDH	7	24-Nov-26	10-Nov-26	113	-243							
CON-29920	S4 - I - A4 - Prep CIDH For Footing Construction	3	10-Nov-26	13-Nov-26	80	-170							
CON-29800	S4 - I - A4 - Form Footing/Dowel Template	3	16-Nov-26	18-Nov-26	60	-170							
CON-29810	S4 - I - A4 - Place Rebar	9	16-Nov-26	23-Nov-26	60	-170							
CON-29820	S4 - I - A4 - Place Footing Concrete	1	24-Nov-26	24-Nov-26	60	-170							
CON-29830	S4 - I - A4 - Cure Footing Concrete	7	25-Nov-26	01-Dec-26	107	-244							
CON-29840	S4 - I - A4 - Strip Footing Forms/Dowel Template	1	25-Nov-26	25-Nov-26	60	-170							
CON-29850	S4 - I - A4 - Blast/Prep For Stems & Wings	1	01-Dec-26	01-Dec-26	60	-170							
CON-29860	S4 - I - A4 - Form 1S Stems/Wings/Backwall	3	02-Dec-26	04-Dec-26	80	-170							
CON-29870	S4 - I - A4 - Place Stem & Wing Rebar	3	08-Dec-26	10-Dec-26	60	-170							
CON-29880	S4 - I - A4 - Form 2S Stems & Wings	2	11-Dec-26	15-Dec-26	80	-170							
CON-29890	S4 - I - A4 - Place Stem & Wing Concrete	1	18-Dec-26	18-Dec-26	80	-170							
CON-29900	S4 - I - A4 - Cure Stem & Wing Concrete	7	17-Dec-26	23-Dec-26	244	-251							
CON-29910	S4 - I - A4 - Strip Stem & Wing Forms / Rough Surface Finish	2	17-Dec-26	18-Dec-26	80	-170							
CON-29980	S4 - I - A4 - Backfill	1	28-Dec-26	28-Dec-26	285	-187							
Const | St 4 | Cen Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Sup													
Const | St 4 | Cen Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Sup | FW													
CON-40710	S4 - I - FW - Install Grillage/Bents/Bent Caps/Posts/Stringers Span 1	2	14-Jan-27	15-Jan-27	51								
CON-46300	S4 - I - FW - Install Grillage/Bents/Bent Caps/Posts/Stringers Span 2 NB	2	21-Jan-27	22-Jan-27	48								
CON-46310	S4 - I - FW - Install Grillage/Bents/Bent Caps/Posts/Stringers Span 2 SB	2	25-Jan-27	26-Jan-27	48								
CON-46320	S4 - I - FW - Install Grillage/Bents/Bent Caps/Posts/Stringers Span 3	2	27-Jan-27	28-Jan-27	48								
CON-46330	S4 - I - FW - Remove Grillage/Bents/Bent Caps/Posts/Stringers Span 1	2	16-Jul-27	19-Jul-27	48								
CON-46340	S4 - I - FW - Remove Grillage/Bents/Bent Caps/Posts/Stringers Span 2 NB	2	20-Jul-27	21-Jul-27	48								

Date Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
Actual Level of Effort
Actual Work

Remaining Work
Critical Remaining Work
Milestone

Skanska-Flatiron Joint Venture
ATMP Rowy Imp Baseline Schedule | Schematic Design R0 - Update 16
80 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Start Duration	Finish	IF Var - BL	2025 2026 2027 2028 2029 2030											
					JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
CON-49141	S4 - I - PT - Strip Backwater Forms/Clean Bridge Seat 1 Day Minimum Removal I-A4	1	28-Jul-27	29-Jul-27	01											
Const | St 4 | Cen Access | Seg I | Bridge Sta 21+44 to Sta 24+32 | Finishes		90	28-Jul-27	08-Dec-27	3											
CON-10740	S4 - Br I - FRP Bridge Rail	7	28-Jul-27	08-Aug-27	48											
CON-15280	S4 - Br I - FRP Approach Slab I-A4	5	21-Sep-27	27-Sep-27	50											
CON-15270	S4 - Br I - FRP Approach Slab I-A1	6	21-Dec-27	08-Dec-27	0											
Const | St 4 | Cen Access | Seg I | At Grade Sta 24+32 to Century Tie In		58	28-Jul-27	08-Dec-27	48											
CON-31220	S4 - I24+32 to Tie In - Remove Pavements & Hardscapes	4	06-Aug-27	11-Aug-27	48											
CON-31230	S4 - I24+32 to Tie In - Perform Roadway Excavation	4	12-Aug-27	17-Aug-27	48											
CON-31240	S4 - I24+32 to Tie In - Install Storm Drainage & Appurtenances	20	18-Aug-27	15-Sep-27	48											
CON-31250	S4 - I24+32 to Tie In - Grade for Flatwork & Barriers	3	16-Sep-27	20-Sep-27	48											
CON-31260	S4 - I24+32 to Tie In - Place Flatwork & Barriers	3	21-Sep-27	23-Sep-27	48											
CON-31270	S4 - I24+32 to Tie In - Prep Subgrade & Place Agg Base	4	24-Sep-27	28-Sep-27	48											
CON-31280	S4 - I24+32 to Tie In - Place Pavement	2	30-Sep-27	01-Oct-27	48											
CON-31290	S4 - I24+32 to Tie In - Construct Final Roadway Finishes	10	04-Oct-27	15-Oct-27	48											
Const | St 4 | Cen Access | Seg K		204	30-Sep-27	01-Aug-28	122											
Const | St 4 | Cen Access | Seg K | Retained Fill Sta 52+06 to Sta 54+55		204	30-Sep-27	01-Aug-28	122											
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-1		56	07-Oct-27	10-Jan-28	188											
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-1 | CIDH		15	07-Oct-27	07-Oct-27	188											
CON-35420	S4 - Wall K-1 - Prep Work Pad for CIDH / Remove Ex Pymnts	2	07-Oct-27	08-Oct-27	85											
CON-35430	S4 - Wall K-1 - Install CIDH Shafts	4	15-Oct-27	20-Oct-27	81											
CON-35440	S4 - Wall K-1 - Final Cure CIDH Shafts	7	21-Oct-27	27-Oct-27	293											
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-1 | Section 1					193											
CON-35450	S4 - Wall K-1 - Excavate/Sandblast/Fine Grd for Footing Section 1	5	08-Nov-27	15-Nov-27	87											
CON-35480	S4 - Wall K-1 - FRP Footing Section 1	5	16-Nov-27	22-Nov-27	187											
CON-35510	S4 - Wall K-1 - FRP Panels Section 1	4	01-Dec-27	07-Dec-27	87											
CON-35540	S4 - Wall K-1 - Cure Section 1	1	08-Dec-27	08-Dec-27	286											
CON-35570	S4 - Wall K-1 - Strip Panels Section 1	2	09-Dec-27	10-Dec-27	193											
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-1 | Section 2					187											
CON-35460	S4 - Wall K-1 - Over Excavate for Footing Section 2	2	15-Nov-27	17-Nov-27	97											
CON-49481	S4 - Wall K-1 - Place Soil Correction for Footing Section 2	2	18-Nov-27	19-Nov-27	187											
CON-49491	S4 - Wall K-1 - Excavate Keyway/ Fine Grd for Footing Section 2	1	22-Nov-27	22-Nov-27	187											
CON-35490	S4 - Wall K-1 - FRP Footing Section 2	3	23-Nov-27	30-Nov-27	187											
CON-35520	S4 - Wall K-1 - FRP Panels Section 2	6	08-Dec-27	16-Dec-27	187											
CON-35550	S4 - Wall K-1 - Cure Section 2	1	17-Dec-27	17-Dec-27	277											
CON-35580	S4 - Wall K-1 - Strip Panels Section 2	2	27-Dec-27	28-Dec-27	187											
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-1 | Finishes		3	29-Dec-27	10-Jan-28	186											
CON-49501	S4 - Wall K-1 - Final Water Cure Panels	5	29-Dec-27	03-Jan-28	268											
CON-36380	S4 - Wall K-1 - Surface Finish Front Face / Install Arch Finishes	5	04-Jan-28	10-Jan-28	186											
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-2		44	30-Sep-27	08-Dec-27	205											
Const | St 4 | Cen Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-2 | CIDH		16	10-Sep-27	21-Oct-27	0											
CON-35600	S4 - Wall K-2 - Install SOE & Prep Work Pad for CIDH	5	30-Sep-27	06-Oct-27	01											
CON-35610	S4 - Wall K-2 - Install CIDH Shafts	5	07-Oct-27	14-Oct-27	0											

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Summary

Skanska-Flatiron Joint Venture
 AAMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
 92 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	2025	2026	2027	2028	2029	2030
							IONDJF A J J A S NDJF A J J A SONDJF A J J A S NDJF A J J A S NDJF A J J A S NDJF A					
CON-35520	S4 - Wall K-2 - Final Cure CIDH Shafts	7	15-Oct-27	21-Oct-27	0	-72						
Const | St 4 | Can Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-2 | Section 1												
CON-35630	S4 - Wall K-2 - Excavate/Sandblast/Fine Grd for Footing Section 1	4	22-Oct-27	27-Oct-27	0	-54						
CON-35650	S4 - Wall K-2 - FRP Footing Section 1	5	28-Oct-27	03-Nov-27	2	-58						
CON-35670	S4 - Wall K-2 - FRP Panels Section 1	4	08-Nov-27	12-Nov-27	0	-55						
CON-35690	S4 - Wall K-2 - Cure Section 1	1	13-Nov-27	13-Nov-27	311	-80						
CON-35710	S4 - Wall K-2 - Strip Panels Section 1	2	15-Nov-27	16-Nov-27	207	-55						
Const | St 4 | Can Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-2 | Section 2												
CON-35840	S4 - Wall K-2 - Over Excavate for Footing Section 2	3	28-Oct-27	01-Nov-27	0	-58						
CON-49511	S4 - Wall K-2 - Place Soil Correction for Footing Section 2	3	02-Nov-27	04-Nov-27	0							
CON-49521	S4 - Wall K-2 - Excavate Keyway/Fine Grd for Footing Section 2	1	05-Nov-27	05-Nov-27	0							
CON-35650	S4 - Wall K-2 - FRP Footing Section 2	4	08-Nov-27	12-Nov-27	0	-59						
CON-35680	S4 - Wall K-2 - FRP Panels Section 2	5	15-Nov-27	19-Nov-27	0	-58						
CON-35700	S4 - Wall K-2 - Cure Section 2	1	20-Nov-27	20-Nov-27	1	-84						
CON-35720	S4 - Wall K-2 - Strip Panels Section 2	2	22-Nov-27	23-Nov-27	0	-58						
Const | St 4 | Can Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Wall K-2 | Finishes												
CON-49531	S4 - Wall K-2 - Final Water Cure Panels	9	24-Nov-27	29-Nov-27	303							
CON-36390	S4 - Wall K-2 - Surface Finish Front Face / Install Arch Finishes	5	30-Nov-27	07-Dec-27	205	-59						
Const | St 4 | Can Access | Seg K | Ret Fill Sta 52+06 to Sta 54+55 | Rdwy Section												
CON-36430	S4 - K 52+06 to 54+55 - Place, Contour & Grade Wall BF & Ramp Embankment	10	13-Jun-28	26-Jun-28	80	-179						
CON-36440	S4 - K 52+06 to 54+55 - Install Drainage Pipe & Appurtenances	5	27-Jun-28	03-Jul-28	122	-179						
CON-36450	S4 - K 52+06 to 54+55 - Install Drainage Boxes & Appurtenances	10	30-Jun-28	14-Jul-28	122	-179						
CON-36490	S4 - K 52+06 to 54+55 - Fine Grade Subgrade	3	17-Jul-28	19-Jul-28	122	-179						
CON-36470	S4 - K 52+06 to 54+55 - Place & Fine Grade Agg Base	4	20-Jul-28	25-Jul-28	122	-89						
CON-36480	S4 - K 52+06 to 54+55 - Place HMA Base Course Pavement	1	26-Jul-28	26-Jul-28	22	-89						
CON-36480	S4 - K 52+06 to 54+55 - FRP Traffic Barrier	4	27-Jul-28	01-Aug-28	22	-98						
Const | Stage 5												
CON-15490	S5 - D - Construct Final Roadway Finishes	33	17-Jul-28	30-Aug-28	41	-42						
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F4												
CON-27230	S5 - D2-F4 - D2-B9 - Install CIDH Shafts	4	10-Jan-28	13-Jan-28	6	-390						
CON-27240	S5 - D2-F4 - D2-B9 - Cure Shaft	7	14-Jan-28	20-Jan-28	18	-588						
CON-27250	S5 - D2-F4 - D2-B9 - Prep Transition Zone/Set Column Cage & Guy	4	14-Jan-28	19-Jan-28	13	-390						
CON-27260	S5 - D2-F4 - D2-B9 - Place Transition Zone Concrete	1	21-Jan-28	21-Jan-28	12	-390						
CON-27270	S5 - D2-F4 - D2-B9 - Cure Transition Zone Concrete	7	22-Jan-28	28-Jan-28	18	-588						
CON-27280	S5 - D2-F4 - D2-B9 - Form Column	3	24-Jan-28	26-Jan-28	13	-390						
CON-27370	S5 - D2-F4 - D2-B9 - Connect Thermal Control System	1	27-Jan-28	27-Jan-28	13	-390						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
 ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
 93 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var - BL	2025	2026	2027	2028	2029	2030
CON-48791	S5 - D2-F4 - PT - Install PT Strands	4	10-Jul-28	10-Jul-28	11							
CON-48801	S5 - D2-F4 - PT - Stress & Lock-off	3	11-Jul-28	13-Jul-28	11							
CON-48811	S5 - D2-F4 - PT - Grout PT Ducts	2	14-Jul-28	17-Jul-28	11							
CON-48821	S5 - D2-F4 - PT - F/P/S PT Blockouts	3	18-Jul-28	20-Jul-28	11							
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F5		547	23-Apr-26	13-Jul-28	58	-94						
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F5 | F & S		378				-258						
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F5 | F & S | Bent D2-B11						33						
CON-32520	S5 - D2-F5 - D2-B11 - Install CIDH Shaft(s)	4	23-Apr-26	28-Apr-26	0	34						
CON-32680	S5 - D2-F5 - D2-B11 - Cure Shaft	7	28-Apr-26	05-May-26	581	49						
CON-32610	S5 - D2-F5 - D2-B11 - Prep Transition Zone/Set Column Cage & Guy	4	29-Apr-26	04-May-26	392	34						
CON-32680	S5 - D2-F5 - D2-B11 - Place Transition Zone Concrete	1	05-May-26	06-May-26	391	34						
CON-32720	S5 - D2-F5 - D2-B11 - Cure Transition Zone Concrete	7	07-May-26	13-May-26	581	49						
CON-32730	S5 - D2-F5 - D2-B11 - Form Column	3	07-May-26	11-May-26	391	34						
CON-32780	S5 - D2-F5 - D2-B11 - Connect Thermal Control System	1	12-May-26	12-May-26	391	34						
CON-32860	S5 - D2-F5 - D2-B11 - Place Column Concrete	1	14-May-26	14-May-26	390	34						
CON-32900	S5 - D2-F5 - D2-B11 - Cure Column Concrete	7	15-May-26	21-May-26	679	49						
CON-32910	S5 - D2-F5 - D2-B11 - Strip Column Forms 1 Day Minimum Removal	1	15-May-26	15-May-26	390	34						
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F5 | F & S | Bent D2-B12						-258						
CON-32690	S5 - D2-F5 - D2-B12 - Install CIDH Shaft(s)	4	01-Oct-27	06-Oct-27	35	-258						
CON-32800	S5 - D2-F5 - D2-B12 - Cure Shaft	7	07-Oct-27	13-Oct-27	55	-364						
CON-32810	S5 - D2-F5 - D2-B12 - Prep Transition Zone/Set Column Cage & Guy	4	07-Oct-27	12-Oct-27	35	-258						
CON-32990	S5 - D2-F5 - D2-B12 - Place Transition Zone Concrete	1	14-Oct-27	14-Oct-27	34	-258						
CON-33010	S5 - D2-F5 - D2-B12 - Cure Transition Zone Concrete	7	15-Oct-27	21-Oct-27	55	-364						
CON-33060	S5 - D2-F5 - D2-B12 - Form Column	3	15-Oct-27	19-Oct-27	34	-258						
CON-33150	S5 - D2-F5 - D2-B12 - Connect Thermal Control System	1	20-Oct-27	20-Oct-27	34	-258						
CON-33270	S5 - D2-F5 - D2-B12 - Place Column Concrete	1	22-Oct-27	22-Oct-27	33	-258						
CON-33340	S5 - D2-F5 - D2-B12 - Cure Column Concrete	7	23-Oct-27	29-Oct-27	153	-382						
CON-33350	S5 - D2-F5 - D2-B12 - Strip Column Forms 1 Day Minimum Removal	1	25-Oct-27	25-Oct-27	33	-258						
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F5 | Sup						-94						
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F5 | Sup | FW						246						
CON-33410	S5 - D2-F5 - FW - Install Grillage/Bents/Bent Caps/Posts	4	18-Nov-27	19-Nov-27	19	-91						
CON-48841	S5 - D2-F5 - FW - Remove Falsework	4	10-Jul-28	13-Jul-28	19							
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Fr D2-F5 | Sup | Soffit/Stair						90						
CON-33590	S5 - D2-F5 - S&S - Install Soffit & Safety Rail	14	22-Nov-27	16-Dec-27	19	-87						
CON-33920	S5 - D2-F5 - S&S - Form Exterior Girder & OH	15	17-Dec-27	14-Jan-28	19	-83						
CON-33990	S5 - D2-F5 - S&S - Place Soffit Rebar	7	30-Dec-27	10-Jan-28	19	-85						
CON-34010	S5 - D2-F5 - S&S - Place Stem Rebar	7	11-Jan-28	18-Jan-28	18	-83						
CON-34020	S5 - D2-F5 - S&S - Install PT Ducts	4	17-Jan-28	20-Jan-28	19	-83						
CON-34030	S5 - D2-F5 - S&S - Form Interior Girder & Walkways	27	21-Jan-28	29-Feb-28	19	-83						
CON-34040	S5 - D2-F5 - S&S - Form Diaphragms & Blockouts	3	01-Mar-28	03-Mar-28	19	-83						
CON-34050	S5 - D2-F5 - S&S - Place Soffit & Stem Concrete	2	05-Mar-28	07-Mar-28	19	-83						
CON-34060	S5 - D2-F5 - S&S - Cure Soffit & Stem Concrete	7	08-Mar-28	14-Mar-28	71	-134						

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

■ Remaining Level of Effort
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■ Actual Work
■ Remaining Work
■ Critical Remaining Work
◆ Milestone

Summary

Skanska-Flatiron Joint Venture
 ATMP Rowing Imp | Baseline Schedule | Schematic Design R0 - Update 16
 95 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	var	BL	2025	2026	2027	2028	2029	2030
CON-34070	S5 - D2-F5 - S&S - Strip Interior Girder Forms & Walkways	9	08-Mar-28	20-Mar-28	19	-60							
CON-34080	S5 - D2-F5 - S&S - Strip Diaphragms	2	21-Mar-28	22-Mar-28	19	-80							
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Pt D2-F5 | Sep | Deck		40	13-Mar-28	17-May-28	18	-81							
CON-34090	S5 - D2-F5 - DECK - Form Lost Deck	10	23-Mar-28	05-Apr-28	19	-76							
CON-34100	S5 - D2-F5 - DECK - Form EOD	6	05-Apr-28	13-Apr-28	19	-74							
CON-34110	S5 - D2-F5 - DECK - Install Screed Rails & Run-Offs	8	07-Apr-28	18-Apr-28	24	-74							
CON-34120	S5 - D2-F5 - DECK - Place Deck Rebar	9	14-Apr-28	25-Apr-28	19	-74							
CON-34130	S5 - D2-F5 - DECK - Set-up Bridge Finishing Machine & Work Bridges	1	19-Apr-28	19-Apr-28	24	-74							
CON-34140	S5 - D2-F5 - DECK - Dry-run Bridge Finishing Machine	1	27-Apr-28	27-Apr-28	19	-74							
CON-34150	S5 - D2-F5 - DECK - Place Bridge Deck Concrete	1	28-Apr-28	28-Apr-28	19	-74							
CON-34160	S5 - D2-F5 - DECK - Cure Bridge Deck Concrete	7	28-Apr-28	05-May-28	27	-102							
CON-49381	S5 - D2-F5 - DECK - Strip Screed Rails & EOD	3	08-May-28	10-May-28	18								
CON-49371	S5 - D2-F5 - DECK - Strip Exterior Girder & OH Forms	5	11-May-28	17-May-28	18								
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Pt D2-F5 | Sup | PT & BW		5	11-May-28	17-May-28	18								
CON-34190	S5 - D2-F5 - PT - Install PT Strands	4	12-May-28	17-May-28	18	-82							
CON-34200	S5 - D2-F5 - PT - Stress & Lock-off	3	16-May-28	22-May-28	18	-81							
CON-34210	S5 - D2-F5 - PT - Grout PT Ducts	2	23-May-28	24-May-28	18	-81							
CON-34230	S5 - D2-F5 - PT - FRP PT Blockouts	3	25-May-28	30-May-28	18	-72							
CON-34240	S5 - D2-F5 - PT - Place Backwall Rebar D2-A13	1	31-May-28	31-May-28	80	-72							
CON-34250	S5 - D2-F5 - PT - Form 2S Backwall D2-A13	1	01-Jun-28	01-Jun-28	80	-72							
CON-34260	S5 - D2-F5 - PT - Place Backwall Concrete D2-A13	1	02-Jun-28	02-Jun-28	80	-72							
CON-34270	S5 - D2-F5 - PT - Cure Backwall Concrete D2-A13	7	03-Jun-28	08-Jun-28	116	-101							
CON-34280	S5 - D2-F5 - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal D2-A13	1	12-Jun-28	12-Jun-28	80	-72							
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Hinges		52	31-May-28										
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Hinge D2-F3/D2-F4		10	21-Jul-28	03-Aug-28	11								
CON-40150	S5 - Br D2 - D2-F3/D2-F4 - FRP Hinge Upper Seat	10	21-Jul-28	03-Aug-28	11								
CON-40160	S5 - Br D2 - D2-F3/D2-F4 - Cure Hinges	10	04-Aug-28	13-Aug-28	15								
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Hinge D2-F4/D2-F5		27	31-May-28	07-Jul-28	16	-63							
CON-28450	S5 - Br D2 - D2-F4/D2-F5 - FRP Hinge Lower Seat	10	31-May-28	13-Jun-28	18	-63							
CON-28440	S5 - Br D2 - D2-F4/D2-F5 - FRP Hinge Upper Seat	10	14-Jun-28	27-Jun-28	18	-63							
CON-28450	S5 - Br D2 - D2-F4/D2-F5 - Cure Hinges	10	28-Jun-28	07-Jul-28	27	-90							
Const | St 5 | Sep Access | Seg D | Bridge Sta 34+90 to Sta 52+06 | Finishes		24	27-Jun-28	23-Aug-28	102	-87							
CON-36780	S5 - Br D2 - FRP Approach Slab D2-A13	5	27-Jun-28	03-Jul-28	136	-82							
CON-10760	S5 - Br D2 - FRP Bridge Rail	21	26-Jul-28	23-Aug-28	11	-87							
Const | St 5 | Sep Access		600	13-Jul-28	25									
Const | St 5 | Sep Access | MOT		24	24-May-28	09-Jan-29	23								
CON-32500	S5 - Establish MOT Measures on Center Way for Seg K Tie-in	2	24-May-28	25-May-28	85	-407							
CON-49881	S5 - Open Segment P in Stage 5 Configuration	2	14-Sep-28	15-Sep-28	0								
CON-32680	S5 - Open Segment K in Stage 5 Configuration	2	05-Jan-29	08-Jan-29	23	-549							
Const | St 5 | Sep Access | Demolition		26	26-Aug-27	24-Apr-28	5								
CON-38460	S5 - Demo Existing SB Sep - EB Cen Loop Ramp - Enabling Work Seg M & N	7	25-Aug-27	02-Sep-27	38	56							
CON-38970	S5 - Establish MOT Measures for Seg P Construction	2	03-Sep-27	07-Sep-27	59	300							

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
 ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
 96 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
CON-32390	S5 - Demo Existing WB Century Pavement - Enabling Work Seg K	10	10-Jan-28	21-Jan-28	2	-72							
CON-32290	S5 - Demo Existing WB Century Over Sepulveda - Enabling Work Seg K & P	10	10-Jan-28	21-Jan-28	0	-72							
CON-47981	S5 - Demo WB Century Temp X-Over	4	10-Jan-28	13-Jan-28	8								
CON-39470	S5 - Demo Existing EB Century Over Sepulveda - Enabling Work Seg M, N & NE	10	18-Sep-28	28-Sep-28	0	-53							
CON-40720	S5 - Demo Existing Arrivals to SB Sepulveda Pavement	5	10-Jan-29	16-Jan-29	56								
CON-40730	S5 - Decommission Existing Departures to SB Sepulveda Ramp	2	23-Apr-29	24-Apr-29	114								
Const | St 5 | Cen Access | Seg K		233	24-Jan-28	05-Jan-29	23	-142							
Const | St 5 | Cen Access | Seg K | Roadway Finishes		102	28-Jul-28	05-Jan-29	23	-142							
CON-38260	S5 - K - Install Light Fixtures Sta 52+06 to Sta 56+16	5	28-Jul-28	03-Aug-28	80	-164							
CON-38380	S5 - K - Install OHS & ITS Gantries	5	04-Aug-28	10-Aug-28	80	-132							
CON-38350	S5 - K - Install OH Wayfinding Signs	5	15-Aug-28	17-Aug-28	80	-128							
CON-38370	S5 - K - Install Light Fixtures Sta 59+61 to Sta 66+34	5	14-Aug-28	18-Aug-28	80	-141							
CON-38400	S5 - K - Place Sidewalks & ADA Ramps	5	15-Aug-28	24-Aug-28	30	-129							
CON-38410	S5 - K - Place HMA Wearing Course Pavement	5	25-Aug-28	31-Aug-28	30	-136							
CON-39040	S5 - K - Install Rdwy Signage, Striping & Misc Finishes	20	28-Nov-28	05-Jan-29	23	-142							
Const | St 5 | Cen Access | Seg K | At Grade Sta 54+55 to Sta 56+16		45	13-Jun-28	15-Aug-28	80	-131							
CON-37890	S5 - K 54+55 to 56+16 - Remove Pavements & Hardscapes	4	13-Jun-28	18-Jun-28	80	-179							
CON-37900	S5 - K 54+55 to 56+16 - Perform Roadway Excavation	4	19-Jun-28	22-Jun-28	80	-179							
CON-37910	S5 - K 54+55 to 56+16 - Install Storm Drainage & Appurtenances	20	23-Jun-28	21-Jul-28	80	-179							
CON-37930	S5 - K 54+55 to 56+16 - Place Flatwork & Curb & Gutter	4	24-Jul-28	27-Jul-28	90	-149							
CON-37940	S5 - K 54+55 to 56+16 - Prep Subgrade & Place Agg Base	8	28-Jul-28	04-Aug-28	92	-143							
CON-37950	S5 - K 54+55 to 56+16 - Place HMA Base Course Pavement	1	07-Aug-28	07-Aug-28	92	-143							
CON-49861	S5 - K 54+55 to 56+16 - Place Traffic Barrier	6	08-Aug-28	15-Aug-28	92								
Const | St 5 | Cen Access | Seg K | Bridge Sta 56+16 to Sta 59+61		213	24-Jan-28	23-Nov-28	23	-79							
Const | St 5 | Cen Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | Fndtns & Sub		58	24-Jan-28	13-Apr-28	158	-71							
Const | St 5 | Cen Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | F & S | Abut K2-A1		2			79								
CON-32530	S5 - K2-F1 - K2-A1 - Prep Work Pad For CIDH	1	24-Jan-28	24-Jan-28	32	-72							
CON-32550	S5 - K2-F1 - K2-A1 - Install CIDH Shaft(s)	7	02-Feb-28	10-Feb-28	26	-78							
CON-32630	S5 - K2-F1 - K2-A1 - Excavate Footing	4	11-Feb-28	16-Feb-28	26	-78							
CON-32640	S5 - K2-F1 - K2-A1 - Cure CIDH	7	11-Feb-28	17-Feb-28	46	-126							
CON-32700	S5 - K2-F1 - K2-A1 - Prep CIDH For Footing Construction	3	17-Feb-28	22-Feb-28	26	-78							
CON-32770	S5 - K2-F1 - K2-A1 - Form Footing/Dowel Template	3	23-Feb-28	25-Feb-28	26	-78							
CON-32870	S5 - K2-F1 - K2-A1 - Place Rebar	3	28-Feb-28	01-Mar-28	26	-78							
CON-33000	S5 - K2-F1 - K2-A1 - Place Footing Concrete	1	02-Mar-28	02-Mar-28	26	-78							
CON-33020	S5 - K2-F1 - K2-A1 - Cure Footing Concrete	7	03-Mar-28	08-Mar-28	46	-127							
CON-33050	S5 - K2-F1 - K2-A1 - Strip Footing Forms/Dowel Template	1	03-Mar-28	03-Mar-28	26	-78							
CON-33100	S5 - K2-F1 - K2-A1 - Blast/Prep For Stems & Wings	1	06-Mar-28	06-Mar-28	26	-78							
CON-33160	S5 - K2-F1 - K2-A1 - Form 1S Stems/Wings/Backwall	3	07-Mar-28	08-Mar-28	26	-78							
CON-33230	S5 - K2-F1 - K2-A1 - Place Stem & Wing Rebar	3	10-Mar-28	14-Mar-28	26	-78							
CON-33360	S5 - K2-F1 - K2-A1 - Form 2S Stems & Wings	2	15-Mar-28	16-Mar-28	26	-78							
CON-33420	S5 - K2-F1 - K2-A1 - Place Stem & Wing Concrete	1	17-Mar-28	17-Mar-28	26	-78							
CON-33480	S5 - K2-F1 - K2-A1 - Cure Stem & Wing Concrete	7	18-Mar-28	24-Mar-28	36	-128							

Date Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
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Actual Work

Remaining Work
Critical Remaining Work
Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
37 of 128

SKANSKA FLATIRON

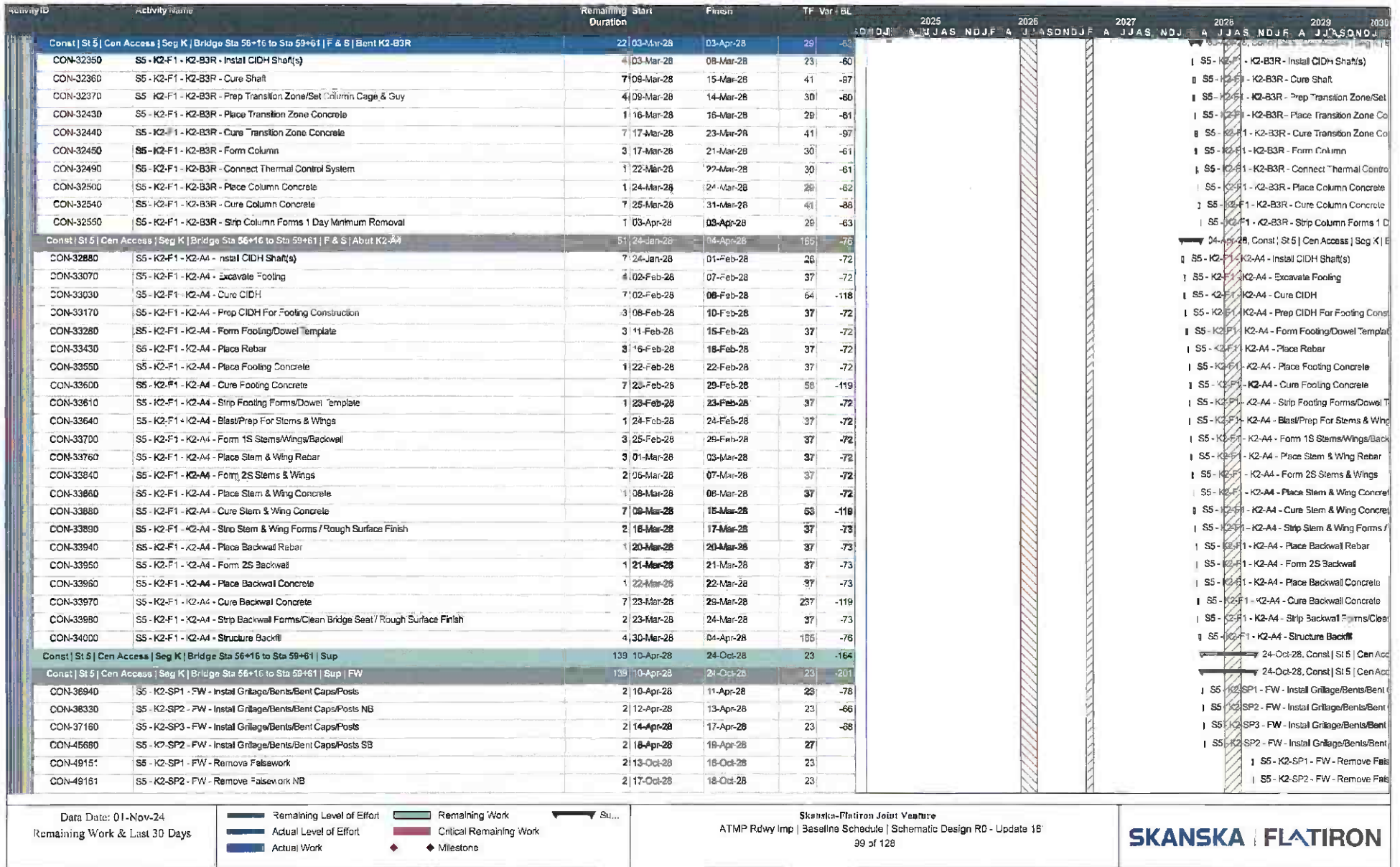
Activity ID	Activity Name	Remaining Duration	Start	Finish	TF (var - RL)	2025 2026 2027 2028 2029 2030											
						2025	2026	2027	2028	2029	2030	2025	2026	2027	2028	2029	2030
CON-33470	S5 - K2-F1 - K2-A1 - Strip Stem & Wing Forms / Rough Surface Finish	2	27-Mar-28	28-Mar-28	26	-78											
CON-33540	S5 - K2-F1 - K2-A1 - Place Backwall Rebar	1	29-Mar-28	29-Mar-28	26	-78											
CON-33580	S5 - K2-F1 - K2-A1 - Form 2S Backwall	1	30-Mar-28	30-Mar-28	26	-78											
CON-33630	S5 - K2-F1 - K2-A1 - Place Backwall Concrete	1	31-Mar-28	31-Mar-28	26	-78											
CON-33680	S5 - K2-F1 - K2-A1 - Cure Backwall Concrete	7	01-Apr-28	07-Apr-28	207	-121											
CON-33690	S5 - K2-F1 - K2-A1 - Strip Backwall Forms/Clean Bridge Seat / Rough Surface Finish	2	03-Apr-28	04-Apr-28	26	-78											
CON-33850	S5 - K2-F1 - K2-A1 - Structure Backfill	4	10-Apr-28	13-Apr-28	144	-79											
Const | St 5 | Cen Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | F & S | Bent K2-B2																	
Const | St 5 | Cen Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | F & S | Bent K2-B2L																	
CON-33110	S5 - K2-F1 - K2-B2L - Install CIDH Shaft(s)	4	08-Mar-28	14-Mar-28	23	-100											
CON-33260	S5 - K2-F1 - K2-B2L - Cure Shaft	7	15-Mar-28	21-Mar-28	33	-159											
CON-33290	S5 - K2-F1 - K2-B2L - Prep Transition Zone/Set Column Cage & Guy	4	15-Mar-28	20-Mar-28	24	-100											
CON-33520	S5 - K2-F1 - K2-B2L - Place Transition Zone Concrete	1	22-Mar-28	22-Mar-28	23	-100											
CON-33580	S5 - K2-F1 - K2-B2L - Cure Transition Zone Concrete	7	23-Mar-28	29-Mar-28	33	-159											
CON-33570	S5 - K2-F1 - K2-B2L - Form Column	3	23-Mar-28	27-Mar-28	24	-100											
CON-33650	S5 - K2-F1 - K2-B2L - Connect Thermal Control System	1	28-Mar-28	28-Mar-28	24	-100											
CON-33770	S5 - K2-F1 - K2-B2L - Place Column Concrete	1	30-Mar-28	30-Mar-28	28	-100											
CON-33790	S5 - K2-F1 - K2-B2L - Cure Column Concrete	7	31-Mar-28	06-Apr-28	33	-157											
CON-33800	S5 - K2-F1 - K2-B2L - Strip Column Forms 1 Day Minimum Removal	1	07-Apr-28	07-Apr-28	23	-100											
Const | St 5 | Cen Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | F & S | Bent K2-B2R																	
CON-33300	S5 - K2-F1 - K2-B2R - Install CIDH Shaft(s)	4	24-Jan-28	27-Jan-28	2	-72											
CON-33480	S5 - K2-F1 - K2-B2R - Cure Shaft	7	28-Jan-28	03-Feb-28	80	-118											
CON-33490	S5 - K2-F1 - K2-B2R - Prep Transition Zone/Set Column Cage & Guy	4	28-Jan-28	02-Feb-28	56	-72											
CON-33710	S5 - K2-F1 - K2-B2R - Place Transition Zone Concrete	1	04-Feb-28	04-Feb-28	55	-72											
CON-33730	S5 - K2-F1 - K2-B2R - Cure Transition Zone Concrete	7	05-Feb-28	11-Feb-28	80	-116											
CON-33740	S5 - K2-F1 - K2-B2R - Form Column	3	07-Feb-28	09-Feb-28	56	-72											
CON-33810	S5 - K2-F1 - K2-B2R - Connect Thermal Control System	1	10-Feb-28	10-Feb-28	56	-72											
CON-33870	S5 - K2-F1 - K2-B2R - Place Column Concrete	1	14-Feb-28	14-Feb-28	55	-72											
CON-33900	S5 - K2-F1 - K2-B2R - Cure Column Concrete	7	15-Feb-28	21-Feb-28	78	-118											
CON-33910	S5 - K2-F1 - K2-B2R - Strip Column Forms 1 Day Minimum Removal	1	22-Feb-28	22-Feb-28	56	-71											
Const | St 5 | Cen Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | F & S | Bent K2-B3																	
Const | St 5 | Cen Access | Seg K | Bridge Sta 56+16 to Sta 59+61 | F & S | Bent K2-B3L																	
CON-32320	S5 - K2-F1 - K2-B3L - Install CIDH Shaft(s)	4	28-Feb-28	02-Mar-28	23	-50											
CON-32330	S5 - K2-F1 - K2-B3L - Cure Shaft	7	03-Mar-28	09-Mar-28	47	-100											
CON-32340	S5 - K2-F1 - K2-B3L - Prep Transition Zone/Set Column Cage & Guy	4	03-Mar-28	08-Mar-28	34	-50											
CON-32380	S5 - K2-F1 - K2-B3L - Place Transition Zone Concrete	1	10-Mar-28	10-Mar-28	33	-61											
CON-32400	S5 - K2-F1 - K2-B3L - Cure Transition Zone Concrete	7	11-Mar-28	17-Mar-28	47	-98											
CON-32410	S5 - K2-F1 - K2-B3L - Form Column	3	13-Mar-28	16-Mar-28	34	-61											
CON-32420	S5 - K2-F1 - K2-B3L - Connect Thermal Control System	1	16-Mar-28	16-Mar-28	34	-61											
CON-32460	S5 - K2-F1 - K2-B3L - Place Column Concrete	1	20-Mar-28	20-Mar-28	33	-62											
CON-32470	S5 - K2-F1 - K2-B3L - Cure Column Concrete	7	21-Mar-28	27-Mar-28	45	-97											
CON-32480	S5 - K2-F1 - K2-B3L - Strip Column Forms 1 Day Minimum Removal	1	28-Mar-28	28-Mar-28	33	-64											

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
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 Milestone

Skanska-Flatiron Joint Venture
 ATPM Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
 98 of 128

SKANSKA | FLATIRON



Activity ID	Activity Name	Remaining	Start	Finish	TF	Var	BS	2025	2026	2027	2028	2029	2030
		Duration						MON TUE WED THU FRI SAT SUN	MON TUE WED THU FRI SAT SUN	MON TUE WED THU FRI SAT SUN	MON TUE WED THU FRI SAT SUN	MON TUE WED THU FRI SAT SUN	MON TUE WED THU FRI SAT SUN
CON-35560	S5 - Br K2 - Install Joint Assembly - Abut K-A4	5	16-Nov-28	22-Nov-28	23	-300							
Const | St 5 | Cen Access | Seg K | Retained Fill Sta 59+61 to Sta 61+06		88	27-Mar-28	28-Jul-28	99	-84							
Const | St 5 | Cen Access | Seg K | Ret Fill Sta 59+61 to Sta 61+06 | Wall K-4		50	27-Mar-28	05-Jun-28	75	-82							
Const | St 5 | Cen Access | Seg K | Ret Fill Sta 59+61 to Sta 61+06 | Wall K-4 | CIDH						-69							
CON-35730	S5 - Wall K-4 - Prep Work Pad for CIDH / Remove Ex Pymnts	2	27-Mar-28	28-Mar-28	74	-74							
CON-35740	S5 - Wall K-4 - Install CIDH Shafts	9	28-Mar-28	10-Apr-28	74	-89							
CON-35750	S5 - Wall K-4 - Final Cure CIDH Shafts	7	11-Apr-28	17-Apr-28	106	-98							
Const | St 5 | Cen Access | Seg K | Ret Fill Sta 59+61 to Sta 61+06 | Wall K-4 | Section 1		21	18-Apr-28	16-May-28	70	-77							
CON-35780	S5 - Wall K-4 - Excavate/Sandblast/Fine Grd for Footing Section 1	7	18-Apr-28	26-Apr-28	74	-75							
CON-35780	S5 - Wall K-4 - FRP Footing Section 1	2	27-Apr-28	28-Apr-28	78	-74							
CON-35800	S5 - Wall K-4 - FRP Panels Section 1	6	05-May-28	12-May-28	74	-78							
CON-35820	S5 - Wall K-4 - Cure Section 1	1	13-May-28	13-May-28	115	-109							
CON-35840	S5 - Wall K-4 - Strip Panels Section 1	2	15-May-28	16-May-28	79	-77							
Const | St 5 | Cen Access | Seg K | Ret Fill Sta 59+61 to Sta 61+06 | Wall K-4 | Section 2		19	27-Apr-28	26-May-28	74	-89							
CON-35770	S5 - Wall K-4 - Over Excavate for Footing Section 2	2	27-Apr-28	28-Apr-28	74	-76							
CON-49541	S5 - Wall K-4 - Place Soil Correction for Footing Section 2	3	01-May-28	03-May-28	74								
CON-49551	S5 - Wall K-4 - Excavate Keyway/Fine Grd for Footing Section 2	1	04-May-28	04-May-28	74								
CON-35790	S5 - Wall K-4 - FRP Footing Section 2	4	05-May-28	10-May-28	76	-79							
CON-35810	S5 - Wall K-4 - FRP Panels Section 2	4	15-May-28	18-May-28	74	-79							
CON-35830	S5 - Wall K-4 - Cure Section 2	1	19-May-28	19-May-28	109	-112							
CON-35850	S5 - Wall K-4 - Strip Panels Section 2	2	22-May-28	23-May-28	74	-79							
Const | St 5 | Cen Access | Seg K | Ret Fill Sta 59+61 to Sta 61+06 | Wall K-4 | Finish		6	21-May-28	06-Jun-28	75	-82							
CON-49561	S5 - Wall K-4 - Final Water Cure Panels	6	24-May-28	29-May-28	107								
CON-36400	S5 - Wall K-4 - Surface Finish Front Face / Install Arch Finishes	5	30-May-28	05-Jun-28	75	-82							
Const | St 5 | Cen Access | Seg K | Ret Fill Sta 59+61 to Sta 61+06 | Rdwy Section		35	06-Jun-28										
CON-36510	S5 - K 59+61 to 61+06 - Install Retaining Barrier	4	06-Jun-28	09-Jun-28	75	-88							
CON-36500	S5 - K 59+61 to 61+06 - Place, Contour & Grade Wall BF & Ramp Embankment	13	12-Jun-28	26-Jun-28	75	-86							
CON-36520	S5 - K 59+61 to 61+06 - Grade for Curb & Gutter	3	29-Jun-28	03-Jul-28	99	-75							
CON-37060	S5 - K 59+61 to 61+06 - Install Curb & Gutter	4	05-Jul-28	10-Jul-28	99	-89							
CON-37070	S5 - K 59+61 to 61+06 - Install Street Lighting Conduit & Foundations	4	11-Jul-28	14-Jul-28	99	-119							
CON-36560	S5 - K 59+61 to 61+06 - Fine Grade Subgrade	3	17-Jul-28	19-Jul-28	99	-84							
CON-36540	S5 - K 59+61 to 61+06 - Place & Fine Grade Agg Base	3	20-Jul-28	24-Jul-28	99	-81							
CON-36550	S5 - K 59+61 to 61+06 - Place HMA Base Course Pavement	1	25-Jul-28	25-Jul-28	99	-81							
CON-36530	S5 - K 59+61 to 61+06 - FRP Traffic Barrier	3	26-Jul-28	28-Jul-28	99	-88							
Const | St 5 | Cen Access | Seg K | At Grade Sta 61+06 to Sta 65+48		63	12-Jun-28	08-Sep-28									
CON-37970	S5 - K 61+06 to 65+48 - Remove Pavements & Hardscapes	4	12-Jun-28	16-Jun-28	75	-86							
CON-37980	S5 - K 61+06 to 65+48 - Perform Roadway Excavation	4	16-Jun-28	21-Jun-28	75	-86							
CON-37990	S5 - K 61+06 to 65+48 - Install Storm Drainage & Appurtenances	20	22-Jun-28	20-Jul-28	75	-86							
CON-38000	S5 - K 61+06 to 65+48 - Grade for Curb & Gutter	5	21-Jul-28	01-Aug-28	75	-86							
CON-38010	S5 - K 61+06 to 65+48 - Place Curb & Gutter	8	02-Aug-28	11-Aug-28	75	-86							
CON-49871	S5 - K 61+06 to 65+48 - Install Street Lighting Conduit & Foundations	4	14-Aug-28	17-Aug-28	75								
CON-38020	S5 - K 61+06 to 65+48 - Prep Subgrade & Place Agg Base	14	18-Aug-28	07-Sep-28	75	-80							

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

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 Actual Level of Effort
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 Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
101 of 128

SKANSKA | FLATIRON

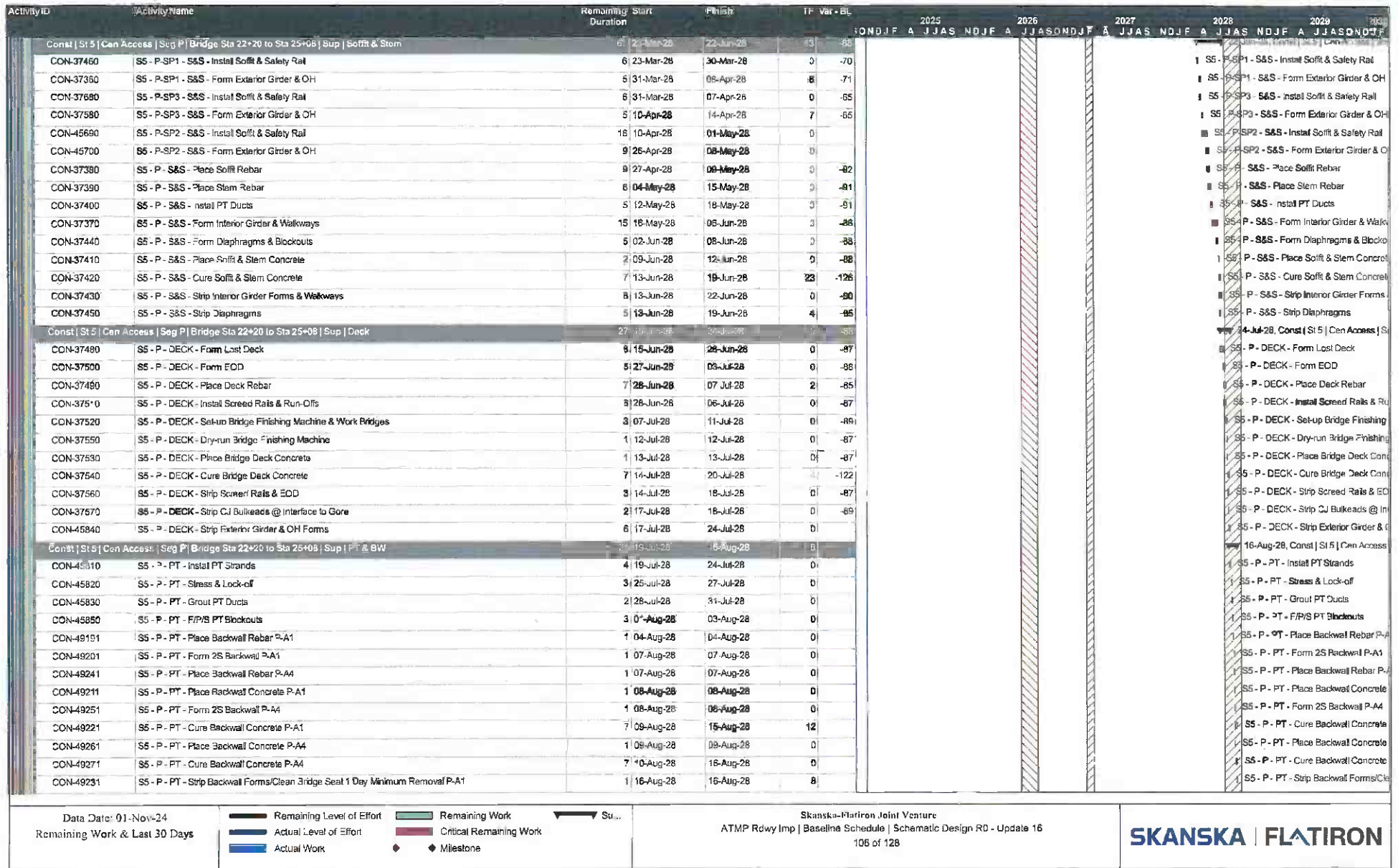
Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	2025 2026 2027 2028 2029 2030											
							J	F	M	A	M	J	J	A	S	O	N	D
CON-33720	S5 - P-F1 - P-A1 - Place Backwall Rebar	1	14-Mar-28	14-Mar-28	0	-73												
CON-33750	S5 - P-F1 - P-A1 - Form 2S Backwall	1	15-Mar-28	15-Mar-28	0	-73												
CON-33780	S5 - P-F1 - P-A1 - Place Backwall Concrete	1	16-Mar-28	16-Mar-28	0	-73												
CON-33820	S5 - P-F1 - P-A1 - Cure Backwall Concrete	7	17-Mar-28	23-Mar-28	152	-119												
CON-33830	S5 - P-F1 - P-A1 - Strip Backwall Forms/Clean Bridge Seat/ Rough Surface Finish	2	17-Mar-28	20-Mar-28	0	-73												
CON-33930	S5 - P-F1 - P-A1 - Structure Backfill	4	24-Mar-28	29-Mar-28	106	-74												
Const | St 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | F & S | Bent P-B2																		
Const | St 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | F & S | Bent P-B2L																		
CON-34550	S5 - P-F1 - P-B2L - Install CIDH Shaft(s)	4	15-Feb-28	18-Feb-28	2	-80												
CON-34560	S5 - P-F1 - P-B2L - Cure Shaft	7	19-Feb-28	25-Feb-28	3	-128												
CON-34570	S5 - P-F1 - P-B2L - Prep Transition Zone/Set Column Cage & Guy	4	22-Feb-28	25-Feb-28	3	-80												
CON-34580	S5 - P-F1 - P-B2L - Place Transition Zone Concrete	1	26-Feb-28	28-Feb-28	3	-79												
CON-34590	S5 - P-F1 - P-B2L - Cure Transition Zone Concrete	7	28-Feb-28	06-Mar-28	3	-130												
CON-34600	S5 - P-F1 - P-B2L - Form Column	3	29-Feb-28	02-Mar-28	4	-79												
CON-34640	S5 - P-F1 - P-B2L - Connect Thermal Control System	1	03-Mar-28	03-Mar-28	4	-79												
CON-34610	S5 - P-F1 - P-B2L - Place Column Concrete	1	07-Mar-28	07-Mar-28	3	-79												
CON-34620	S5 - P-F1 - P-B2L - Cure Column Concrete	7	08-Mar-28	14-Mar-28	5	-130												
CON-34630	S5 - P-F1 - P-B2L - Strip Column Forms 1 Day Minimum Removal	1	15-Mar-28	15-Mar-28	3	-79												
Const | St 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | F & S | Bent P-B2M1																		
CON-34650	S5 - P-F1 - P-B2M1 - Install CIDH Shaft(s)	4	09-Feb-28	14-Feb-28	2	-72												
CON-34680	S5 - P-F1 - P-B2M1 - Cure Shaft	7	15-Feb-28	21-Feb-28	9	-118												
CON-34670	S5 - P-F1 - P-B2M1 - Prep Transition Zone/Set Column Cage & Guy	4	15-Feb-28	18-Feb-28	7	-72												
CON-34690	S5 - P-F1 - P-B2M1 - Place Transition Zone Concrete	1	22-Feb-28	22-Feb-28	7	-71												
CON-34690	S5 - P-F1 - P-B2M1 - Cure Transition Zone Concrete	7	23-Feb-28	29-Feb-28	9	-116												
CON-34700	S5 - P-F1 - P-B2M1 - Form Column	3	23-Feb-28	25-Feb-28	8	-71												
CON-34740	S5 - P-F1 - P-B2M1 - Connect Thermal Control System	1	28-Feb-28	28-Feb-28	8	-71												
CON-34710	S5 - P-F1 - P-B2M1 - Place Column Concrete	1	01-Mar-28	01-Mar-28	7	-71												
CON-34720	S5 - P-F1 - P-B2M1 - Cure Column Concrete	7	02-Mar-28	09-Mar-28	11	-118												
CON-34730	S5 - P-F1 - P-B2M1 - Strip Column Forms 1 Day Minimum Removal	1	09-Mar-28	09-Mar-28	7	-72												
Const | St 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | F & S | Bent P-B2M2																		
CON-34750	S5 - P-F1 - P-B2M2 - Install CIDH Shaft(s)	4	03-Feb-28	08-Feb-28	2	-64												
CON-34760	S5 - P-F1 - P-B2M2 - Cure Shaft	7	09-Feb-28	15-Feb-28	15	-106												
CON-34770	S5 - P-F1 - P-B2M2 - Prep Transition Zone/Set Column Cage & Guy	4	09-Feb-28	14-Feb-28	11	-64												
CON-34780	S5 - P-F1 - P-B2M2 - Place Transition Zone Concrete	1	16-Feb-28	16-Feb-28	10	-64												
CON-34790	S5 - P-F1 - P-B2M2 - Cure Transition Zone Concrete	7	17-Feb-28	23-Feb-28	15	-106												
CON-34800	S5 - P-F1 - P-B2M2 - Form Column	3	17-Feb-28	22-Feb-28	11	-64												
CON-34840	S5 - P-F1 - P-B2M2 - Connect Thermal Control System	1	23-Feb-28	23-Feb-28	11	-64												
CON-34810	S5 - P-F1 - P-B2M2 - Place Column Concrete	1	24-Feb-28	24-Feb-28	11	-63												
CON-34820	S5 - P-F1 - P-B2M2 - Cure Column Concrete	7	25-Feb-28	02-Mar-28	17	-106												
CON-34830	S5 - P-F1 - P-B2M2 - Strip Column Forms 1 Day Minimum Removal	1	03-Mar-28	03-Mar-28	11	-64												
Const St 5 Cen Access Seg P Bridge Sta 22+20 to Sta 25+08 F & S Bent P-B2R																		
CON-34850	S5 - P-F1 - P-B2R - Install CIDH Shaft(s)	4	28-Jan-28	02-Feb-28	2	-58												

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Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
103 of 128

SKANSKA | FLATIRON



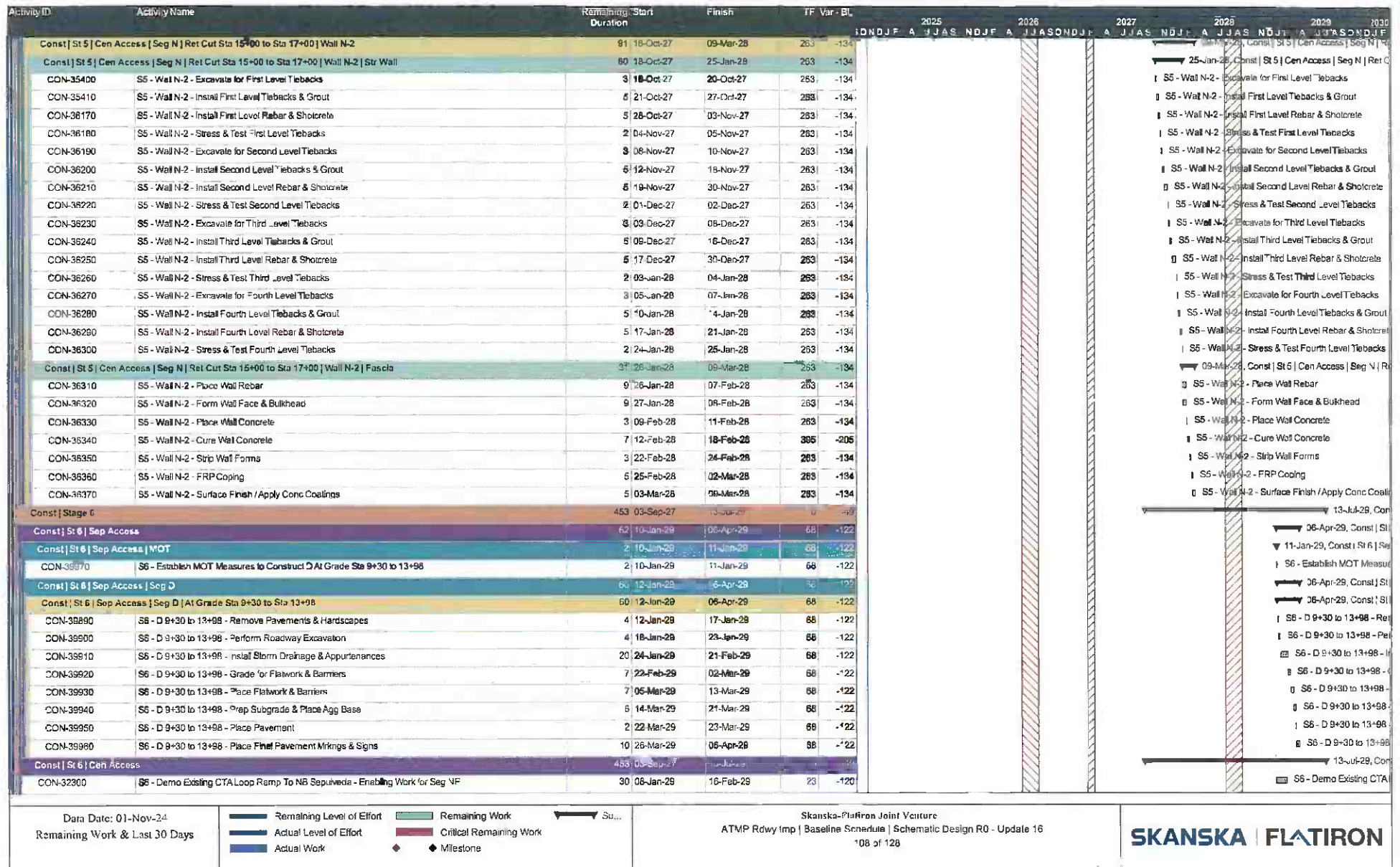
Activity ID	Activity Name	Remaining	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2030
		Duration						IONDJF A JJAS NDJF A	JJASONDJF A	JJAS NDJF A	JJAS NDJF A	JJASONDJF A
CON-49281	S5 - P - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal P-A4	1	16-Aug-28	16-Aug-28	0							
Const | St 5 | Cen Access | Seg P | Bridge Sta 22+20 to Sta 25+08 | Finishes		109	04-Apr-28	06-Sep-28	2	-105						06-Sep-28, Const | St 5 | Cen Access
CON-36810	S5 - Br P - FRP Approach Slab P-A1 - Phase 1	5	04-Apr-28	10-Apr-28	103	-27						S5 - Br P - FRP Approach Slab P-A1 - Phase 1
CON-36820	S5 - Br P - FRP Approach Slab P-A4 - Phase 1	5	13-Apr-28	19-Apr-28	83	-33						S5 - Br P - FRP Approach Slab P-A4 - Phase 1
CON-35390	S5 - Br P - FRP Bridge Rd North Side	4	16-Aug-28	21-Aug-28	2	-84						S5 - Br P - FRP Bridge Rd North Side
CON-35860	S5 - Br P - Prep Deck & Profilegraph	5	22-Aug-28	28-Aug-28	2	-82						S5 - Br P - Prep Deck & Profilegraph
CON-35870	S5 - Br P - Perform Profile Grinding	3	28-Aug-28	31-Aug-28	2	-65						S5 - Br P - Perform Profile Grinding
CON-35880	S5 - Br P - Install Joint Assembly Abut P-A1 - Phase 1	3	01-Sep-28	06-Sep-28	2	-163						S5 - Br P - Install Joint Assembly Abut
CON-35890	S5 - Br P - Install Joint Assembly Abut P-A4 - Phase 1	3	01-Sep-28	06-Sep-28	2	-162						S5 - Br P - Install Joint Assembly Abut
Const | St 5 | Cen Access | Seg P | Retained Fill Sta 25+08 to Sta 27+03 - Phase 1		236	08-Sep-27	23-Aug-28	0	-102						23-Aug-28, Const | St 5 | Cen Access
Const | St 5 | Cen Access | Seg P | Ret Fill Sta 25+08 to Sta 27+03 | Wall P-3 - Phase 1		17	08-Sep-27	30-Sep-27	68	71						30-Sep-27, Const | St 5 | Cen Access | Seg P | Ret Fill Sta 25
Const | St 5 | Cen Access | Seg P | Ret Fill Sta 25+08 to Sta 27+03 | Wall P-3 | CIDH - Phase 1		1										30-Sep-27, Const | St 5 | Cen Access | Seg P | Ret Fill Sta 25
CON-36040	S5 - Wall P-3 - Prep Work Pad for CIDH / Remove Ex Pmnts	3	08-Sep-27	10-Sep-27	89	60						S5 - Wall P-3 - Prep Work Pad for CIDH / Remove Ex Pmnts
CON-49571	S5 - Wall P-3 - Install Secant Pile	2	13-Sep-27	14-Sep-27	89							S5 - Wall P-3 - Install Secant Pile
CON-49581	S5 - Wall P-3 - Cure Secant Pile Shafts	4	15-Sep-27	18-Sep-27	113							S5 - Wall P-3 - Cure Secant Pile Shafts
CON-36050	S5 - Wall P-3 - Install CIDH Shafts	4	20-Sep-27	23-Sep-27	66	71						S5 - Wall P-3 - Install CIDH Shafts
CON-36060	S5 - Wall P-3 - Final Cure CIDH Shafts	7	24-Sep-27	30-Sep-27	112	117						S5 - Wall P-3 - Final Cure CIDH Shafts
Const | St 5 | Cen Access | Seg P | Ret Fill Sta 25+08 to Sta 27+03 | Rdwy Section - Phase 1												23-Aug-28, Const | St 5 | Cen Access
CON-36651	S5 - P 25+08 to 27+03 - P1 - Install Retaining Barrier	5	04-Apr-28	10-Apr-28	59	-26						S5 - P 25+08 to 27+03 - P1 - Install Retaining B
CON-36640	S5 - P 25+08 to 27+03 - P1 - Place, Contour & Grade Wall BF & Rmpo Embankment	2	11-Apr-28	12-Apr-28	59	-33						S5 - P 25+08 to 27+03 - P1 - Place, Contour &
CON-36660	S5 - P 25+08 to 27+03 - P1 - Install Storm Drainage & Appurtenances	10	13-Apr-28	26-Apr-28	75	-30						S5 - P 25+08 to 27+03 - P1 - Install Storm Dra
CON-36701	S5 - P 25+08 to 27+03 - P1 - Install Street Light Conduit & Fndtns	3	27-Apr-28	01-May-28	75	-30						S5 - P 25+08 to 27+03 - P1 - Install Street Lig
CON-36680	S5 - P 25+08 to 27+03 - P1 - Prep Subgrade & Place Agg Base	4	17-Aug-28	22-Aug-28	0	-102						S5 - P 25+08 to 27+03 - P1 - Prep Su
CON-36690	S5 - P 25+08 to 27+03 - P1 - Place HMA Base Course Pavement	1	23-Aug-28	23-Aug-28	0	-102						S5 - P 25+08 to 27+03 - P1 - Place H
Const | St 5 | Cen Access | Seg P | At Grade Sta 27+03 to Sta 30+32 - Phase 1		47	11-Apr-28	15-Jun-28	59	-33						15-Jun-28, Const | St 5 | Cen Access | Seg
CON-38120	S5 - P 27+03 to 30+32 - P1 - Remove Pavements & Hardscapes	4	11-Apr-28	14-Apr-28	59	-33						S5 - P 27+03 to 30+32 - P1 - Remove Pavem
CON-38130	S5 - P 27+03 to 30+32 - P1 - Perform Roadway Excavation	4	17-Apr-28	20-Apr-28	59	-33						S5 - P 27+03 to 30+32 - P1 - Perform Roadwa
CON-38140	S5 - P 27+03 to 30+32 - P1 - Install Storm Drainage & Appurtenances	20	21-Apr-28	18-May-28	59	-33						S5 - P 27+03 to 30+32 - P1 - Install Storm D
CON-38150	S5 - P 27+03 to 30+32 - P1 - Grade for Curb & Gutter	4	19-May-28	24-May-28	59	-33						S5 - P 27+03 to 30+32 - P1 - Grade for Cur
CON-38160	S5 - P 27+03 to 30+32 - P1 - Install Curb & Gutter	4	25-May-28	31-May-28	59	-33						S5 - P 27+03 to 30+32 - P1 - Install Curb &
CON-4989	S5 - P 27+03 to 30+32 - P1 - Install Street Light Conduit & Fndtns	2	01-Jun-28	02-Jun-28	59							S5 - P 27+03 to 30+32 - P1 - Install Street L
CON-38170	S5 - P 27+03 to 30+32 - P1 - Prep Subgrade & Place Agg Base	6	05-Jun-28	12-Jun-28	59	-35						S5 - P 27+03 to 30+32 - P1 - Prep Subgra
CON-38180	S5 - P 27+03 to 30+32 - P1 - Place HMA Base Course Pavement	3	13-Jun-28	15-Jun-28	59	-35						S5 - P 27+03 to 30+32 - P1 - Place HMA B
Const | St 5 | Cen Access | Seg N		359	18-Oct-27	03-Apr-29	56	-117						03-Apr-29, Const | St
Const | St 5 | Cen Access | Seg N | At Grade Sta 10+00 to Sta 15+00		54	17-Jan-29	03-Apr-29	56	-117						03-Apr-29, Const | St
CON-38190	S5 - N 10+00 to 15+00 - Remove Pavements & Hardscapes	4	17-Jan-29	22-Jan-29	56	-117						S5 - N 10+00 to 15+00 - R
CON-38200	S5 - N 10+00 to 15+00 - Perform Roadway Excavation	4	23-Jan-29	26-Jan-29	56	-117						S5 - N 10+00 to 15+00 - P
CON-38210	S5 - N 10+00 to 15+00 - Install Storm Drainage & Appurtenances	20	29-Jan-29	26-Feb-29	56	-117						S5 - N 10+00 to 15+00 -
CON-38220	S5 - N 10+00 to 15+00 - Grade for Flatwork & Barriers	8	27-Feb-29	08-Mar-29	56	-117						S5 - N 10+00 to 15+00
CON-38230	S5 - N 10+00 to 15+00 - Place Flatwork & Barriers	8	08-Mar-29	20-Mar-29	56	-117						S5 - N 10+00 to 15+00
CON-38240	S5 - N 10+00 to 15+00 - Prep Subgrade & Place Agg Base	9	21-Mar-29	02-Apr-29	56	-117						S5 - N 10+00 to 15+00
CON-38250	S5 - N 10+00 to 15+00 - Place Pavement	1	03-Apr-29	03-Apr-29	56	-117						S5 - N 10+00 to 15+00

Date Date: 01-Nov-24
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Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
107 of 128

SKANSKA | FLATIRON



Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	var	BL	2025	2026	2027	2028	2029	2030
CON-49901	S6 - Open Seg P East of Bridge In St 6 Config	2	17-May-29	18-May-29	33								
CON-49981	S6 - Open Seg PM Gore St 6 Config	2	04-Jun-29	05-Jun-29	3								
CON-38450	S6 - Demo Existing World Way South Over Sepulveda/NB Ramp - Enabling Work Seg NE	8	06-Jun-29	15-Jun-29	3	-60							
Const | St 6 | Cen Access | Seg M					0	-65							
Const | St 6 | Cen Access | Seg M | Roadway Finishes		9	21-May-29	01-Jun-29	0	-65							
CON-39270	S6 - Br MP - Install OHS & ITS Gantry	2	21-May-29	22-May-29	0	-265							
CON-39320	S6 - Br MP - Install OH Wayfinding Signs	2	23-May-29	24-May-29	0	-204							
CON-39000	S6 - Seg M - Install Rdwy Signage, Striping & Misc Finishes	5	25-May-29	01-Jun-29	0	-85							
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30					0	-75							
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | P-F1 Gore		130	02-Oct-28	19-Apr-29	0	-150							
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | P-F1 Gore | Fndtns & Sub		21			0	-41							
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | P-F1 Gore | F & S | Bent P-B3L					0								
CON-34950	S6 - P-F1 - P-B3L - Install CIDH Shaft(s)	4	02-Oct-28	05-Oct-28	0	-41							
CON-34960	S6 - P-F1 - P-B3L - Cure Shaft	7	06-Oct-28	12-Oct-28	0	-58							
CON-34970	S6 - P-F1 - P-B3L - Prep Transition Zone/Set Column Cage & Guy	4	06-Oct-28	11-Oct-28	1	-41							
CON-34980	S6 - P-F1 - P-B3L - Place Transition Zone Concrete	1	13-Oct-28	13-Oct-28	0	-41							
CON-34990	S6 - P-F1 - P-B3L - Cure Transition Zone Concrete	7	14-Oct-28	20-Oct-28	2	-58							
CON-35000	S6 - P-F1 - P-B3L - Form Column	4	16-Oct-28	18-Oct-28	1	-41							
CON-35040	S6 - P-F1 - P-B3L - Connect Thermal Control System	1	19-Oct-28	19-Oct-28	1	-41							
CON-35010	S6 - P-F1 - P-B3L - Place Column Concrete	1	23-Oct-28	23-Oct-28	0	-41							
CON-35020	S6 - P-F1 - P-B3L - Cure Column Concrete	7	24-Oct-28	30-Oct-28	0	-60							
CON-35030	S6 - P-F1 - P-B3L - Strip Column Forms 1 Day Minimum Removal	1	25-Oct-28	25-Oct-28	0	-41							
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | P-F1 Gore | Sup					0								
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | P-F1 Gore | Sup | FW					0								
CON-45970	S6 - P-SP1 - FW - Install Grillage/Bents/Bent Caps/Posts	2	02-Oct-28	03-Oct-28	14								
CON-46110	S6 - P-SP2 - FW - Install Grillage/Bents/Bent Caps/Posts NB	2	04-Oct-28	05-Oct-28	14								
CON-46100	S6 - P-SP3 - FW - Install Grillage/Bents/Bent Caps/Posts	2	26-Oct-28	27-Oct-28	0								
CON-46120	S6 - P-SP2 - FW - Install Grillage/Bents/Bent Caps/Posts SB	2	30-Oct-28	31-Oct-28	2								
CON-46180	S6 - P-SP3 - Remove Falsework	2	12-Apr-29	13-Apr-29	0								
CON-46160	S6 - P-SP2 - Remove Falsework NB	1	15-Apr-29	16-Apr-29	0								
CON-46170	S6 - P-SP2 - Remove Falsework SB	1	17-Apr-29	17-Apr-29	0								
CON-46150	S6 - P-SP1 - Remove Falsework	2	18-Apr-29	19-Apr-29	0								
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | P-F1 Gore | Sup | Soffit & Stem					0								
CON-45980	S6 - P-SP1 - S&S - Install Soffit & Safety Rail	2	04-Oct-28	05-Oct-28	16								
CON-45880	S6 - P-SP1 - S&S - Form Exterior Girder & OH	4	06-Oct-28	11-Oct-28	19								
CON-46090	S6 - P-SP3 - S&S - Install Soffit & Safety Rail	4	30-Oct-28	02-Nov-28	0								
CON-46080	S6 - P-SP3 - S&S - Form Exterior Girder & OH	5	03-Nov-28	09-Nov-28	3								
CON-46140	S6 - P-SP2 - S&S - Install Soffit & Safety Rail	8	03-Nov-28	15-Nov-28	0								
CON-46130	S6 - P-SP2 - S&S - Form Exterior Girder & OH	9	16-Nov-28	01-Dec-28	0								
CON-45880	S6 - P-F1 - S&S - Place Soffit Rebar	5	28-Nov-28	05-Dec-28	0								
CON-45890	S6 - P-F1 - S&S - Place Stem Rebar	4	08-Dec-28	12-Dec-28	0								
CON-45900	S6 - P-F1 - S&S - Install PT Ducts	4	12-Dec-28	15-Dec-28	0								

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Skanska Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
109 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var - BL	2025	2026	2027	2028	2029	2030
CON-38500	S6 - P-F2 - P-B5 - Install CIDH Shaft(s)		4/18-Sep-28	21-Sep-28	6	-39						
CON-38520	S6 - P-F2 - P-B5 - Cure Shaft		7/22-Sep-28	28-Sep-28	20	-56						
CON-38530	S6 - P-F2 - P-B5 - Prep Transition Zone/Set Column Cage & Guy		4/22-Sep-28	27-Sep-28	15	-39						
CON-38580	S6 - P-F2 - P-B5 - Place Transition Zone Concrete		1/29-Sep-28	29-Sep-28	14	-39						
CON-38590	S6 - P-F2 - P-B5 - Cure Transition Zone Concrete		7/30-Sep-28	08-Oct-28	20	-56						
CON-38600	S6 - P-F2 - P-B5 - Form Column		3/02-Oct-28	04-Oct-28	15	-39						
CON-38640	S6 - P-F2 - P-B5 - Connect Thermal Control System		1/05-Oct-28	05-Oct-28	15	-39						
CON-38650	S6 - P-F2 - P-B5 - Place Column Concrete		1/08-Oct-28	09-Oct-28	14	-39						
CON-38660	S6 - P-F2 - P-B5 - Cure Column Concrete		7/10-Oct-28	16-Oct-28	84	-56						
CON-38670	S6 - P-F2 - P-B5 - Strip Column Forms 1 Day Minimum Removal		1/10-Oct-28	10-Oct-28	14	-39						
Const | St 6 | Con Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | P-F2 | Sup							108	31				
Const | St 6 | Con Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | P-F2 | Sup | FW												
CON-38680	S6 - P-F2 - FW - Install Grillage/Bents/Bent Caps/Posts/Stringers		3/31-Oct-28	02-Nov-28	0	-44						
CON-49341	S6 - P-F2 - FW - Remove Falsework		3/16-Apr-29	18-Apr-29	1							
Const | St 6 | Con Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | P-F2 | Sup | Soft & Stems												
CON-38690	S6 - P-F2 - S&S - Install Soffit & Sale/Rail		5/03-Nov-28	13-Nov-28	0	-44						
CON-38700	S6 - P-F2 - S&S - Form Exterior Girder & OH		8/14-Nov-28	28-Nov-28	0	-44						
CON-38710	S6 - P-F2 - S&S - Place Soffit Rebar		5/20-Nov-28	29-Nov-28	0	-44						
CON-38720	S6 - P-F2 - S&S - Place Stem Rebar		5/30-Nov-28	07-Dec-28	0	-44						
CON-38730	S6 - P-F2 - S&S - Install PT Ducts		4/07-Dec-28	13-Dec-28	0	-44						
CON-38740	S6 - P-F2 - S&S - Form Interior Girder & Walkways		9/14-Dec-28	04-Jan-29	0	-44						
CON-38750	S6 - P-F2 - S&S - Form Diaphragms & Blockouts		2/05-Jan-29	08-Jan-29	0	-44						
CON-38760	S6 - P-F2 - S&S - Place Soffit & Stem Concrete		2/09-Jan-29	10-Jan-29	0	-44						
CON-38770	S6 - P-F2 - S&S - Cure Soffit & Stem Concrete		7/11-Jan-29	17-Jan-29	21	-79						
CON-38780	S6 - P-F2 - S&S - Strip Interior Girder Forms & Walkways		4/11-Jan-29	16-Jan-29	0	-44						
CON-38790	S6 - P-F2 - S&S - Strip Diaphragms		2/17-Jan-29	18-Jan-29	0	-44						
Const | St 6 | Con Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | P-F2 | Sup | Deck							25	18				
CON-38810	S6 - P-F2 - DECK - Form Lost Deck		5/19-Jan-29	25-Jan-29	0	-44						
CON-38820	S6 - P-F2 - DECK - Form EOD		3/25-Jan-29	30-Jan-29	3	-44						
CON-38830	S6 - P-F2 - DECK - Install Screed Rails & Run-Offs		3/29-Jan-29	31-Jan-29	3	-44						
CON-38840	S6 - P-F2 - DECK - Place Deck Rebar		5/31-Jan-29	06-Feb-29	0	-44						
CON-38850	S6 - P-F2 - DECK - Set-up Bridge Finishing Machine & Work Bridges		1/01-Feb-29	01-Feb-29	3	-44						
CON-38860	S6 - P-F2 - DECK - Dry-run Bridge Finishing Machine		1/07-Feb-29	07-Feb-29	0	-44						
CON-38870	S6 - P-F2 - DECK - Place Bridge Deck Concrete		1/08-Feb-29	08-Feb-29	0	-44						
CON-38890	S6 - P-F2 - DECK - Cure Bridge Deck Concrete		7/09-Feb-29	15-Feb-29	0	-75						
CON-38900	S6 - P-F2 - DECK - Strip Screed Rails & EOD		1/16-Feb-29	16-Feb-29	0	-49						
CON-38950	S6 - P-F2 - DECK - Strip Exterior Girder & OH Forms		4/20-Feb-29	23-Feb-29	0	-40						
Const | St 6 | Con Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | P-F2 | Sup | PT												
CON-38920	S6 - P-F2 - PT - Install PT Strands		4/20-Feb-29	23-Feb-29	0	-49						
CON-38940	S6 - P-F2 - PT - Stress & Lock-off		3/26-Feb-29	28-Feb-29	0	-49						
CON-38950	S6 - P-F2 - PT - Grout PT Ducts		2/01-Mar-29	02-Mar-29	0	-49						
CON-39980	S6 - P-F2 - PT - F/P/S PT Blockouts		3/05-Mar-29	07-Mar-29	0	-45						

Date Date: 01-Nov-24
Remaining Work & Last 30 Days

■ Remaining Level of Effort
■ Actual Level of Effort
■ Actual Work
■ Remaining Work
■ Critical Remaining Work
◆ Milestone

Sum...

Skanska-Flatiron Joint Venture
ATMP Rowy Imp | Baseline Schedule | Schematic Design R0 - Update 16
111 of 128

SKANSKA | FLATIRON

Data Date: 01-Nov-24 Remaining Work & Last 30 Days	Remaining Level of Effort Actual Level of Effort Actual Work	Remaining Work Critical Remaining Work Milestone	Skanska-Flatiron Joint Venture ATP Rdwy Imp Baseline Schedule Schematic Design RD - Update 16 113 of 128	SKANSKA FLATIRON
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Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	BL	2025	2026	2027	2028	2029	2030
CON-39050	S6 - P-F2/L-F2 - FRP Hinge Lower Seat	10	08-Mar-29	21-Mar-29	2	-45							
CON-39030	S6 - P-F2/L-F2 - FRP Hinge Upper Seat	10	22-Mar-29	04-Apr-29	2	-45							
CON-39040	S6 - P-F2/L-F2 - Cure Hinges	10	05-Apr-29	14-Apr-29	2	-64							
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | Closure Pour | P Main to P Gore		20	20-Apr-29	17-May-29	3								
CON-42540	S6 - Br P - Settlement Period P Gore Structure	14	20-Apr-29	03-May-29	0								
CON-42570	S6 - Br P - Form Soffit Closure Pour NB	4	20-Apr-29	25-Apr-29	0								
CON-42680	S6 - Br P - Form Soffit Closure Pour SB	4	26-Apr-29	01-May-29	0								
CON-42690	S6 - Br P - Place Closure Pour Rebar	4	02-May-29	07-May-29	0								
CON-42700	S6 - Br P - Place Closure Pour Concrete	1	08-May-29	08-May-29	0								
CON-42710	S6 - Br P - Cure Closure Pour Concrete	7	09-May-29	16-May-29	0								
CON-42720	S6 - Br P - Strip Closure Pour	2	18-May-29	17-May-29	3								
Const | St 6 | Cen Access | Seg M | Bridge Sta 12+56 to Sta 17+30 | Finishes		29	19-Apr-29	30-May-29	0	-73							
CON-39870	S6 - Br P - FRP Bridge Rail South Side	4	19-Apr-29	24-Apr-29	15	-48							
CON-46240	S6 - Br P - FRP Bridge Rail Bridge P Median Gore	3	16-May-29	18-May-29	0								
CON-46670	S6 - Br P - Prep Deck & Profilegraph	2	21-May-29	22-May-29	0								
CON-46710	S6 - Br P - Perform Profile Grinding	2	23-May-29	24-May-29	0								
CON-46760	S6 - Br P - Install Joint Assembly - Hinge P-F1/P-F2	3	25-May-29	30-May-29	0								
CON-46760	S6 - Br P - Install Joint Assembly - Hinge P-F2/L-F2	3	25-May-29	30-May-29	0								
Const | St 6 | Cen Access | Seg N		19			13	-60							
Const | St 6 | Cen Access | Seg N | Roadway Finishes		15	05-Jun-29	25-Jun-29	13	-180							
CON-34310	S5 - Seg N - Construct Final Roadway Finishes	15	05-Jun-29	25-Jun-29	13	-180							
Const | St 6 | Cen Access | Seg N | Retained Cut Sta 15+00 to Sta 17+00		20	10-Mar-29	06-Apr-29	297	-65							
Const | St 6 | Cen Access | Seg N | Ret Cut Sta 15+00 to Sta 17+00 | Rdwy Section		20	10-Mar-29	06-Apr-29	297	-65							
CON-36720	S5 - N 15+00 to 17+00 - Install Drainage Pipe & Appurtenances	5	10-Mar-29	18-Mar-29	297	-65							
CON-36730	S5 - N 15+00 to 17+00 - Install Drainage Boxes & Appurtenances	10	15-Mar-29	28-Mar-29	297	-65							
CON-36770	S5 - N 15+00 to 17+00 - Fine Grade Subgrade	2	29-Mar-29	30-Mar-29	297	-65							
CON-36740	S5 - N 15+00 to 17+00 - FRP Traffic Barrier	2	31-Mar-29	03-Apr-29	297	-65							
CON-36750	S5 - N 15+00 to 17+00 - Place & Fine Grade Agg Base	2	04-Apr-29	06-Apr-29	297	-65							
CON-36760	S5 - N 15+00 to 17+00 - Place HMA Pavement	1	06-Apr-29	06-Apr-29	297	-65							
Const | St 6 | Cen Access | Seg N | At Grade Sta 17+00 to Sta 23+90		35	10-Apr-29	04-Jun-29	13	-311							
CON-38270	S5 - N 17+00 to 23+90 - Perform Roadway Excavation	4	16-Apr-29	18-Apr-29	13	-330							
CON-38280	S5 - N 17+00 to 23+90 - Install Storm Drainage & Appurtenances	10	20-Apr-29	03-May-29	13	-320							
CON-38290	S5 - N 17+00 to 23+90 - Grade for Flatwork & Barriers	9	04-May-29	18-May-29	13	-320							
CON-38300	S5 - N 17+00 to 23+90 - Place Flatwork & Barriers	9	04-May-29	18-May-29	13	-311							
CON-38310	S5 - N 17+00 to 23+90 - Prep Subgrade & Place Agg Base	11	17-May-29	01-Jun-29	13	-311							
CON-38320	S5 - N 17+00 to 23+90 - Place Pavement	1	04-Jun-29	04-Jun-29	13	-311							
Const | St 6 | Cen Access | Seg NE		1											
CON-39880	S6 - NE - Construct Final Roadway Finishes	5	09-Jul-29	13-Jul-29	0	-49							
Const | St 6 | Cen Access | Seg NE | At Grade Sta 10+00 to Sta 18+00		38	11-Apr-29	04-Jun-29	23	-156							
CON-38800	S6 - NE Sta 10+00 to Sta 18+00 - Perform Rdwy Excavation	10	11-Apr-29	24-Apr-29	23	-156							
CON-38880	S6 - NE Sta 10+00 to Sta 18+00 - Install Storm Drainage & Appurtenances	13	25-Apr-29	11-May-29	23	-156							
CON-38990	S6 - NE Sta 10+00 to Sta 18+00 - Prep Subgrade & Place Agg Base	8	11-May-29	23-May-29	23	-156							

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Critical Remaining Work
 Milestone

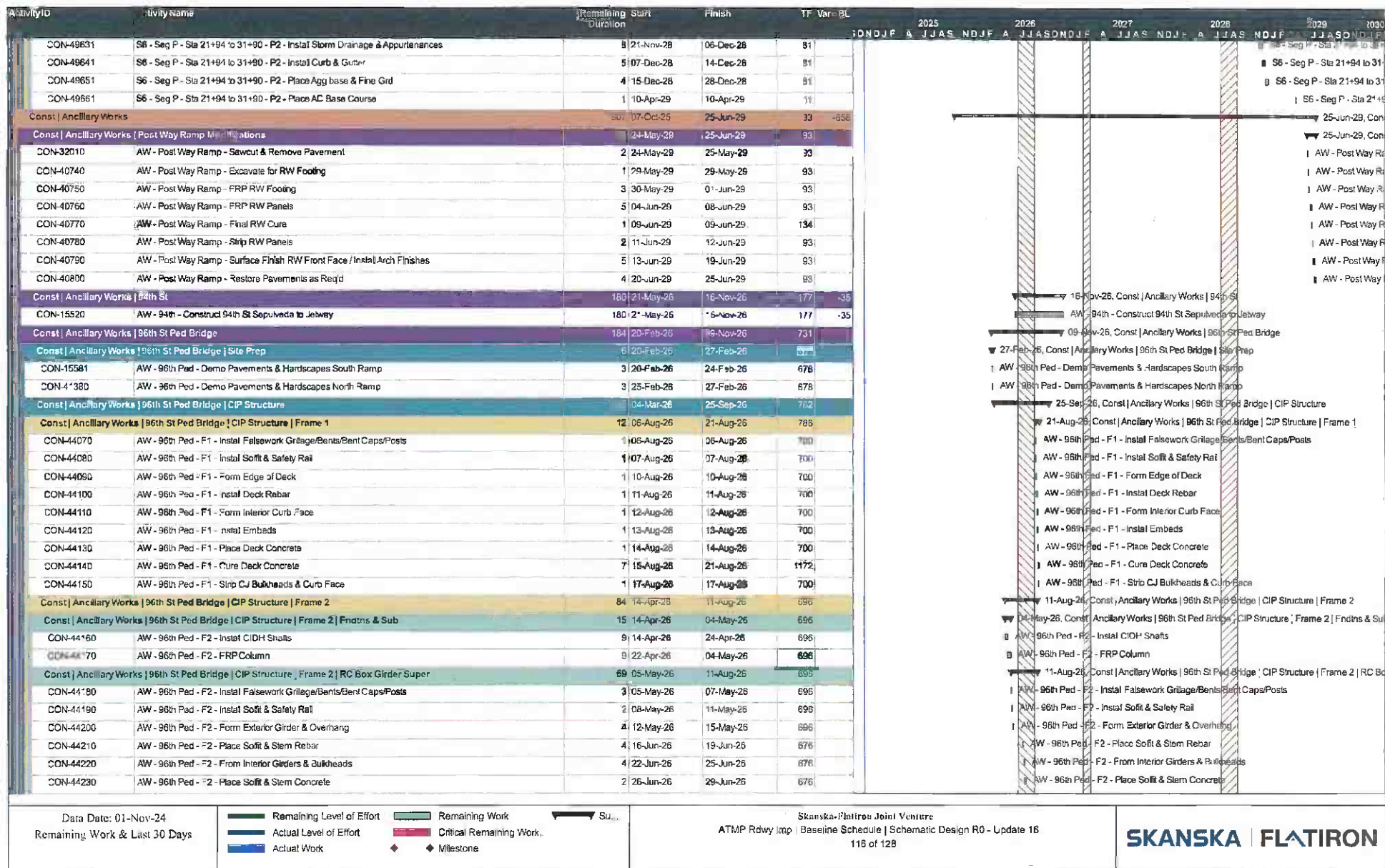
Skanska Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
114 of 128

SKANSKA | FLATIRON

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Legend:

- Remaining Level of Effort
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone



Activity ID	Activity Name	Remaining Duration	Start	Finish	TF Var - BL	2025	2026	2027	2028	2029	2030
CON-44240	AW - 96th Ped - F2 - Cure Soffit & Stem Concrete	7	30-Jun-26	05-Jul-26	1038						
CON-44250	AW - 96th Ped - F2 - Strip Interior Girders	1	30-Jun-26	30-Jun-26	678						
CON-44260	AW - 96th Ped - F2 - Form Edge of Deck	4	01-Jul-26	07-Jul-26	679						
CON-44270	AW - 96th Ped - F2 - Form Lost Deck	3	08-Jul-26	10-Jul-26	678						
CON-44280	AW - 96th Ped - F2 - Install Deck Rebar	5	13-Jul-26	17-Jul-26	678						
CON-44290	AW - 96th Ped - F2 - Form Interior Form Face	5	20-Jul-26	24-Jul-26	676						
CON-44310	AW - 96th Ped - F2 - Install Conduits & MEPs	3	20-Jul-26	22-Jul-26	683						
CON-44300	AW - 96th Ped - F2 - Install Embeds	5	27-Jul-26	31-Jul-26	676						
CON-44320	AW - 96th Ped - F2 - Place Deck Concrete	2	03-Aug-26	04-Aug-26	676						
CON-44330	AW - 96th Ped - F2 - Cure Deck Concrete	7	05-Aug-26	11-Aug-26	1013						
CON-44340	AW - 96th Ped - F2 - Strip CJ Bulkheads & Curb Face	1	05-Aug-26	05-Aug-26	700						
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 3		96	01-Apr-26	14-Aug-26	676						
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 3 | Fndtns & Sub		15	01-Apr-26	21-Apr-26	676						
CON-44350	AW - 96th Ped - F3 - Install CIDH Shafts	9	01-Apr-26	13-Apr-26	676						
CON-44360	AW - 96th Ped - F3 - FRP Column	9	09-Apr-26	21-Apr-26	676						
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 3 | RC Box Girder Super		51	22-Apr-26	14-Aug-26	676						
CON-44370	AW - 96th Ped - F3 - Install Falsework Grillage/Bents/Bent Caps/Posts	3	22-Apr-26	24-Apr-26	676						
CON-44380	AW - 96th Ped - F3 - Install Soffit & Safety Rail	2	27-Apr-26	28-Apr-26	676						
CON-44390	AW - 96th Ped - F3 - Form Exterior Girder & Overhang	3	29-Apr-26	31-May-26	676						
CON-44400	AW - 96th Ped - F3 - Place Soffit & Stem Rebar	3	04-May-26	06-May-26	676						
CON-44410	AW - 96th Ped - F3 - Form Interior Girders & Bulkheads	3	07-May-26	11-May-26	678						
CON-44420	AW - 96th Ped - F3 - Place Soffit & Stem Concrete	2	12-May-26	13-May-26	679						
CON-44430	AW - 96th Ped - F3 - Cure Soffit & Stem Concrete	7	14-May-26	20-May-26	1036						
CON-44440	AW - 96th Ped - F3 - Strip Interior Girders	1	14-May-26	14-May-26	678						
CON-44450	AW - 96th Ped - F3 - Form Edge of Deck	3	15-May-26	19-May-26	676						
CON-44460	AW - 96th Ped - F3 - Form Lost Deck	2	20-May-26	21-May-26	676						
CON-44470	AW - 96th Ped - F3 - Install Deck Rebar	3	22-May-26	27-May-26	679						
CON-44480	AW - 96th Ped - F3 - Form Interior Curb Face	5	28-May-26	03-Jun-26	676						
CON-44500	AW - 96th Ped - F3 - Install Conduits & MEPs	3	28-May-26	01-Jun-26	683						
CON-44490	AW - 96th Ped - F3 - Install Embeds	5	04-Jun-26	10-Jun-26	678						
CON-44510	AW - 96th Ped - F3 - Place Deck Concrete	2	11-Jun-26	12-Jun-26	676						
CON-44520	AW - 96th Ped - F3 - Cure Deck Concrete	7	13-Jun-26	19-Jun-26	1066						
CON-44530	AW - 96th Ped - F3 - Strip CJ Bulkheads & Curb Face	1	15-Jun-26	16-Jun-26	676						
CON-44540	AW - 96th Ped - F3 - Remove Falsework Over Sigs C & H	3	12-Aug-26	14-Aug-26	676						
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 4		95	24-Mar-26	11-Aug-26	704						
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 4 | Fndtns & Sub		9	24-Mar-26	03-Apr-26	713						
CON-44550	AW - 96th Ped - F4 - Install CIDH Shafts	6	24-Mar-26	31-Mar-26	676						
CON-44560	AW - 96th Ped - F4 - FRP Column	6	27-Mar-26	03-Apr-26	713						
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 4 | RC Box Girder Super		90	06-Apr-26	11-Aug-26	704						
CON-44570	AW - 96th Ped - F4 - Install Falsework Grillage/Bents/Bent Caps/Posts	3	06-Apr-26	08-Apr-26	713						
CON-44580	AW - 96th Ped - F4 - Install Soffit & Safety Rail	3	09-Apr-26	13-Apr-26	713						
CON-44590	AW - 96th Ped - F4 - Form Exterior Girder & Overhang	7	14-Apr-26	22-Apr-26	713						

Date Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
117 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF Var -BL	2025	2026	2027	2028	2029	2030
						O N D J F A J J A S N D J F A J J A S O N D J F A J J A S N D J F A J J A S N D J F A J J A S O N D J F					
Const | Ancillary Works | 96th St Ped Bridge | CIP Structure | Frame 6 | RC Slab			29 17-Aug-26	25-Sep-26	752						
CON-44970	AW - 96th Ped - F6 - Instal Falsework Grillage/Bents/Bent Caps/Posts		3 17-Aug-26	19-Aug-26	678						
CON-44980	AW - 96th Ped - F6 - Instal Soft & Safety Rail		2 20-Aug-26	21-Aug-26	678						
CON-44990	AW - 96th Ped - F6 - Form Bent Caps & Edge of Deck		3 24-Aug-26	28-Aug-26	678						
CON-45070	AW - 96th Ped - F6 - Instal Deck Rebar		4 27-Aug-26	01-Sep-26	678						
CON-45080	AW - 96th Ped - F6 - Form Interior Curb Face		5 02-Sep-26	09-Sep-26	678						
CON-45100	AW - 96th Ped - F6 - Instal Embeds		5 10-Sep-26	16-Sep-26	678						
CON-45110	AW - 96th Ped - F6 - Place Deck Concrete		2 17-Sep-26	18-Sep-26	678						
CON-45120	AW - 96th Ped - F6 - Cure Deck Concrete		7 19-Sep-26	25-Sep-26	1137						
CON-45130	AW - 96th Ped - F6 - Strip C/J Bulkheads & Curb Face		1 21-Sep-26	21-Sep-26	578						
Const | Ancillary Works | 96th St Ped Bridge | Southern Access & Seg C Ramp			17 17-Aug-26	03-Nov-26	735						
CON-45140	AW - 96th Ped - So Access/Seg C Ramp - Grade for Sidewalk		4 17-Aug-26	20-Aug-26	758						
CON-45150	AW - 96th Ped - So Access/Seg C Ramp - Place Agg Base for Sidewalk		6 21-Aug-26	28-Aug-26	758						
CON-45180	AW - 96th Ped - So Access/Seg C Ramp - FRP Conc Barrier		4 31-Aug-26	03-Sep-26	758						
CON-45170	AW - 96th Ped - So Access/Seg C Ramp - Place Sidewalk Concrete		7 06-Oct-26	14-Oct-26	735						
CON-45180	AW - 96th Ped - So Access/Seg C Ramp - Instal Fencing Along LACC Property		14 15-Oct-26	03-Nov-26	735						
Const | Ancillary Works | 96th St Ped Bridge | Northern Temp Connection to Ex Sidewalk			17 17-Aug-26	28-Sep-26							
CON-45190	AW - 96th Ped - North Temp Conn - Grade for Temp Connection		2 22-Sep-26	23-Sep-26	761						
CON-45200	AW - 96th Ped - North Temp Conn - Establish Temp Connection to Ex Sidewalk		2 24-Sep-26	25-Sep-26	761						
CON-45210	AW - 96th Ped - North Temp Conn - Instal Req'd Fencing		1 28-Sep-26	28-Sep-26	761						
Const | Ancillary Works | 96th St Ped Bridge | Bridge Finishes			17 17-Aug-26	05-Oct-26							
CON-45220	AW - 96th Ped - Bridge Finishes - Instal Fencing & Handrails		35 22-Sep-26	09-Nov-26	731						
CON-45230	AW - 96th Ped - Bridge Finishes - Instal Lighting Elements		10 22-Sep-26	05-Oct-26	758						
CON-45240	AW - 96th Ped - Bridge Finishes - Instal CCTV Cameras		10 22-Sep-26	05-Oct-26	678						
Const | Ancillary Works | 96th St Ped Path			17 17-Aug-26	14-Mar-27							
CON-32020	AW - 96th St Ped Path - Sawcut & Remove Pavement		6 27-Aug-27	02-Sep-27	329						
CON-32030	AW - 96th St Ped Path - Excavate to Subgrade		3 03-Sep-27	08-Sep-27	329						
CON-32040	AW - 96th St Ped Path - Instal Storm Drainage & Appurtenances		15 09-Sep-27	29-Sep-27	329						
CON-32100	AW - 96th St Ped Path - Instal Light Pole Foundations & Conduits		15 30-Sep-27	20-Oct-27	329						
CON-32110	AW - 96th St Ped Path - Instal Irrigation Conduits & Piping		6 21-Oct-27	31-Nov-27	329						
CON-32120	AW - 96th St Ped Path - Fine Grade Subgrade		5 02-Nov-27	08-Nov-27	329						
CON-32130	AW - 96th St Ped Path - Place & Fine Grade Agg Base		8 09-Nov-27	19-Nov-27	329						
CON-32140	AW - 96th St Ped Path - Place Curbs & Sidewalks		15 22-Nov-27	17-Dec-27	329						
CON-35710	AW - 96th St Ped Path - Instal Light Poles, Pul & Terminate Wire		5 27-Dec-27	03-Jan-28	329						
CON-35690	AW - 96th St Ped Path - Instal Landscape Elements		40 04-Jan-28	29-Feb-28	329						
CON-40000	AW - 96th St Ped Path - Site Furnishings		10 01-Mar-28	14-Mar-28	329						
Const | Ancillary Works | Sepulveda Ped Bridge		58									
CON-41010	AW - Sep Ped - Mobilize to Hyatt Parking Lot & Instal Ped Protection		3 20-Feb-26	26-Feb-26	163						
CON-41020	AW - Sep Ped - Relocate Conflicting Utilities w/in Hyatt Parking Lot		20 27-Feb-26	26-Mar-26	163						
Const | Ancillary Works | Sepulveda Ped Bridge | Main Structure		28	27-Mar-26	17-May-27	629						
Const | Ancillary Works | Sepulveda Ped Bridge | Main Structure | Fndtns & Sub		134	27-Mar-26	05-Oct-26	200						
Const Ancillary Works Sepulveda Ped Bridge Main Structure Fndtns & Sub SP8-1		34	16-Jun-26	31-Jul-26	245						

Date Date: 01-Nov-24
Remaining Work & Last 30 Days

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Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
119 of 128

SKANSKA | FLATIRON

ActivityID	Activity Name	Remaining Duration	Start	Finish	TF Var - DL	2025	2026	2027	2028	2029	2030
CON-41800	AW - Sep Ped - SPB-1 - Install CIDH Shaft(s)	3	15-Jun-26	17-Jun-26	1	CON-41800	AW - Sep Ped - SPB-1 - Install CIDH Shaft(s)				
CON-41810	AW - Sep Ped - SPB-1 - Cure Shaft	7	18-Jun-26	24-Jun-26	368	CON-41810	AW - Sep Ped - SPB-1 - Cure Shaft				
CON-41820	AW - Sep Ped - SPB-1 - Prep Transition Zone/Set Column Cage & Guy	4	18-Jun-26	23-Jun-26	247	CON-41820	AW - Sep Ped - SPB-1 - Prep Transition Zone/Set Column Cage & Guy				
CON-41830	AW - Sep Ped - SPB-1 - Place Transition Zone Concrete	1	25-Jun-26	26-Jun-26	246	CON-41830	AW - Sep Ped - SPB-1 - Place Transition Zone Concrete				
CON-41840	AW - Sep Ped - SPB-1 - Cure Transition Zone Concrete	7	26-Jun-26	02-Jul-26	358	CON-41840	AW - Sep Ped - SPB-1 - Cure Transition Zone Concrete				
CON-41850	AW - Sep Ped - SPB-1 - Form Column	3	26-Jun-26	30-Jun-26	248	CON-41850	AW - Sep Ped - SPB-1 - Form Column				
CON-41860	AW - Sep Ped - SPB-1 - Connect Thermal Control System	1	01-Jul-26	01-Jul-26	248	CON-41860	AW - Sep Ped - SPB-1 - Connect Thermal Control System				
CON-41870	AW - Sep Ped - SPB-1 - Place Column Concrete	1	08-Jul-26	08-Jul-26	245	CON-41870	AW - Sep Ped - SPB-1 - Place Column Concrete				
CON-41880	AW - Sep Ped - SPB-1 - Cure Column Concrete	7	07-Jul-26	13-Jul-26	372	CON-41880	AW - Sep Ped - SPB-1 - Cure Column Concrete				
CON-41890	AW - Sep Ped - SPB-1 - Strip Column Forms 1 Day Minimum Removal	1	07-Jul-26	07-Jul-26	245	CON-41890	AW - Sep Ped - SPB-1 - Strip Column Forms 1 Day Minimum Removal				
CON-41900	AW - Sep Ped - SPB-1 - Form Pier Cap Soffit & Back Face	3	08-Jul-26	10-Jul-26	245	CON-41900	AW - Sep Ped - SPB-1 - Form Pier Cap Soffit & Back Face				
CON-41910	AW - Sep Ped - SPB-1 - Install Pier Cap Rebar	4	13-Jul-26	18-Jul-26	245	CON-41910	AW - Sep Ped - SPB-1 - Install Pier Cap Rebar				
CON-41920	AW - Sep Ped - SPB-1 - Form Pier Cap Front Face & Bearing Pedestals	2	17-Jul-26	20-Jul-26	245	CON-41920	AW - Sep Ped - SPB-1 - Form Pier Cap Front Face & Bearing Pedestals				
CON-41930	AW - Sep Ped - SPB-1 - Place Pier Cap Concrete	1	21-Jul-26	21-Jul-26	245	CON-41930	AW - Sep Ped - SPB-1 - Place Pier Cap Concrete				
CON-41940	AW - Sep Ped - SPB-1 - Cure Pier Cap Concrete	7	22-Jul-26	28-Jul-26	365	CON-41940	AW - Sep Ped - SPB-1 - Cure Pier Cap Concrete				
CON-41950	AW - Sep Ped - SPB-1 - Strip Pier Cap	3	28-Jul-26	31-Jul-26	245	CON-41950	AW - Sep Ped - SPB-1 - Strip Pier Cap				
Const | Ancillary Works | Sepulveda Ped Bridge | Main Structure | Endfins & Sub | SPB-2		134	27-Aug-26	05-Oct-26	200						
CON-42120	AW - Sep Ped - SPB-2 - Remove Pavements & Hardscapes	3	27-Aug-26	31-Mar-26	163	CON-42120	AW - Sep Ped - SPB-2 - Remove Pavements & Hardscapes				
CON-41960	AW - Sep Ped - SPB-2 - Install CIDH Shaft(s)	3	18-Aug-26	20-Aug-26	66	CON-41960	AW - Sep Ped - SPB-2 - Install CIDH Shaft(s)				
CON-41970	AW - Sep Ped - SPB-2 - Cure Shaft	7	21-Aug-26	27-Aug-26	304	CON-41970	AW - Sep Ped - SPB-2 - Cure Shaft				
CON-41980	AW - Sep Ped - SPB-2 - Prep Transition Zone/Set Column Cage & Guy	4	21-Aug-26	26-Aug-26	202	CON-41980	AW - Sep Ped - SPB-2 - Prep Transition Zone/Set Column Cage & Guy				
CON-41990	AW - Sep Ped - SPB-2 - Place Transition Zone Concrete	1	28-Aug-26	28-Aug-26	201	CON-41990	AW - Sep Ped - SPB-2 - Place Transition Zone Concrete				
CON-42000	AW - Sep Ped - SPB-2 - Cure Transition Zone Concrete	7	29-Aug-26	04-Sep-26	304	CON-42000	AW - Sep Ped - SPB-2 - Cure Transition Zone Concrete				
CON-42010	AW - Sep Ped - SPB-2 - Form Column	3	31-Aug-26	02-Sep-26	201	CON-42010	AW - Sep Ped - SPB-2 - Form Column				
CON-42020	AW - Sep Ped - SPB-2 - Connect Thermal Control System	1	03-Sep-26	03-Sep-26	201	CON-42020	AW - Sep Ped - SPB-2 - Connect Thermal Control System				
CON-42030	AW - Sep Ped - SPB-2 - Place Column Concrete	1	08-Sep-26	08-Sep-26	200	CON-42030	AW - Sep Ped - SPB-2 - Place Column Concrete				
CON-42040	AW - Sep Ped - SPB-2 - Cure Column Concrete	7	09-Sep-26	15-Sep-26	306	CON-42040	AW - Sep Ped - SPB-2 - Cure Column Concrete				
CON-42050	AW - Sep Ped - SPB-2 - Strip Column Forms 1 Day Minimum Removal	1	09-Sep-26	09-Sep-26	200	CON-42050	AW - Sep Ped - SPB-2 - Strip Column Forms 1 Day Minimum Removal				
CON-42060	AW - Sep Ped - SPB-2 - Form Pier Cap Soffit & Back Face	3	10-Sep-26	14-Sep-26	200	CON-42060	AW - Sep Ped - SPB-2 - Form Pier Cap Soffit & Back Face				
CON-42070	AW - Sep Ped - SPB-2 - Install Pier Cap Rebar	4	15-Sep-26	18-Sep-26	200	CON-42070	AW - Sep Ped - SPB-2 - Install Pier Cap Rebar				
CON-42080	AW - Sep Ped - SPB-2 - Form Pier Cap Front Face & Bearing Pedestals	2	21-Sep-26	22-Sep-26	200	CON-42080	AW - Sep Ped - SPB-2 - Form Pier Cap Front Face & Bearing Pedestals				
CON-42090	AW - Sep Ped - SPB-2 - Place Pier Cap Concrete	1	23-Sep-26	23-Sep-26	200	CON-42090	AW - Sep Ped - SPB-2 - Place Pier Cap Concrete				
CON-42100	AW - Sep Ped - SPB-2 - Cure Pier Cap Concrete	7	24-Sep-26	30-Sep-26	301	CON-42100	AW - Sep Ped - SPB-2 - Cure Pier Cap Concrete				
CON-42110	AW - Sep Ped - SPB-2 - Strip Pier Cap	3	01-Oct-26	05-Oct-26	200	CON-42110	AW - Sep Ped - SPB-2 - Strip Pier Cap				
Const | Ancillary Works | Sepulveda Ped Bridge | Main Structure | Superstructure		48	06-Oct-26	28-Dec-26	448						
CON-41500	AW - Sep Ped - Set Bent Anchorage & Bearing Components	8	06-Oct-26	13-Oct-26	386	CON-41500	AW - Sep Ped - Set Bent Anchorage & Bearing Components				
CON-41510	AW - Sep Ped - Erect Temp Bent(s) in Sep Median	2	14-Oct-26	15-Oct-26	386	CON-41510	AW - Sep Ped - Erect Temp Bent(s) in Sep Median				
CON-41520	AW - Sep Ped - Erect Steel Truss	2	16-Oct-26	19-Oct-26	386	CON-41520	AW - Sep Ped - Erect Steel Truss				
CON-41530	AW - Sep Ped - Erect Minor Connecting & Support Steel	10	20-Oct-26	02-Nov-26	386	CON-41530	AW - Sep Ped - Erect Minor Connecting & Support Steel				
CON-41540	AW - Sep Ped - Install Metal SIP Decking	6	03-Nov-26	10-Nov-26	386	CON-41540	AW - Sep Ped - Install Metal SIP Decking				
CON-41550	AW - Sep Ped - Form Edge of Deck	4	12-Nov-26	17-Nov-26	386	CON-41550	AW - Sep Ped - Form Edge of Deck				
CON-41560	AW - Sep Ped - Install Deck Rebar	3	18-Nov-26	20-Nov-26	386	CON-41560	AW - Sep Ped - Install Deck Rebar				

Date Date: 01-Nov-24
Remaining Work & Last 30 Days

■ Remaining Level of Effort
■ Actual Level of Effort
■ Actual Work
■ Remaining Work
■ Critical Remaining Work
◆ Milestone

Sum...

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
120 of 128

SKANSKA | **FLATIRON**

ActivityID	Activity Name	Remaining Duration	Start	Finish	TF Value	2025 2026 2027 2028 2029 2030											
						JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
CON-41570	AW - Sep Ped - Install Conduit & MEPs	5	23-Dec-26	02-Dec-26	386												
CON-41580	AW - Sep Ped - Install Embeds	5	03-Dec-26	10-Dec-26	386												
CON-41590	AW - Sep Ped - Place Deck Concrete	1	11-Dec-26	11-Dec-26	386												
CON-41600	AW - Sep Ped - Cure Deck Concrete	7	12-Dec-26	18-Dec-26	687												
CON-41610	AW - Sep Ped - Remove Temp Benfts	1	28-Dec-26	28-Dec-26	440												
Const | Ancillary Works | Sepulveda Ped Bridge | Main Structure | Finishes		83	29-Dec-26	26-Apr-27	544												
CON-41630	AW - Sep Ped - Install Scaffold/Suspend Quick-Deck & Temp Railing	4	29-Dec-26	04-Jan-27	445												
CON-41640	AW - Sep Ped - Install Roof Decking	5	05-Jan-27	11-Jan-27	449												
CON-41650	AW - Sep Ped - Install Roof Insulation	4	12-Jan-27	15-Jan-27	449												
CON-41660	AW - Sep Ped - Install Roof Drains	4	18-Jan-27	21-Jan-27	449												
CON-41670	AW - Sep Ped - Install Roof Fall Restraints	3	22-Jan-27	26-Jan-27	449												
CON-41680	AW - Sep Ped - Install Roof Membrane	8	27-Jan-27	05-Feb-27	449												
CON-41690	AW - Sep Ped - Install Painting & Coatings	10	08-Feb-27	22-Feb-27	570												
CON-41700	AW - Sep Ped - Install Glazing	25	08-Feb-27	15-Mar-27	449												
CON-41710	AW - Sep Ped - Remove Scaffold/Suspend Quick-Deck & Temp Railing	4	16-Mar-27	19-Mar-27	555												
CON-41720	AW - Sep Ped - Install Drop Ceiling	20	16-Mar-27	12-Apr-27	449												
CON-41730	AW - Sep Ped - Install Handrail	15	22-Mar-27	09-Apr-27	555												
CON-41740	AW - Sep Ped - Install Wayfinding Signage	10	13-Apr-27	26-Apr-27	544												
Const | Ancillary Works | Sepulveda Ped Bridge | Main Structure | MEPs		70	06-Feb-27	17-May-27	454												
CON-41750	AW - Sep Ped - Install All MEP Overhead Rough In	25	08-Feb-27	15-Mar-27	449												
CON-41760	AW - Sep Ped - Install Lighting & Electrical Devices	25	13-Apr-27	17-May-27	449												
CON-41770	AW - Sep Ped - Install Cameras & Misc Comms Devices	25	13-Apr-27	17-May-27	454												
CON-41780	AW - Sep Ped - Install Fire Detection System	15	13-Apr-27	33-May-27	464												
CON-41790	AW - Sep Ped - Install Fire Protection System	15	13-Apr-27	33-May-27	459												
Const | Ancillary Works | Sepulveda Ped Bridge | West Access		25	13-Oct-26	20-Oct-27	380												
Const | Ancillary Works | Sepulveda Ped Bridge | West Access | Elevator Pits		48	13-Oct-26	04-Jan-27	202												
CON-41030	AW - Sep Ped - W Elev Str - Excavate & Shore Elevator Pit	5	13-Oct-26	19-Oct-26	201												
CON-41040	AW - Sep Ped - W Elev Str - Install In Ground Cylinder Casing	5	20-Oct-26	26-Oct-26	201												
CON-41050	AW - Sep Ped - W Elev Str - Install Pit Invert Rebar	3	27-Oct-26	29-Oct-26	201												
CON-41060	AW - Sep Ped - W Elev Str - Install Pit Invert Conduit & MEPs	3	30-Oct-26	03-Nov-26	201												
CON-41070	AW - Sep Ped - W Elev Str - Place Pit Invert Concrete	1	04-Nov-26	04-Nov-26	201												
CON-41080	AW - Sep Ped - W Elev Str - Install Pit Wall Rebar	4	05-Nov-26	10-Nov-26	201												
CON-41090	AW - Sep Ped - W Elev Str - Install Pit Wall Conduit & MEPs	5	12-Nov-26	18-Nov-26	201												
CON-41100	AW - Sep Ped - W Elev Str - Install Pit Wall Embeds	3	19-Nov-26	23-Nov-26	201												
CON-41110	AW - Sep Ped - W Elev Str - Form Pit Walls	5	24-Nov-26	04-Dec-26	201												
CON-41120	AW - Sep Ped - W Elev Str - Place Pit Wall Concrete	4	08-Dec-26	11-Dec-26	201												
CON-41130	AW - Sep Ped - W Elev Str - Cure Pit Walls	7	12-Dec-26	18-Dec-26	298												
CON-41140	AW - Sep Ped - W Elev Str - Strip Pit Walls	1	28-Dec-26	28-Dec-26	202												
CON-41150	AW - Sep Ped - W Elev Str - Set & Protect Elevator Cylinders	4	29-Dec-26	04-Jan-27	202												
Const | Ancillary Works | Sepulveda Ped Bridge | West Access | Ped Structure		100	06-Jan-27	26-May-27	482												
Const | Ancillary Works | Sepulveda Ped Bridge | West Access | Ped Structure | Fndtns & Sub		23	06-Jan-27	05-Feb-27	332												
Const | Ancillary Works | Sepulveda Ped Bridge | West Access | Ped Structure | Fndtns & Sub | SPB-A		20	06-Jan-27	02-Feb-27	383												

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
Actual Level of Effort
Actual Work

Remaining Work
Critical Remaining Work
Milestone

Summary

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
121 of 128

SKANSKA | FLATIRON

Activity	Activity Name	Remaining Duration	Start	Finish	Var - BL	2025	2026	2027	2028	2029
Const | Ancillary Works | Sepulveda Ped Bridge | West Access | Ped Structure | Elevator Machine Room		25	23-Mar-27	26-Apr-27	37					
CON-43180	AW - Sep Ped - W Elev Str - Mach Rm - Install UG Conduits & Piping	5	23-Mar-27	29-Mar-27	370					
CON-43190	AW - Sep Ped - W Elev Str - Mach Rm - FRP Machine Room Foundation	5	30-Mar-27	05-Apr-27	370					
CON-43200	AW - Sep Ped - W Elev Str - Mach Rm - Install CMU Walls	5	06-Apr-27	12-Apr-27	370					
CON-43210	AW - Sep Ped - W Elev Str - Mach Rm - Install Door & Hardware	5	13-Apr-27	19-Apr-27	375					
CON-43220	AW - Sep Ped - W Elev Str - Mach Rm - Install Electrical Devices	5	13-Apr-27	19-Apr-27	375					
CON-43230	AW - Sep Ped - W Elev Str - Mach Rm - Install Fire Protection System	5	13-Apr-27	19-Apr-27	370					
CON-43240	AW - Sep Ped - W Elev Str - Mach Rm - Install Fire Detection System	5	20-Apr-27	26-Apr-27	370					
Const | Ancillary Works | Sepulveda Ped Bridge | West Access | Ped Structure | Misc Finishes		10	13-May-27	24-May-27	48					
CON-43250	AW - Sep Ped - W Elev Str - Misc Fin - Apply Class 1 Concrete Surface Finish	8	13-May-27	24-May-27	464					
CON-43260	AW - Sep Ped - W Elev Str - Misc Fin - Install Handrails & Guardrails	10	13-May-27	26-May-27	482					
CON-43270	AW - Sep Ped - W Elev Str - Misc Fin - Install Light Fixtures	5	13-May-27	19-May-27	447					
CON-43280	AW - Sep Ped - W Elev Str - Misc Fin - Install Cameras & Misc Comms Devices	5	20-May-27	26-May-27	447					
Const | Ancillary Works | Sepulveda Ped Bridge | West Access | Hoistway Structure		112	13-May-27	20-Oct-27	362					
CON-43290	AW - Sep Ped - W Elev Str - Hstwy - Install Hoistway Structural Steel Frame	15	13-May-27	03-Jun-27	332					
CON-43300	AW - Sep Ped - W Elev Str - Hstwy - Install Hoistway Roof Metal Decking	3	04-Jun-27	06-Jun-27	332					
CON-43310	AW - Sep Ped - W Elev Str - Hstwy - Install Hoistway Roofing Material	6	09-Jun-27	16-Jun-27	332					
CON-43320	AW - Sep Ped - W Elev Str - Hstwy - Install Hoistway Roof Drains & Vents	2	17-Jun-27	18-Jun-27	332					
CON-43330	AW - Sep Ped - W Elev Str - Hstwy - Install Hoistway MEPs	10	17-Jun-27	30-Jun-27	406					
CON-43340	AW - Sep Ped - W Elev Str - Hstwy - Install Hoistway Upper Glazing	15	01-Jul-27	22-Jul-27	406					
CON-43350	AW - Sep Ped - W Elev Str - Hstwy - Install Hoistway Lower Glazing	20	23-Sep-27	20-Oct-27	362					
Const | Ancillary Works | Sepulveda Ped Bridge | East Access		48	06-Oct-26	18-Dec-26	201					
Const | Ancillary Works | Sepulveda Ped Bridge | East Access | Elevator Pits		48	06-Oct-26	18-Dec-26	201					
CON-42130	AW - Sep Ped - E Elev Str - Excavate & Shore Elevator Pit	1	06-Oct-26	12-Oct-26	200					
CON-42140	AW - Sep Ped - E Elev Str - Install In Ground Cylinder Casing	6	13-Oct-26	19-Oct-26	200					
CON-42150	AW - Sep Ped - E Elev Str - Install Pit Invert Rebar	3	20-Oct-26	22-Oct-26	200					
CON-42160	AW - Sep Ped - E Elev Str - Install Pit Invert Conduit & MEPs	3	23-Oct-26	27-Oct-26	200					
CON-42170	AW - Sep Ped - E Elev Str - Place Pit Invert Concrete	1	28-Oct-26	28-Oct-26	200					
CON-42180	AW - Sep Ped - E Elev Str - Install Pit Wall Rebar	4	29-Oct-26	03-Nov-26	200					
CON-42190	AW - Sep Ped - E Elev Str - Install Pit Wall Conduit & MEPs	6	04-Nov-26	10-Nov-26	200					
CON-42200	AW - Sep Ped - E Elev Str - Install Pit Wall Embeds	3	12-Nov-26	16-Nov-26	200					
CON-42210	AW - Sep Ped - E Elev Str - Form Pit Walls	6	17-Nov-26	24-Nov-26	200					
CON-42220	AW - Sep Ped - E Elev Str - Place Pit Wall Concrete	4	25-Nov-26	03-Dec-26	200					
CON-42230	AW - Sep Ped - E Elev Str - Cure Pit Walls	7	04-Dec-26	10-Dec-26	200					
CON-42240	AW - Sep Ped - E Elev Str - Strip Pit Walls	1	11-Dec-26	11-Dec-26	201					
CON-42250	AW - Sep Ped - E Elev Str - Set & Protect Elevator Cylinders	4	15-Dec-26	18-Dec-26	201					
Const | Ancillary Works | Sepulveda Ped Bridge | East Access | Ped Structure		78	28-Dec-26	16-Apr-27	510					
Const | Ancillary Works | Sepulveda Ped Bridge | East Access | Ped Structure | Fndtns & Sub		23	28-Dec-26	28-Jan-27	337					
Const | Ancillary Works | Sepulveda Ped Bridge | East Access | Ped Structure | Fndtns & Sub | SPB-C		19	28-Dec-26	22-Jan-27	341					
CON-42580	AW - Sep Ped - E Elev Str - SPB-C - Install CDDH Shaft(s)	3	28-Dec-26	30-Dec-26	201					
CON-42590	AW - Sep Ped - E Elev Str - SPB-C - Cure Shaft	7	31-Dec-26	06-Jan-27	503					
CON-42600	AW - Sep Ped - E Elev Str - SPB-C - Prep Transition Zone/Set Column Cage & Guy	4	31-Dec-26	06-Jan-27	342					

Date Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
Actual Level of Effort
Actual Work

Remaining Work
Critical Remaining Work
Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 18
123 of 128

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF var BL	2025	2026	2027	2028	2029	2030
CON-43490	AW - Sep Ped - E Elev Str - Mach Rm - Install CMU Walls	5	29-Mar-27	02-Apr-27	376						
CON-43500	AW - Sep Ped - E Elev Str - Mach Rm - Install Door & Hardware	5	05-Apr-27	08-Apr-27	381						
CON-43510	AW - Sep Ped - E Elev Str - Mach Rm - Install Electrical Devices	5	05-Apr-27	08-Apr-27	381						
CON-43520	AW - Sep Ped - E Elev Str - Mach Rm - Install Fire Protection System	5	05-Apr-27	08-Apr-27	378						
CON-43530	AW - Sep Ped - E Elev Str - Mach Rm - Install Fire Detection System	5	12-Apr-27	15-Apr-27	378						
Const | Ancillary Works | Sepulveda Ped Bridge | East Access | Ped Structure | Misc Finishes		10	29-Mar-27	09-Apr-27	376						
CON-43540	AW - Sep Ped - E Elev Str - Misc Fin - Apply Class 1 Concrete Surface Finish	3	29-Mar-27	07-Apr-27	497						
CON-43550	AW - Sep Ped - E Elev Str - Misc Fin - Install Handrails & Guardrails	10	29-Mar-27	09-Apr-27	515						
CON-43580	AW - Sep Ped - E Elev Str - Misc Fin - Install Light Fixtures	5	29-Mar-27	02-Apr-27	480						
CON-43570	AW - Sep Ped - E Elev Str - Misc Fin - Install Cameras & Misc Comms Devices	5	05-Apr-27	09-Apr-27	480						
Const | Ancillary Works | Sepulveda Ped Bridge | East Access | Hostway Structure		145	29-Mar-27	20-Oct-27	352						
CON-43590	AW - Sep Ped - E Elev Str - Hstwy - Install Hostway Structural Steel Frame	15	29-Mar-27	16-Apr-27	365						
CON-43580	AW - Sep Ped - E Elev Str - Hstwy - Install Hostway Roof Metal Decking	3	19-Apr-27	21-Apr-27	365						
CON-43600	AW - Sep Ped - E Elev Str - Hstwy - Install Hostway Roofing Material	5	22-Apr-27	29-Apr-27	365						
CON-43610	AW - Sep Ped - E Elev Str - Hstwy - Install Hostway Roof Drains & Vents	2	30-Apr-27	03-May-27	365						
CON-43620	AW - Sep Ped - E Elev Str - Hstwy - Install Hostway MEPs	10	30-Apr-27	13-May-27	438						
CON-43640	AW - Sep Ped - E Elev Str - Hstwy - Install Hostway Upper Glazing	15	14-May-27	04-Jun-27	438						
CON-43650	AW - Sep Ped - E Elev Str - Hstwy - Install Hostway Lower Glazing	20	23-Sep-27	20-Oct-27	599						
Const | Ancillary Works | Sepulveda Ped Bridge | Elevators		18	26-Jun-27	24-Jul-27	334						
CON-43660	AW - Sep Ped - Elev - Final Elevator Adjustments	20	07-Dec-27	12-Jan-28	334						
CON-44030	AW - Sep Ped - Elev - Pre-Test Elevators	5	13-Jan-28	19-Jan-28	334						
CON-44040	AW - Sep Ped - Elev - Conduct Elevator State Inspections	2	20-Jan-28	21-Jan-28	334						
CON-44050	AW - Sep Ped - Elev - Receive Elevator Operating Permits from State	1	24-Jan-28	24-Jan-28	334						
Const | Ancillary Works | Sepulveda Ped Bridge | Elevators | West		109	26-Jun-27	03-Dec-27	332						
CON-43720	AW - Sep Ped - West Elev - Hostway Survey & Layout	5	28-Jun-27	02-Jul-27	332						
CON-43730	AW - Sep Ped - West Elev - Install Guidelines & Bracing	15	06-Jul-27	26-Jul-27	332						
CON-43740	AW - Sep Ped - West Elev - Align / Adjust Guidelines	6	27-Jul-27	03-Aug-27	332						
CON-43750	AW - Sep Ped - West Elev - Install Elev Mach Room Equipment	25	04-Aug-27	08-Sep-27	332						
CON-43760	AW - Sep Ped - West Elev - Build Elevator Cab Platform	10	09-Sep-27	22-Sep-27	332						
CON-43770	AW - Sep Ped - West Elev - Install Elevator Sills & Dorways	10	23-Sep-27	05-Oct-27	332						
CON-43780	AW - Sep Ped - West Elev - Install Fixture Boxes, Conduit & Cable in Hostway	5	07-Oct-27	18-Oct-27	332						
CON-43790	AW - Sep Ped - West Elev - Build Out Cab Interior	20	18-Oct-27	16-Nov-27	332						
CON-43800	AW - Sep Ped - West Elev - Startup Elevators	10	17-Nov-27	03-Dec-27	332						
Const | Ancillary Works | Sepulveda Ped Bridge | Elevators | East		109	26-Jun-27	03-Dec-27	332						
CON-43810	AW - Sep Ped - East Elev - Hostway Survey & Layout	5	28-Jun-27	02-Jul-27	332						
CON-43820	AW - Sep Ped - East Elev - Install Guidelines & Bracing	15	06-Jul-27	26-Jul-27	332						
CON-43830	AW - Sep Ped - East Elev - Align / Adjust Guidelines	6	27-Jul-27	03-Aug-27	332						
CON-43840	AW - Sep Ped - East Elev - Install Elev Mach Room Equipment	25	04-Aug-27	08-Sep-27	332						
CON-43850	AW - Sep Ped - East Elev - Build Elevator Cab Platform	10	09-Sep-27	22-Sep-27	332						
CON-43860	AW - Sep Ped - East Elev - Install Elevator Sills & Dorways	10	23-Sep-27	05-Oct-27	332						
CON-43870	AW - Sep Ped - East Elev - Install Fixture Boxes, Conduit & Cable in Hostway	5	07-Oct-27	18-Oct-27	332						
CON-43880	AW - Sep Ped - East Elev - Build Out Cab Interior	20	19-Oct-27	16-Nov-27	332						

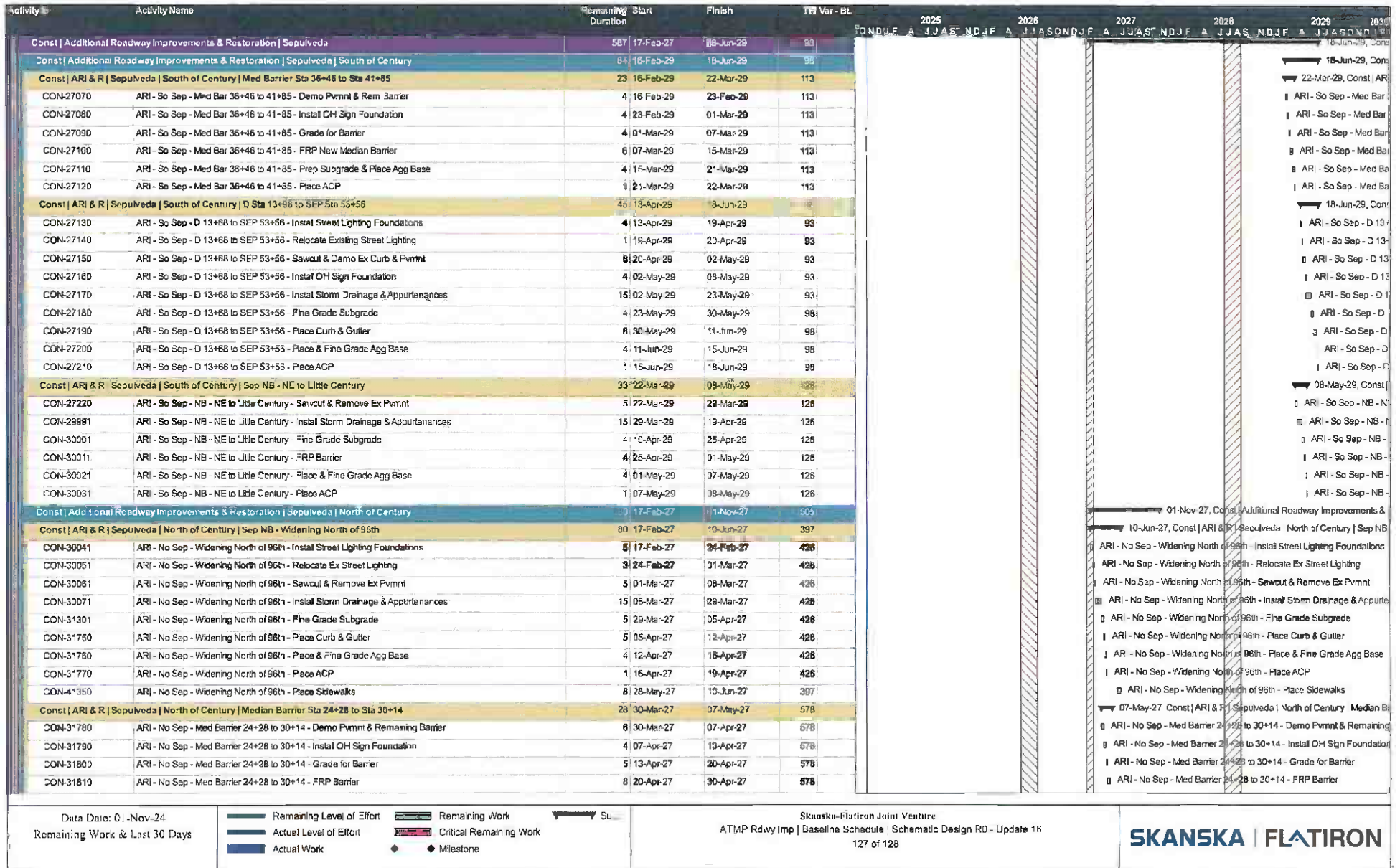
Data Date: 01-Nov-24
Remaining Work & Last 30 Days

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Actual Level of Effort
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Remaining Work
Critical Remaining Work
Milestone

Summary

Skanska-Matiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
125 of 128

SKANSKA | FLATIRON



Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var	RI	2025	2026	2027	2028	2029	2030
CON-31820	ARI - No Sep - Med Barrier 24+28 to 30+14 - Prep Subgrade & Place Agg Base	4	30-Apr-27	06-May-27	578								
CON-31830	ARI - No Sep - Ved Barrier 24+28 to 30+14 - Place ACP	1	06-May-27	07-May-27	578								
Const | ARI & R | Sepulveda | North of Century | Median Barrier Sta 19+75 to Sta 21+10													
CON-31840	ARI - No Sep - Med Barrier 19+75 to 21+10 - Demo Pmnt & Remaining Barrier	2	28-May-27	02-Jun-27	551								
CON-31850	ARI - No Sep - Med Barrier 19+75 to 21+10 - Grade for Barrier	3	02-Jun-27	07-Jun-27	551								
CON-31860	ARI - No Sep - Med Barrier 19+75 to 21+10 - FRP Barrier	4	07-Jun-27	11-Jun-27	551								
CON-31870	ARI - No Sep - Ved Barrier 19+75 to 21+10 - Prep Subgrade & Place Agg Base	2	11-Jun-27	15-Jun-27	551								
CON-31880	ARI - No Sep - Med Barrier 19+75 to 21+10 - Place ACP	1	15-Jun-27	16-Jun-27	551								
Const | ARI & R | Sepulveda | North of Century | Sep SB - Sta 17+38 to Sta 34+36													
CON-31890	ARI - No Sep - Sep SB 17+38 to 34+36 - Sawcut & Demo Ex Pmnt & Temp Ramo	5	20-Aug-27	27-Aug-27	505								
CON-31950	ARI - No Sep - Sep SB 17+38 to 34+36 - Install Street Lighting Foundations	3	27-Aug-27	01-Sep-27	505								
CON-31960	ARI - No Sep - Sep SB 17+38 to 34+36 - Install Storm Drainage & Appurtenances	15	01-Sep-27	23-Sep-27	505								
CON-31970	ARI - No Sep - Sep SB 17+38 to 34+36 - Fine Grade Subgrade	8	23-Sep-27	05-Oct-27	505								
CON-31980	ARI - No Sep - Sep SB 17+38 to 34+36 - Place Curb & Gutter	10	05-Oct-27	19-Oct-27	505								
CON-31990	ARI - No Sep - Sep SB 17+38 to 34+36 - Place & Fine Grade Agg Base	6	19-Oct-27	29-Oct-27	505								
CON-32000	ARI - No Sep - Sep SB 17+38 to 34+36 - Place ACP	1	29-Oct-27	01-Nov-27	505								
Const | Additional Roadway Improvements & Restoration | Jetway													
CON-15560	JW - Install MOT Measures on Jetway & Open in Ultimate Configuration	2	27-Sep-28	28-Sep-28	185	-365							
Const | Additional Roadway Improvements & Restoration | Jetway - 98th to 98th													
CON-15570	JW - 96 - 98 - Demo Curb, Gutter & Pavements	3	11-Oct-27	13-Oct-27	387	-12							
CON-15590	JW - 96 - 98 - Install Drainage @ NW Corner 98th/Jetway	6	14-Oct-27	21-Oct-27	387								
CON-15630	JW - 96 - 98 - Install Street Light/Traffic Signal Fndns & Conduit	2	22-Oct-27	25-Oct-27	387	-507							
CON-15640	JW - 96 - 98 - Finegrade Subgrade	4	28-Oct-27	29-Oct-27	387	-541							
CON-15650	JW - 96 - 98 - Place & Finegrade Agg Base	4	01-Nov-27	04-Nov-27	387	-515							
CON-15660	JW - 96 - 98 - Install Curb & Gutter	5	05-Nov-27	12-Nov-27	387	-454							
CON-15680	JW - 96 - 98 - Place ACP	1	15-Nov-27	15-Nov-27	387	-521							
CON-15780	JW - 96 - 98 - Grade for Sidewalks	3	18-Nov-27	18-Nov-27	387	-515							
CON-15800	JW - 96 - 98 - Place Sidewalks	3	19-Nov-27	23-Nov-27	387	-535							
CON-16120	JW - 96 - 98 - Set SL/TC Poles & Fixtures	3	24-Nov-27	01-Dec-27	387	-470							
Const | Additional Roadway Improvements & Restoration | Jetway - Century to 98th													
CON-49381	JW - Cen - 98 - Demo Curb, Gutter & Pavements	3	17-Aug-28	21-Aug-28	185								
CON-49401	JW - Cen - 98 - Install Street Light/Traffic Signal Fndns & Conduit	2	23-Aug-28	23-Aug-28	185								
CON-49411	JW - Cen - 98 - Finegrade Subgrade	4	24-Aug-28	29-Aug-28	185								
CON-49421	JW - Cen - 98 - Place & Finegrade Agg Base	4	30-Aug-28	06-Sep-28	185								
CON-49431	JW - Cen - 98 - Install Curb & Gutter	5	06-Sep-28	12-Sep-28	185								
CON-49441	JW - Cen - 98 - Place ACP	1	13-Sep-28	13-Sep-28	185								
CON-49451	JW - Cen - 98 - Grade for Sidewalks	3	14-Sep-28	18-Sep-28	185								
CON-49461	JW - Cen - 98 - Place Sidewalks	3	19-Sep-28	21-Sep-28	185								
CON-49471	JW - Cen - 98 - Set SL/TC Poles & Fixtures	3	22-Sep-28	25-Sep-28	185								

Data Date: 01-Nov-24
Remaining Work & Last 30 Days

Remaining Level of Effort
Actual Level of Effort
Actual Work

Remaining Work
Critical Remaining Work
Milestone

Success

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
128 of 128

SKANSKA FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var BL	2025	2026	2027	2028	2029
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16											
DD_MP2_2035	Develop DD Main Work Package #2- Design Unit 2		6/01-Apr-24 A	06-Nov-24	0	-6					
DD_MP2_2070	Perform Constructability Review of DD Main Work Package #2- DU-2		4/15-Oct-24 A	07-Nov-24	0	-2					
DD_MP2_2080	Conduct DD Main Work Package #2 Quality Review - DU-2		9/15-Oct-24 A	14-Nov-24	0	0					
DD_MP2_2040	Perform DQC on DD Main Work Package #2- Design Unit 2		5/24-Oct-24 A	08-Nov-24	0	-6					
DD_MP2_2130	Submit DD Main Work Package #2 to LAWA/AHJ - DU-2		1/15-Nov-24	15-Nov-24	0	0					
MS-20040	Milestone T05.2, PW-1, PB-1 | Task Order #5 | Des Dev DU-2,PW-1,PB-1 Complete | NLT 15NOV24		0	15-Nov-24	0						
DS-11270	CD - Develop Design Main Work Package #2 inc Comment Resolution to JFP Docs		35/18-Nov-24	09-Jan-25	7	0					
GMP-10080	Develop Cost Estimate & Procure Subs | MWP #2		65/10-Jan-25	10-Apr-25	11	0					
GMP-10100	Negotiate GMP | MWP #2		64/11-Apr-25	11-Jul-25	11	-22					
GMP-10130	LAWA-ADP Steering Committee Preparation | MWP #2		5/14-Jul-25	18-Jul-25	11	-22					
GMP-10140	LAWA- Conduct Steering Committee Meeting | MWP #2		1/21-Jul-25	21-Jul-25	11	-22					
GMP-10150	LAWA- Finalize Board Report & Upload | MWP #2		5/22-Jul-25	28-Jul-25	11	-22					
GMP-10160	LAWA- Agenda Review | MWP #2		1/05-Aug-25	05-Aug-25	11	-22					
GMP-10190	LAWA- Conduct BOAC Meeting | MWP #2		1/21-Aug-25	21-Aug-25	0	-1					
GMP-10200	LAWA- City Council Review & Contract Execution | MWP #2		90/22-Aug-25	19-Nov-25	0	-35					
GA-10070	Execution Of Driving Subcontracts		20/20-Nov-25	19-Dec-25	0	-25					
MS-10270	Notice to Proceed | Phase 2 | Main Work Package #2 | Construction		0/20-Nov-25		0	-35					
SUB-10270	Prepare & Submit Initial CIDH Reinforcing Steel Shop Drawings		20/22-Dec-25	20-Jan-26	0	-25					
SUB-10340	Review & Approve Initial CIDH Reinforcing Steel Shop Drawings		14/21-Jan-26	03-Feb-26	0	-39					
PR-10040	Fabricate Initial CIDH Reinforcing Steel		20/04-Feb-26	03-Mar-26	0	-26					
MOB-10080	Mobilize CIDH Subcontractor Oscillator 1 - South of 99th		5/26-Feb-26	03-Mar-26	0	-21					
CON-23490	S2 - A-F6a - A-B18 - Install CIDH Shaft(s)		4/04-Mar-26	09-Mar-26	0	-20					
CON-23710	S2 - A-F6b - A-B19 - Install CIDH Shaft(s)		4/10-Mar-26	13-Mar-26	0	0					
CON-23820	S2 - A-F7 - A-B20 - Install CIDH Shaft(s)		4/16-Mar-26	19-Mar-26	0	6					
CON-27630	S2 - D2-F3 - D2-B7R - Install CIDH Shaft(s)		4/20-Mar-26	25-Mar-26	0	8					
CON-27530	S2 - D2-F3 - D2-B7L - Install CIDH Shaft(s)		4/26-Mar-26	31-Mar-26	0	8					
CON-27330	S2 - D2-F3 - D2-B8L - Install CIDH Shaft(s)		4/01-Apr-26	06-Apr-26	0	18					
CON-27430	S2 - D2-F3 - D2-B8R - Install CIDH Shaft(s)		4/07-Apr-26	10-Apr-26	0	8					
CON-24040	S2 - A-F7 - A-B21 - Install CIDH Shaft(s)		4/13-Apr-26	16-Apr-26	0	0					
CON-26930	S5 - D2-F4 - D2-B10 - Install CIDH Shaft(s)		4/17-Apr-26	22-Apr-26	0	34					
CON-32520	S5 - D2-F5 - D2-B11 - Install CIDH Shaft(s)		4/23-Apr-26	28-Apr-26	0	34					
CON-31590	S2 - A-F8 - A-B25 - Install CIDH Shaft(s)		4/29-Apr-26	04-May-26	0	3					
CON-31480	S2 - A-F8 - A-B24 - Install CIDH Shaft(s)		4/05-May-26	08-May-26	0	6					
CON-17230	S2 - D2-F2 - D2-B5R - Install CIDH Shaft(s)		4/11-May-26	14-May-26	0	-64					
CON-17100	S2 - D2-F2 - D2-B5L - Install CIDH Shaft(s)		4/15-May-26	20-May-26	0	-64					

Activity ID	Activity Name	Remaining Duration	Start	Finish	TP	var BL	2025	2026	2027	2028	2029	2030
CON-28030	S2 - D2-F2b - D2-B6R - Install CIDH Shaft(s)	4	28-May-26	02-Jun-26	0	-52						
CON-24150	S2 - A-F8 - A-B23 - Install CIDH Shaft(s)	4	03-Jun-26	08-Jun-26	0	-10						
CON-23930	S2 - A-F7 - A-B22 - Install CIDH Shaft(s)	4	08-Jun-26	12-Jun-26	0	-10						
CON-23940	S2 - A-F7 - A-B22 - Cure Shaft	7	13-Jun-26	19-Jun-26	2	-14						
CON-23960	S2 - A-F7 - A-B22 - Place Transition Zone Concrete	1	22-Jun-26	22-Jun-26	0	-10						
CON-23970	S2 - A-F7 - A-B22 - Cure Transition Zone Concrete	7	23-Jun-26	29-Jun-26	0	-14						
CON-24000	S2 - A-F7 - A-B22 - Place Column Concrete	1	30-Jun-26	30-Jun-26	0	-10						
CON-24010	S2 - A-F7 - A-B22 - Cure Column Concrete	7	01-Jul-26	07-Jul-26	0	-14						
CON-24020	S2 - A-F7 - A-B22 - Strip Column Forms 1 Day Minimum Removal	1	08-Jul-26	08-Jul-26	0	-9						
CON-25710	S2 - A-F7 - FW - Install Grillage/Bents/Bent Caps/Posts	6	08-Jul-26	15-Jul-26	0	-9						
CON-25720	S2 - A-F7 - S&S - Install Soffit & Safety Rail	20	16-Jul-26	12-Aug-26	0	-14						
CON-25770	S2 - A-F7 - S&S - Form Exterior Girder & OH	18	31-Jul-26	26-Aug-26	0	-1						
CON-25780	S2 - A-F7 - S&S - Place Soffit Rebar	8	21-Aug-26	01-Sep-26	0	3						
CON-25790	S2 - A-F7 - S&S - Place Stem Rebar	8	27-Aug-26	08-Sep-26	0	7						
CON-25800	S2 - A-F7 - S&S - Install PT Ducts	3	08-Sep-26	11-Sep-26	0	7						
CON-25810	S2 - A-F7 - S&S - Form Interior Girder & Walkways	24	14-Sep-26	15-Oct-26	0	5						
CON-25820	S2 - A-F7 - S&S - Form Diaphragms & Blockouts	19	09-Oct-26	22-Oct-26	0	2						
CON-25730	S2 - A-F7 - S&S - Place Soffit & Stem Concrete	2	23-Oct-26	28-Oct-26	6	2						
CON-25750	S2 - A-F7 - S&S - Strip Interior Girder Forms & Walkways	9	27-Oct-26	06-Nov-26	0	5						
CON-25760	S2 - A-F7 - S&S - Strip Diaphragms	6	04-Nov-26	12-Nov-26	0	4						
CON-25830	S2 - A-F7 - DECK - Form Lost Deck	12	13-Nov-26	03-Dec-26	0	4						
CON-25850	S2 - A-F7 - DECK - Form EOD	7	04-Dec-26	16-Dec-26	0	4						
CON-25840	S2 - A-F7 - DECK - Place Deck Rebar	8	17-Dec-26	05-Jan-27	0	4						
CON-25900	S2 - A-F7 - DECK - Dry-run Bridge Finishing Machine	1	06-Jan-27	06-Jan-27	0	4						
CON-25880	S2 - A-F7 - DECK - Place Bridge Deck Concrete	1	07-Jan-27	07-Jan-27	0	4						
CON-25890	S2 - A-F7 - DECK - Cure Bridge Deck Concrete	7	08-Jan-27	14-Jan-27	0	9						
CON-25910	S2 - A-F7 - DECK - Strip Screed Rails & EOD	3	15-Jan-27	19-Jan-27	0	-1						
CON-25921	S2 - A-F7 - DECK - Strip Ext Girder & OH Forms	10	19-Jan-27	01-Feb-27	0	-12						
CON-48251	S2 - A-F7 - PT - Install PT Strands	4	27-Jan-27	01-Feb-27	0							
CON-48261	S2 - A-F7 - PT - Stress & Lock-off	3	02-Feb-27	04-Feb-27	0							
CON-48271	S2 - A-F7 - PT - Grout PT Ducts	2	06-Feb-27	08-Feb-27	0							
CON-48281	S2 - A-F7 - PT - F/P/S PT Blockouts	3	09-Feb-27	11-Feb-27	0							
CON-26260	S2 - BrA - A-F5/A-F6 - FRP Hinge Lower Seat	10	12-Feb-27	28-Feb-27	0	-16						
CON-26270	S2 - BrA - A-F5/A-F6 - FRP Hinge Upper Seat	10	01-Mar-27	12-Mar-27	0	-16						
CON-26280	S2 - BrA - A-F5/A-F6 - Cure Hinges	10	13-Mar-27	22-Mar-27	0	-22						
CON-48231	S2 - A-F6a - FW - Remove Falsework	5	23-Mar-27	29-Mar-27	0							
CON-47121	S2 - BrA - FRP Bridge Rail Frame 5	7	30-Mar-27	07-Apr-27	0							
CON-48241	S2 - A-F6b - FW - Remove Falsework	5	30-Mar-27	05-Apr-27	0							

Data Date: 01-Nov-24
Longest Path
Float Path = 1

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Summary

Skanska-Flatiron Joint Venture
ATP Rwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
2 of 7

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var SL	2025	2026	2027	2028	2029	2030
CON-47171	S2 - Br A - Prep Deck & Perform Photograph Testing Frames 6, 7 & 8	5	08-Apr-27	14-Apr-27	0							
CON-47201	S2 - Br A - Grind & Groove Frames 6, 7 & 8	7	15-Apr-27	23-Apr-27	0							
CON-22390	S3 - Seg A - Install Street Lighting Fixtures Bridge A	8	26-Apr-27	05-May-27	0	-251						
CON-20860	S3 - Seg A - Install Signs & Pavmnt Mkgs for Seg A with Temp Connection	5	08-May-27	12-May-27	0	-8						
CON-32150	S3 - Establish MOT Measures Sepulveda Traffic Switch To Temp Pavement Segment A Ramp	2	13-May-27	14-May-27	0	-8						
CON-35350	S4 - Demo Existing Hook Ramp Bridge - Enabling Work Seg I, K & P	10	17-May-27	28-May-27	0	-8						
CON-15150	S4 - Wal A-3 - Remove Temp Widening Pmnts	3	26-May-27	28-May-27	0	-6						
CON-15130	S4 - Wal A-3 - Excavate for First Level of Soil Nails	3	01-Jun-27	03-Jun-27	0	15						
CON-15160	S4 - Wal A-3 - Install First Level Soil Nails & Grout	7	04-Jun-27	14-Jun-27	0	-2						
CON-15400	S4 - Wal A-3 - Cure First Level Soil Nails & Tension	5	15-Jun-27	21-Jun-27	0	-343						
CON-15410	S4 - Wal A-3 - Install First Level Rebar & Shotcrete	3	22-Jun-27	24-Jun-27	0	-345						
CON-46530	S4 - Wal A-3 - Excavate for Second Level of Soil Nails	3	25-Jun-27	28-Jun-27	0							
CON-46540	S4 - Wal A-3 - Install Second Level Soil Nails & Grout	7	30-Jun-27	08-Jul-27	0							
CON-46550	S4 - Wal A-3 - Cure Second Level Soil Nails & Tension	5	12-Jul-27	18-Jul-27	0							
CON-46560	S4 - Wal A-3 - Install Second Level Rebar & Shotcrete	3	19-Jul-27	21-Jul-27	0							
CON-46570	S4 - Wal A-3 - Excavate for Third Level of Soil Nails	2	22-Jul-27	23-Jul-27	0							
CON-46580	S4 - Wal A-3 - Install Third Level Soil Nails & Grout	3	26-Jul-27	28-Jul-27	0							
CON-46590	S4 - Wal A-3 - Cure Third Level Soil Nails & Tension	5	29-Jul-27	04-Aug-27	0							
CON-46600	S4 - Wal A-3 - Install Third Level Rebar & Shotcrete	2	05-Aug-27	08-Aug-27	0							
CON-46610	S4 - Wal A-3 - Excavate for Fourth Level of Soil Nails	2	09-Aug-27	10-Aug-27	0							
UTIL-11990	Util Relo - LAWA Box Culvert - Line B - Exc & Shore for West Tie In	5	11-Aug-27	17-Aug-27	0							
UTIL-12000	Util Relo - LAWA Box Culvert - Line B - Sawcut & Remove Existing Box West	2	18-Aug-27	19-Aug-27	0							
UTIL-12010	Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF Remaining B Sta 2+80 to Sta 3+50 RCP @ West Tie In -	5	20-Aug-27	26-Aug-27	0							
UTIL-12100	Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF Remaining B Sta 2+80 to Sta 3+50 RCP @ West Tie In -	5	27-Aug-27	02-Sep-27	0							
UTIL-12110	Util Relo - LAWA Box Culvert - Line B - Exc/Lay/BF Remaining B Sta 2+80 to Sta 3+50 RCP @ West Tie In -	5	03-Sep-27	10-Sep-27	0							
UTIL-12020	Util Relo - LAWA Box Culvert - Line B - FRP Manhole @ West Tie In	5	13-Sep-27	17-Sep-27	0							
UTIL-12030	Util Relo - LAWA Box Culvert - Line B - Remove SOE @ West Tie In	5	20-Sep-27	24-Sep-27	0							
UTIL-11970	Util Relo - LAWA Box Culvert - Line B - Remove Ex RCP @ D2-A13	1	27-Sep-27	27-Sep-27	0							
CON-32510	S4 - D2-F4 - D2-A13 - Install CIDH Shaft(s)	7	28-Sep-27	06-Oct-27	0	-81						
CON-35610	S4 - Wal K-2 - Install CIDH Shafts	6	07-Oct-27	14-Oct-27	0	-61						
CON-35620	S4 - Wal K-2 - Final Cure CIDH Shafts	7	15-Oct-27	21-Oct-27	0	-72						
CON-35630	S4 - Wal K-2 - Excavate/Sandblast/Fine Grd for Footing Section 1	4	22-Oct-27	27-Oct-27	0	-54						
CON-35640	S4 - Wal K-2 - Over Excavate for Footing Section 2	3	28-Oct-27	01-Nov-27	0	-58						
CON-49511	S4 - Wal K-2 - Place Sol Corredion for Footing Section 2	3	02-Nov-27	04-Nov-27	0							
CON-49521	S4 - Wal K-2 - Excavate Keyway/Fine Grd for Footing Section 2	1	05-Nov-27	05-Nov-27	0							
CON-35680	S4 - Wal K-2 - FRP Footing Section 2	4	08-Nov-27	12-Nov-27	0	-69						
CON-35690	S4 - Wal K-2 - FRP Panels Section 2	5	15-Nov-27	19-Nov-27	0	-59						
CON-35700	S4 - Wal K-2 - Cure Section 2	1	20-Nov-27	20-Nov-27	1	-84						

Date Date: 01-Nov-24
Longest Path
Float Path = 1

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
3 of 7

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var BL	2025	2026	2027	2028	2029	2030
CON-35720	S4 - Wall K-2 - Strip Panels Section 2	2	22-Nov-27	23-Nov-27	0	-68						
CON-31311	S4 - I 17+50 to 21+44 - Fine Grade Subgrade	2	24-Nov-27	30-Nov-27	0	-75						
CON-15270	S4 - Br 1 - FRP Approach Slab I-A1	5	31-Dec-27	08-Dec-27	0	-388						
CON-31350	S4 - I 10+00 to 21+44 - Place Pavement	1	30-Dec-27	09-Dec-27	0	-68						
CON-31330	S4 - I 17+50 to 21+44 - FRP Traffic Barriers	4	10-Dec-27	16-Dec-27	0	-79						
CON-31360	S4 - I 10+00 to 21+44 - Construct Final Roadway Finishes	10	17-Dec-27	07-Jan-28	0	-72						
CON-32290	S5 - Demo Existing WB Century Over Sepulveda - Enabling Work Seg K & P	10	10-Jan-28	21-Jan-28	0	-72						
CON-3265C	S5 - P-F1 - P-A1 - Install CIDH Shaft(s)	7	24-Jan-28	01-Feb-28	0	-72						
CON-32740	S5 - P-F1 - P-A1 - Excavate Footing	4	02-Feb-28	07-Feb-28	0	-72						
CON-32820	S5 - P-F1 - P-A1 - Prep CIDH For Footing Construction	3	08-Feb-28	10-Feb-28	0	-72						
CON-32920	S5 - P-F1 - P-A1 - Form Footing/Dowel Template	3	11-Feb-28	15-Feb-28	0	-72						
CON-33080	S5 - P-F1 - P-A1 - Place Rebar	3	18-Feb-28	18-Feb-28	0	-72						
CON-33190	S5 - P-F1 - P-A1 - Place Footing Concrete	1	22-Feb-28	22-Feb-28	0	-72						
CON-33250	S5 - P-F1 - P-A1 - Strip Footing Forms/Dowel Template	1	23-Feb-28	23-Feb-28	0	-72						
CON-33310	S5 - P-F1 - P-A1 - Blast/Prep For Stems & Wings	1	24-Feb-28	24-Feb-28	0	-72						
CON-33370	S5 - P-F1 - P-A1 - Form 1S Stems/Wings/Backwall	3	25-Feb-28	28-Feb-28	0	-72						
CON-33440	S5 - P-F1 - P-A1 - Place Stem & Wing Rebar	3	01-Mar-28	03-Mar-28	0	-72						
CON-33530	S5 - P-F1 - P-A1 - Form 2S Stems & Wings	2	06-Mar-28	07-Mar-28	0	-72						
CON-33620	S5 - P-F1 - P-A1 - Place Stem & Wing Concrete	1	08-Mar-28	08-Mar-28	0	-72						
CON-33660	S5 - P-F1 - P-A1 - Cure Stem & Wing Concrete	7	09-Mar-28	15-Mar-28	0	-119						
CON-33670	S5 - P-F1 - P-A1 - Strip Stem & Wing Forms / Rough Surface Finish	2	10-Mar-28	13-Mar-28	0	-73						
CON-33720	S5 - P-F1 - P-A1 - Place Backwall Rebar	1	14-Mar-28	14-Mar-28	0	-73						
CON-33750	S5 - P-F1 - P-A1 - Form 2S Backwall	1	15-Mar-28	15-Mar-28	0	-73						
CON-33780	S5 - P-F1 - P-A1 - Place Backwall Concrete	1	16-Mar-28	16-Mar-28	0	-73						
CON-33830	S5 - P-F1 - P-A1 - Strip Backwall Forms/Clean Bridge Seat / Rough Surface Finish	2	17-Mar-28	20-Mar-28	0	-73						
CON-37470	S5 - P-SP1 - FW - Install Grillage/Bents/Bent Caps/Posts	2	21-Mar-28	22-Mar-28	0	-68						
CON-37460	S5 - P-SP1 - S&S - Install Soffit & Safety Rail	6	23-Mar-28	30-Mar-28	0	-70						
CON-37580	S5 - P-SP3 - S&S - Install Soffit & Safety Rail	6	31-Mar-28	07-Apr-28	0	-85						
CON-46690	S5 - P-SP2 - S&S - Install Soffit & Safety Rail	16	10-Apr-28	01-May-28	0							
CON-45700	S5 - P-SP2 - S&S - Form Exterior Girder & OH	9	26-Apr-28	08-May-28	0							
CON-37380	S5 - P - S&S - Place Soffit Rebar	9	27-Apr-28	09-May-28	0	-92						
CON-37390	S5 - P - S&S - Place Stem Rebar	8	04-May-28	15-May-28	0	-91						
CON-37400	S5 - P - S&S - Install PT Ducts	5	12-May-28	18-May-28	0	-91						
CON-37370	S5 - P - S&S - Form Interior Girder & Walkways	15	16-May-28	06-Jun-28	0	-89						
CON-37440	S5 - P - S&S - Form Diaphragms & Blockouts	5	02-Jun-28	08-Jun-28	0	-85						
CON-37410	S5 - P - S&S - Place Soffit & Stem Concrete	2	09-Jun-28	12-Jun-28	0	-88						
CON-37430	S5 - P - S&S - Strip Interior Girder Forms & Walkways	8	13-Jun-28	22-Jun-28	0	-90						
CON-37480	S5 - P - DECK - Form Lost Deck	8	15-Jun-28	26-Jun-28	0	-87						

Data Date: 01-Nov-24
Longest Path
Float Path = 1

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Sum...

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
4 of 7

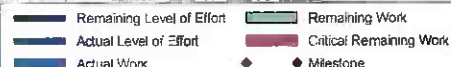
SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var B/L	2025	2026	2027	2028	2029	2030
CON-37500	S5 - P - DECK - Form EOD	5	27-Jun-28	03-Jul-28	0	-88						S5 - P - DECK - Form EOD
CON-37510	S5 - P - DECK - Install Screenshot Rails & Run-Offs	6	28-Jun-28	06-Jul-28	0	-87						S5 - P - DECK - Install Screenshot Rails
CON-37520	S5 - P - DECK - Set-up Bridge Finishing Machine & Work Bridges	3	07-Jul-28	11-Jul-28	0	-89						S5 - P - DECK - Set-up Bridge Fin
CON-37550	S5 - P - DECK - Dry-run Bridge Finishing Machine	1	12-Jul-28	12-Jul-28	0	-87						S5 - P - DECK - Dry-run Bridge Fi
CON-37530	S5 - P - DECK - Place Bridge Deck Concrete	1	13-Jul-28	13-Jul-28	0	-87						S5 - P - DECK - Place Bridge Dec
CON-37560	S5 - P - DECK - Strip Screenshot Rails & EOD	3	14-Jul-28	18-Jul-28	0	-87						S5 - P - DECK - Strip Screenshot Rails
CON-37570	S5 - P - DECK - Strip CJ Bulkheads @ Interface to Gores	2	17-Jul-28	18-Jul-28	0	-89						S5 - P - DECK - Strip CJ Bulkhead
CON-45840	S5 - P - DECK - Strip Exterior Girder & OH Forms	6	17-Jul-28	24-Jul-28	0							S5 - P - DECK - Strip Exterior Gir
CON-45810	S5 - P - PT - Install PT Strands	4	19-Jul-28	24-Jul-28	0							S5 - P - PT - Install PT Strands
CON-45820	S5 - P - PT - Stress & Lock-off	3	25-Jul-28	27-Jul-28	0							S5 - P - PT - Stress & Lock-off
CON-45830	S5 - P - PT - Grout PT Ducts	2	28-Jul-28	31-Jul-28	0							S5 - P - PT - Grout PT Ducts
CON-45850	S5 - P - PT - F/P/S PT Blockouts	3	01-Aug-28	03-Aug-28	0							S5 - P - PT - F/P/S PT Blockouts
CON-49191	S5 - P - PT - Place Backwall Rebar P-A1	4	04-Aug-28	04-Aug-28	0							S5 - P - PT - Place Backwall Rebar
CON-49201	S5 - P - PT - Form 2S Backwall P-A1	4	07-Aug-28	07-Aug-28	0							S5 - P - PT - Form 2S Backwall
CON-49211	S5 - P - PT - Place Backwall Concrete P-A1	1	08-Aug-28	08-Aug-28	0							S5 - P - PT - Place Backwall Con
CON-49261	S5 - P - PT - Place Backwall Concrete P-A4	1	09-Aug-28	09-Aug-28	0							S5 - P - PT - Place Backwall Con
CON-49271	S5 - P - PT - Cure Backwall Concrete P-A4	7	10-Aug-28	16-Aug-28	0							S5 - P - PT - Cure Backwall Con
CON-49281	S5 - P - PT - Strip Backwall Forms/Clean Bridge Seat 1 Day Minimum Removal P-A4	1	16-Aug-28	16-Aug-28	0							S5 - P - PT - Strip Backwall Form
CON-36580	S5 - P 25+08 to 27+03 - P1 - Prep Subgrade & Place Agg Base	4	17-Aug-28	22-Aug-28	0	-102						S5 - P 25+08 to 27+03 - P1 - Pr
CON-36590	S5 - P 25+08 to 27+03 - P1 - Place HMA Base Course Pavement	1	23-Aug-28	23-Aug-28	0	-102						S5 - P 25+08 to 27+03 - P1 - Pl
CON-36550	S5 - P 25+08 to 27+03 - P1 - Place Traffic Barrier	6	24-Aug-28	31-Aug-28	0							S5 - P 25+08 to 27+03 - P1 - Pl
CON-36570	S5 - P - Install Street Lighting Fixtures & Appurtenances	5	01-Sep-28	08-Sep-28	0	-118						S5 - P - Install Street Lighting F
CON-34290	S5 - Seg P - Install Rdwy Signage, Striping & Misc Finishes in Stage 5 Config	5	11-Sep-28	15-Sep-28	0	-59						S5 - Seg P - Install Rdwy Sign
CON-49861	S5 - Open Segment P in Stage 5 Configuration	2	14-Sep-28	15-Sep-28	0							S5 - Open Segment P in Stage
CON-38470	S5 - Demo Existing EB Century Over Sepulveda - Enabling Work Seg M, N & NE	10	18-Sep-28	29-Sep-28	0	-53						S5 - Demo Existing EB Centu
CON-34950	S6 - P-F1 - P-B3L - Install CIDH Shaft(s)	4	02-Oct-28	05-Oct-28	0	-41						S6 - P-F1 - P-B3L - Install CIDH
CON-38480	S6 - P-F2 - P-B4 - Install CIDH Shaft(s)	4	06-Oct-28	11-Oct-28	0	-49						S6 - P-F2 - P-B4 - Install CIDH
CON-38490	S6 - P-F2 - P-B4 - Cure Shaft	7	12-Oct-28	18-Oct-28	0	-70						S6 - P-F2 - P-B4 - Cure Sha
CON-38540	S6 - P-F2 - P-B4 - Place Transition Zone Concrete	1	19-Oct-28	19-Oct-28	0	-49						S6 - P-F2 - P-B4 - Place Tra
CON-38550	S6 - P-F2 - P-B4 - Cure Transition Zone Concrete	7	20-Oct-28	26-Oct-28	0	-70						S6 - P-F2 - P-B4 - Cure Tra
CON-38610	S6 - P-F2 - P-B4 - Place Column Concrete	1	27-Oct-28	27-Oct-28	0	-49						S6 - P-F2 - P-B4 - Place Col
CON-38630	S6 - P-F2 - P-B4 - Strip Column Forms 1 Day Minimum Removal	1	30-Oct-28	30-Oct-28	0	-49						S6 - P-F2 - P-B4 - Strip Colu
CON-38680	S6 - P-F2 - FW - Install Grillage/Bents/Bent Caps/Posts/Stringers	3	31-Oct-28	02-Nov-28	0	-44						S6 - P-F2 - FW - Install Grill
CON-38690	S6 - P-F2 - S&S - Install Soffit & Safety Rail	6	03-Nov-28	13-Nov-28	0	-44						S6 - P-F2 - S&S - Install So
CON-38700	S6 - P-F2 - S&S - Form Exterior Girder & OH	8	14-Nov-28	23-Nov-28	0	-44						S6 - P-F2 - S&S - Form Ex
CON-38710	S6 - P-F2 - S&S - Place Soffit Rebar	5	20-Nov-28	29-Nov-28	0	-44						S6 - P-F2 - S&S - Place So
CON-38720	S6 - P-F2 - S&S - Place Stem Rebar	5	30-Nov-28	07-Dec-28	0	-44						S6 - P-F2 - S&S - Place S
CON-38730	S6 - P-F2 - S&S - Install PT Ducts	4	07-Dec-28	13-Dec-28	0	-44						S6 - P-F2 - S&S - Install P

Data Date: 01-Nov-24

Longest Path

Float Path = 1



Sum...

Skanska-Flatiron Joint Venture

ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16

5 of 7

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Activity ID	Activity Name	Remaining Duration	Start	Finish	IF	Var HL	2025	2026	2027	2028	2029	2030
CON-38740	S6 - P-F2 - S&S - Form Interior Girder & Walkways	8	14-Dec-28	34-Jan-29	0	-44						S6 - P-F2 - S&S - Form
CON-38750	S6 - P-F2 - S&S - Form Diaphragms & Blockouts	2	05-Jan-29	08-Jan-29	0	-44						S6 - P-F2 - S&S - Form
CON-38760	S6 - P-F2 - S&S - Place Soffit & Stem Concrete	2	09-Jan-29	10-Jan-29	0	-44						S6 - P-F2 - S&S - Place
CON-38780	S6 - P-F2 - S&S - Strip Interior Girder Forms & Walkways	4	11-Jan-29	18-Jan-29	0	-44						S6 - P-F2 - S&S - Strip
CON-38790	S6 - P-F2 - S&S - Strip Diaphragms	2	17-Jan-29	18-Jan-29	0	-44						S6 - P-F2 - S&S - Strip
CON-38810	S6 - P-F2 - DECK - Form Lost Deck	5	19-Jan-29	25-Jan-29	0	-44						S6 - P-F2 - DECK - For
CON-38820	S6 - P-F2 - DECK - Form EOD	3	26-Jan-29	30-Jan-29	0	-44						S6 - P-F2 - DECK - For
CON-38840	S6 - P-F2 - DECK - Place Deck Rebar	5	31-Jan-29	06-Feb-29	0	-44						S6 - P-F2 - DECK - Pl
CON-38860	S6 - P-F2 - DECK - Dry-run Bridge Finishing Machine	1	07-Feb-29	07-Feb-29	0	-44						S6 - P-F2 - DECK - Dr
CON-38870	S6 - P-F2 - DECK - Place Bridge Deck Concrete	1	08-Feb-29	08-Feb-29	0	-44						S6 - P-F2 - DECK - Pl
CON-38890	S6 - P-F2 - DECK - Cure Bridge Deck Concrete	7	09-Feb-29	15-Feb-29	0	-75						S6 - P-F2 - DECK - C
CON-38900	S6 - P-F2 - DECK - Strip Scream Rails & EOD	1	16-Feb-29	18-Feb-29	0	-49						S6 - P-F2 - DECK - St
CON-38920	S6 - P-F2 - PT - Install PT Strands	4	20-Feb-29	23-Feb-29	0	-49						S6 - P-F2 - PT - Inst
CON-38950	S6 - P-F2 - DECK - Strip Exterior Girder & OH Forms	4	20-Feb-29	23-Feb-29	0	-40						S6 - P-F2 - DECK - St
CON-38940	S6 - P-F2 - PT - Stress & Lock-off	3	26-Feb-29	28-Feb-29	0	-49						S6 - P-F2 - PT - Stres
CON-38950	S6 - P-F2 - PT - Grout PT Ducts	2	01-Mar-29	02-Mar-29	0	-49						S6 - P-F2 - PT - Grou
CON-38980	S6 - P-F2 - PT - F/P/S PT Blockouts	3	05-Mar-29	07-Mar-29	0	-45						S6 - P-F2 - PT - F/P
CON-38930	S6 - P-F1/P-F2 - FRP Hinge Lower Seat	10	08-Mar-29	21-Mar-29	0	-45						S6 - P-F1/P-F2 - FR
CON-38970	S6 - P-F1/P-F2 - FRP Hinge Upper Seat	10	22-Mar-29	04-Apr-29	0	-45						S6 - P-F1/P-F2 - FR
CON-38980	S6 - P-F1/P-F2 - Cure Hinges	7	05-Apr-29	11-Apr-29	0	-61						S6 - P-F1/P-F2 - C
CON-46180	S6 - P-SP3 - Remove Falsework	2	12-Apr-29	13-Apr-29	0							S6 - P-SP3 - Remo
CON-46160	S6 - P-SP2 - Remove Falsework NB	1	16-Apr-29	16-Apr-29	0							S6 - P-SP2 - Remo
CON-46170	S6 - P-SP2 - Remove Falsework SB	1	17-Apr-29	17-Apr-29	0							S6 - P-SP2 - Remo
CON-46150	S6 - P-SP1 - Remove Falsework	2	18-Apr-29	18-Apr-29	0							S6 - P-SP1 - Remo
CON-42540	S6 - Br P - Settlement Period P Gore Structure	14	20-Apr-29	03-May-29	0							S6 - Br P - Settlem
CON-42570	S6 - Br P - Form Soffit Closure Pour NB	4	20-Apr-29	25-Apr-29	0							S6 - Br P - Form S
CON-42680	S6 - Br P - Form Soffit Closure Pour SB	4	26-Apr-29	01-May-29	0							S6 - Br P - Form S
CON-42690	S6 - Br P - Place Closure Pour Rebar	4	02-May-29	07-May-29	0							S6 - Br P - Place
CON-42700	S6 - Br P - Place Closure Pour Concrete	1	08-May-29	08-May-29	0							S6 - Br P - Place
CON-42710	S6 - Br P - Cure Closure Pour Concrete	7	09-May-29	15-May-29	0							S6 - Br P - Cure
CON-46240	S6 - Br P - FRP Bridge Rail Bridge P Median Gore	3	16-May-29	18-May-29	0							S6 - Br P - FRP B
CON-46670	S6 - Br P - Prep Deck & Profilegraph	2	21-May-29	22-May-29	0							S6 - Br P - Prep
CON-46710	S6 - Br P - Perform Profile Grinding	2	23-May-29	24-May-29	0							S6 - Br P - Perform
CON-39000	S6 - Seg M - Install Rdwy Signage, Striping & Misc Finishes	5	25-May-29	01-Jun-29	0	-65						S6 - Seg M - Inst
CON-46750	S6 - Br P - Install Joint Assembly - Hinge P-F1/P-F2	3	25-May-29	30-May-29	0							S6 - Br P - Install
CON-49681	S6 - Open Seg P/M Gore St B Config	2	04-Jun-29	05-Jun-29	0							S6 - Open Seg
CON-38450	S6 - Demo Existing World Way South Over Sepulveda/NB Ramp - Enabling Work Seg NE	8	06-Jun-29	15-Jun-29	0	-60						S6 - Demo Exis
CON-39820	S6 - NE Sta 18+00 to Sep Tie In Prep Subgrade	2	18-Jun-29	19-Jun-29	0	-57						S6 - NE Sta 18+

Data Date: 01-Nov-24
Longest Path
Float Path = 1

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Summary

Skanska-Flatiron Joint Venture
ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
6 of 7

SKANSKA | FLATIRON

Activity ID	Activity Name	Remaining Duration	Start	Finish	TF	Var (HL)	2025	2026	2027	2028	2029	2030
CON-39830	S6 - NE Sta 18+00 to Sep Tie In - Install Storm Drainage & Appurtenances	5	20-Jun-29	26-Jun-29	0	-55						
CON-39840	S6 - NE Sta 18+00 to Sep Tie In - Place Agg Base & Finegrade	3	27-Jun-29	29-Jun-29	0	-54						
CON-39860	S6 - NE Sta 18+00 to Sep Tie In - Place Curb & Gutter	3	02-Jul-29	05-Jul-29	0	-54						
CON-39850	S6 - NE Sta 18+00 to Sep Tie In - Place Pavement	1	06-Jul-29	06-Jul-29	0	-54						
CON-39880	S6 - NE - Construct Final Roadway Finishes	5	06-Jul-29	13-Jul-29	0	-49						
MS-10980	Milestone X | Phase 2 | Substantial Completion | Main Work Package #3 | NTP + XXX CD = NLT XXXXXXXX	0		13-Jul-29	0	-71						
CM-10000	Project Adverse Weather Day Allocation (@ 28 days/year of Const)	115	14-Jul-29	05-Nov-29	0	-74						
MS-10990	Project Substantial Completion	0		05-Nov-29	0	-74						
CM-10010	Project Closeout	80	06-Nov-29	24-Jan-30	0	-74						
MS-11000	Project Final Completion	0		24-Jan-30	0	-74						

Data Date: 01-Nov-24
Longest Path
Float Path = 1

Remaining Level of Effort
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

Skanska-Flatiron Joint Venture
 ATMP Rdwy Imp | Baseline Schedule | Schematic Design R0 - Update 16
 7 of 7

SKANSKA | FLATIRON

Acumen Fuse® Diagnostic Executive Briefing

Report Generated On Wednesday, November 6, 2024
 Created by amysheine

SFJV Summary

An Acumen Fuse analysis was conducted on Wednesday, November 6, 2024 on the SFJV workbook. It contains 16 projects: LAWA-ATMP-PREUP04, LAWA-ATMP-PREUP04R1, LAWA-ATMP-PREUP05, LAWA-ATMP-PREUP06, LAWA-ATMP-PREUP07, LAWA-ATMP-PREUP08, LAWA-ATMP-BLSDR0, LAWA-ATMP-BLSDR0UP09, LAWA-ATMP-BLSDR0UP10, LAWA-ATMP-BLSDR0UP11, LAWA-ATMP-BLR0UP11R1, LAWA-ATMP-BLR0UP12, LAWA-ATMP-BLR0UP13, LAWA-ATMP-BLR0UP14, LAWA-ATMP-BLR0UP15 and LAWA-ATMP-BLR0UP16, modeled in Oracle Primavera P6.

The 16 projects in the workbook represent a total cost of \$465.66MM of which \$402.43MM are remaining with \$63.23MM spent as actual cost. The earliest start date is Tuesday, May 30, 2023 with the latest completion date being Monday, February 25, 2030.

Ribbon Browser

Ribbons \ Phases	5/2023	6/2023	7/2023	8/2023	9/2023	10/2023	11/2023
LAWA-ATMP-BLR0UP12							
LAWA-ATMP-BLR0UP13							
LAWA-ATMP-BLR0UP14							
LAWA-ATMP-BLR0UP15							
LAWA-ATMP-BLR0UP16							

Trend Analysis

The following section details how the characteristics of the workbook vary over time. This provides useful insight by showing improving/worsening trends. The analysis was conducted using months as time intervals:

- **Missing Logic:** decreases over time with the best period being 6/2023 (0) and the worst period being 5/2023 (5).
- **Logic Density:** increases over time with the highest period being 5/2023 (6.50) and the lowest period being 11/2023 (3.52).
- **Critical:** remains constant over time.
- **Hard Constraints:** remains constant over time.
- **Negative Float:** remains constant over time.
- **Insufficient Detail:** remains constant over time.
- **Number of Lags:** increases over time with the best period being 5/2023 (0) and the worst period being 7/2023 (25).
- **Number of Leads:** remains constant over time.
- **Merge Hotspot:** decreases over time with the best period being 11/2023 (0) and the worst period being 7/2023 (15).

Projects Summary

LAWA-ATMP-BLR0UP12 Project

The LAWA-ATMP-BLR0UP12 project has a start date of Tuesday, May 30, 2023 and has Monday, January 7, 2030 as the completion date. The project is currently in progress with a status date of Monday, July 1, 2024. It has 4334 normal activities of which 247 (5.7%) are complete, 52 (1.2%) are in progress and 4035 (93.1%) are still planned. It contains 81 milestones, no summaries and 35 LOEs.

The project baseline start date was Thursday, December 1, 2022 with the baseline finish date being Monday, January 7, 2030. The project is currently on schedule.

The total cost of the project is \$37.88MM (compared to baseline cost of \$37.88MM) of which \$0 has been actualized with \$37.88MM remaining. The project is currently on budget.

LAWA-ATMP-BLR0UP13 Project

The LAWA-ATMP-BLR0UP13 project has a start date of Tuesday, May 30, 2023 and has Monday, February 25, 2030 as the completion date. The project is currently in progress with a status date of Thursday, August 1, 2024. It has 4277 normal activities of which 263 (6.1%) are complete, 52 (1.2%) are in progress and 3962 (92.6%) are still planned. It contains 82 milestones, no summaries and 35 LOEs.

The project baseline start date was Thursday, December 1, 2022 with the baseline finish date being Monday, February 25, 2030. The project is currently on schedule.

The total cost of the project is \$37.88MM (compared to baseline cost of \$37.88MM) of which \$0 has been actualized with \$37.88MM remaining. The project is currently on budget.

LAWA-ATMP-BLR0UP14 Project

The LAWA-ATMP-BLR0UP14 project has a start date of Tuesday, May 30, 2023 and has Wednesday, January 30, 2030 as the completion date. The project is currently in progress with a status date of Sunday, September 1, 2024. It has 4467 normal activities of which 287 (6.4%) are complete, 45 (1%) are in progress and 4135 (92.6%) are still planned. It contains 78 milestones, no summaries and 35 LOEs.

The project baseline start date was Thursday, December 1, 2022 with the baseline finish date being Wednesday, January 30, 2030. The project is currently on schedule.

The total cost of the project is \$37.88MM (compared to baseline cost of \$37.88MM) of which \$0 has been actualized with \$37.88MM remaining. The project is currently on budget.

LAWA-ATMP-BLR0UP15 Project

The LAWA-ATMP-BLR0UP15 project has a start date of Tuesday, May 30, 2023 and has Tuesday, February 5, 2030 as the completion date. The project is currently in progress with a status date of Tuesday, October 1, 2024. It has 4603 normal activities of which 312 (6.8%) are complete, 38 (0.8%) are in progress and 4253 (92.4%) are still planned. It contains 87 milestones, no summaries and 35 LOEs.

The project baseline start date was Thursday, December 1, 2022 with the baseline finish date being Tuesday, February 5, 2030. The project is currently on schedule.

The total cost of the project is \$37.88MM (compared to baseline cost of \$37.88MM) of which \$0 has been actualized with \$37.88MM remaining. The project is currently on budget.

LAWA-ATMP-BLR0UP16 Project

The LAWA-ATMP-BLR0UP16 project has a start date of Tuesday, May 30, 2023 and has Tuesday, February 5, 2030 as the completion date. The project is currently in progress with a status date of Friday, November 1, 2024. It has 4682 normal activities of which 329 (7%) are complete, 47 (1%) are in progress and 4306 (92%) are still planned. It contains 87 milestones, no summaries and 35 LOEs.

The project baseline start date was Thursday, December 1, 2022 with the baseline finish date being Tuesday, February 5, 2030. The project is currently on schedule.

The total cost of the project is \$37.88MM (compared to baseline cost of \$37.88MM) of which \$0 has been actualized with \$37.88MM remaining. The project is currently on budget.

Ribbon Analysis

A ribbon analysis shows how the results from the selected metrics vary across the selected groupings of activities. This is a useful means of comparing between such groupings. In addition, the scorecard value for each ribbon provides an overarching summary of each ribbon.

The workbook has been grouped by projects. The analysis contains 5 ribbons: "LAWA-ATMP-BLR0UP12", "LAWA-ATMP-BLR0UP13", "LAWA-ATMP-BLR0UP14", "LAWA-ATMP-BLR0UP15" and "LAWA-ATMP-BLR0UP16".

Ribbon Analyzer

Ribbons \ Phases	Missing Logic	Logic Density™	Critical	Hard Constraints	Negative Float	Insufficient Detail™	Number of Lags	Number of Leads	Merge Hotspot	Scorecard Value
LAWA-ATMP-BLR0UP12	1	3.80	0	0	0	0	12	0	12	85.8%
LAWA-ATMP-BLR0UP13	1	3.77	0	0	0	0	13	0	12	86.1%
LAWA-ATMP-BLR0UP14	1	3.78	0	0	0	0	13	0	12	86.1%
LAWA-ATMP-BLR0UP15	1	3.79	0	0	0	0	13	0	12	86.1%
LAWA-ATMP-BLR0UP16	1	3.79	0	0	0	0	13	0	12	86.1%

- LAWA-ATMP-BLR0UP12 has the worst scorecard value with a score of 85.8%.
- LAWA-ATMP-BLR0UP13, LAWA-ATMP-BLR0UP14, LAWA-ATMP-BLR0UP15 and LAWA-ATMP-BLR0UP16 have the best scorecard value with a score of 86.1%.

LAWA-ATMP-BLR0UP12 Ribbon Analysis

The LAWA-ATMP-BLR0UP12 ribbon contains 124 normal activities, 8 milestones, 0 summaries and 30 LOEs spanning from Tuesday, May 30, 2023 to Friday, October 19, 2029.

93.8% of the activities in this ribbon are complete; 0% are planned and 6.2% are in progress.

The ribbon is 184 days long and has a remaining cost of \$7.79MM.

The ribbon was analyzed using 9 metrics, as detailed below:

- 1 activity (0%) has Missing Logic. Less than 10% exceptions. Some improvements may be required.
- This ribbon has a Logic Density of 3.80. There are between two and four links per activity.
- 0 activities are Critical. No data meets the metric Inclusion or Filter criteria for Secondary Formula
- 0 activities (0%) have Hard Constraints. No exceptions.
- 0 activities have Negative Float. No data meets the metric Inclusion or Filter criteria for Secondary Formula
- 0 activities (0%) have Insufficient Detail.
- This ribbon has a Number of Lags of 13 (10%). Less than 25% of activities have lags. Some improvements may be required.
- 0 activities (0%) have Number of Leads. Less than 5% of activities have negative lags.
- 12 activities (9%) are Merge Hotspot. Less than 10% of activities have more than two predecessors.

LAWA-ATMP-BLR0UP13 Ribbon Analysis

The LAWA-ATMP-BLR0UP13 ribbon contains 124 normal activities, 11 milestones, 0 summaries and 30 LOEs spanning from Tuesday, May 30, 2023 to Friday, December 7, 2029.

93.9% of the activities in this ribbon are complete; 0% are planned and 6.1% are in progress.

The ribbon is 184 days long and has a remaining cost of \$7.79MM.

The ribbon was analyzed using 9 metrics, as detailed below:

- 1 activity (0%) has Missing Logic. Less than 10% exceptions. Some improvements may be required.
- This ribbon has a Logic Density of 3.77. There are between two and four links per activity.
- 0 activities are Critical. No data meets the metric Inclusion or Filter criteria for Secondary Formula
- 0 activities (0%) have Hard Constraints. No exceptions.
- 0 activities have Negative Float. No data meets the metric Inclusion or Filter criteria for Secondary Formula
- 0 activities (0%) have Insufficient Detail.
- This ribbon has a Number of Lags of 13 (10%). Less than 25% of activities have lags. Some improvements may be required.
- 0 activities (0%) have Number of Leads. Less than 5% of activities have negative lags.
- 12 activities (9%) are Merge Hotspot. Less than 10% of activities have more than two predecessors.

LAWA-ATMP-BLR0UP14 Ribbon Analysis

The LAWA-ATMP-BLR0UP14 ribbon contains 124 normal activities, 11 milestones, 0 summaries and 30 LOEs spanning from Tuesday, May 30, 2023 to Friday, November 9, 2029.

93.9% of the activities in this ribbon are complete; 0% are planned and 6.1% are in progress.

The ribbon is 184 days long and has a remaining cost of \$7.79MM.

The ribbon was analyzed using 9 metrics, as detailed below:

- 1 activity (0%) has Missing Logic. Less than 10% exceptions. Some improvements may be required.
- This ribbon has a Logic Density of 3.78. There are between two and four links per activity.
- 0 activities are Critical. No data meets the metric Inclusion or Filter criteria for Secondary Formula
- 0 activities (0%) have Hard Constraints. No exceptions.
- 0 activities have Negative Float. No data meets the metric Inclusion or Filter criteria for Secondary Formula
- 0 activities (0%) have Insufficient Detail.
- This ribbon has a Number of Lags of 13 (10%). Less than 25% of activities have lags. Some improvements may be required.
- 0 activities (0%) have Number of Leads. Less than 5% of activities have negative lags.
- 12 activities (9%) are Merge Hotspot. Less than 10% of activities have more than two predecessors.

LAWA-ATMP-BLR0UP15 Ribbon Analysis

The LAWA-ATMP-BLR0UP15 ribbon contains 124 normal activities, 11 milestones, 0 summaries and 30 LOEs spanning from Tuesday, May 30, 2023 to Friday, November 16, 2029.

93.9% of the activities in this ribbon are complete; 0% are planned and 6.1% are in progress.

The ribbon is 184 days long and has a remaining cost of \$7.79MM.

The ribbon was analyzed using 9 metrics, as detailed below:

- 1 activity (0%) has Missing Logic. Less than 10% exceptions. Some improvements may be required.
- This ribbon has a Logic Density of 3.79. There are between two and four links per activity.
- 0 activities are Critical. No data meets the metric Inclusion or Filter criteria for Secondary Formula
- 0 activities (0%) have Hard Constraints. No exceptions.
- 0 activities have Negative Float. No data meets the metric Inclusion or Filter criteria for Secondary Formula
- 0 activities (0%) have Insufficient Detail.
- This ribbon has a Number of Lags of 13 (10%). Less than 25% of activities have lags. Some improvements may be required.
- 0 activities (0%) have Number of Leads. Less than 5% of activities have negative lags.
- 12 activities (9%) are Merge Hotspot. Less than 10% of activities have more than two predecessors.

LAWA-ATMP-BLR0UP16 Ribbon Analysis

The LAWA-ATMP-BLR0UP16 ribbon contains 124 normal activities, 11 milestones, 0 summaries and 30 LOEs spanning from Tuesday, May 30, 2023 to Friday, November 16, 2029.

93.9% of the activities in this ribbon are complete; 0% are planned and 6.1% are in progress.

The ribbon is 184 days long and has a remaining cost of \$7.79MM.

The ribbon was analyzed using 9 metrics, as detailed below:

- 1 activity (0%) has Missing Logic. Less than 10% exceptions. Some improvements may be required.
- This ribbon has a Logic Density of 3.79. There are between two and four links per activity.
- 0 activities are Critical. No data meets the metric Inclusion or Filter criteria for Secondary Formula
- 0 activities (0%) have Hard Constraints. No exceptions.
- 0 activities have Negative Float. No data meets the metric Inclusion or Filter criteria for Secondary Formula
- 0 activities (0%) have Insufficient Detail.
- This ribbon has a Number of Lags of 13 (10%). Less than 25% of activities have lags. Some improvements may be required.
- 0 activities (0%) have Number of Leads. Less than 5% of activities have negative lags.
- 12 activities (9%) are Merge Hotspot. Less than 10% of activities have more than two predecessors.

Appendix 7- Site Investigations Plan



Preliminary Site Investigations Plan (PR-01)

Date: October 15, 2024

Revision: B

HNTB

SKANSKA | FLATIRON

Prepared by: Ryan Henderson, PE

Reviewed by: Marc Whitmore, PE

Approved by: Richard Hart, PE

Revision History:

Revision	Date	Description
A	November 2, 2023	Original Site Investigations Plan
B	October 15, 2024	Updated to include site investigations for Phase 2 Final Design

Contents

Preliminary Site Investigation Plan.....	4
1 Overview and Goals	4
2. BOD Phase Preliminary Site Investigation.....	4
2.1 Engineering Field Investigation	4
2.2 Utility Pothole Investigation.....	4
2.3. Geotechnical Investigation	5
2.4 Field Surveying	5
2.5 Traffic Counts.....	5
2.6 Tree Survey.....	5
3. Phase 2 Final Design.....	6
3.1 Engineering Field Investigation	6
3.2 Utility Pothole Investigation	6
3.3. Geotechnical Investigation	6
3.4 Field Surveying	6
3.5 Traffic Counts.....	6
3.6 Tree Survey.....	7

Preliminary Site Investigation Plan

1 Overview and Goals

During the task order negotiations for Task Order PH1-TO01 a scope was developed that was agreeable to both LAWA and SFJV to perform some preliminary site investigations for the BOD phase that would provide initial levels of information to inform the alternatives analysis and selection of preferred alternative. This plan addresses the investigation for the BOD phase. Additional investigations will be required for future phases, and this plan will be updated accordingly in future phases. During the BOD phase there are six primary areas of investigation, engineering field investigations, utility pothole investigation, geotechnical investigation, field surveying, traffic counts, and tree survey.

2. BOD Phase Preliminary Site Investigation

2.1 Engineering Field Investigation

SFJV and HNTB will conduct periodic site investigations to confirm certain locations and impacts of various items as may be identified during the Basis of Design. This activity is typical for most any engineering design project and expected part of the design process.

As the majority of this project exists within the public right of way, specific requests for access will not be necessary during the BOD Phase of the project. As the design develops and right of way takes are identified as may be necessary for permanent and or temporary conditions, SFJV will advise LAWA accordingly as to the needs for such private property site visits.

General engineering site visits as are typically conducted will always involve two individuals when going into the field. Appropriate PPE as required by the SFJV's safety plan will be used for such visits.

2.2 Utility Pothole Investigation

During the Basis of Design, it will be necessary to identify potential utility conflicts where underground work is proposed. This work generally entails foundation construction, storm drain construction, and the installation of other underground utility facilities as may need to be installed and or relocated as part of the project.

SFJV and HNTB will identify these potential conflicts via the design process attempting to avoid and minimize these conflicts to the greatest extent possible. Where it is critical to identify the locations of those facilities in potential conflict, potholing to verify the facility's coordinates and elevation will be undertaken. This work will be performed under the conditions of *PR – 07 UTILITIES*. This information will be collected via the project team surveyor and tie into the LAX Survey Control Network.

The specific work will also entail the required traffic control to be permitted through the appropriate agency prior to the work being performed.

The pothole information as collected will be references onto and be part of the project plans eventually to be Issued For Construction (IFC).

2.3. Geotechnical Investigation

SFJV and HNTB are required to provide geotechnical designs for the foundations of the various structures on the project, including pavement, slope stability and trench requirements where applicable. To develop this design, it will be necessary to perform a geotechnical site investigation of the proposed foundation locations for all the structures on the project.

Upon LAWA confirmation of a Preferred Alternative and the corresponding project geometry, SFJV, HNTB and its geotechnical engineer will prepare a proposed field investigation for the borings required. This plan will identify the foundation locations and the proposed boring locations.

The specific work will also entail the required traffic control to be permitted through the appropriate agency prior to the work being performed.

2.4 Field Surveying

Survey work will be performed over the entire project site and will be an ongoing task depending on the needs of the design at any given time. The surveyor will be setting project control targets and monument recovery activity in the first two to three months of the BOD Phase. This will be in support of the aerial and Lidar mapping activities that will be part of the BOD Phase.

During the BOPD Phase, it is anticipated that some additional field work from the surveyor will be required. As the project lies within the public right of way, their activities will not require any specific access to private property.

2.5 Traffic Counts

SFJV and HNTB have identified a budget for this activity should it prove necessary to validate any of the traffic volumes on the project site. This work will be provided by a local provider and will be performed in accordance with the appropriate local requirements.

2.6 Tree Survey

SFJV and HNTB have identified the need to inventory all trees that exist within the project footprint. This will be important when the project is required to identify the tree removal count and provide

appropriate mitigation. This work will be performed by visual inspection. It is recommended this work be performed after the completion of the site survey and will be scheduled accordingly.

No traffic control is anticipated to perform this activity.

3. Phase 2 Final Design

3.1 Engineering Field Investigation

SFJV and HNTB will continue to conduct periodic site investigations throughout Final Design. SFJV will advise LAWA for access outside the public right of way on private property.

General engineering site visits as are typically conducted will always involve two individuals when going into the field. Appropriate PPE as required by the SFJV's safety plan will be used for such visits.

3.2 Utility Pothole Investigation

It is anticipated that Phase 1 potholing identifies the potential utility conflicts. As the design progresses towards final design, it may be necessary to perform additional potholes. Increased footing sizes for example or shifts in alignment may bring utilities that were not a concern to utilities that need to be located through potholing. This work will be performed and documented as was done in Phase 1.

3.3. Geotechnical Investigation

It is not anticipated that additional geotechnical investigation will be required for Final Design.

3.4 Field Surveying

SFJV and HNTB have identified a budget for this activity should it prove necessary to acquire additional design tie in survey. This work will be performed as was done in Phase 1.

3.5 Traffic Counts

It is not anticipated that additional traffic counts will be required for Final Design.

3.6 Tree Survey

SFJV and HNTB will perform the tree survey as part of an Arborist Report. This work will be performed by a local provider in accordance with the appropriate local requirements.

No traffic control is anticipated to perform this activity.

Appendix 8- Design Management Plan (PR-11)



Airfield and Terminal Modernization Project Roadway Improvement

Project # DA-5609

Design Management Plan

Date: October 15, 2024

Revision: C

Prepared by: Jim Kupersmith

Reviewed by: Marc Whitmore, PE / Kelly Lumen, PE

Approved by: Richard Hart, PE

Revision History:

Revision	Date	Description
A	June 27, 2023	Original DMP
B	March 25, 2024	Updated Appendix A <i>Design Organization Chart</i>
C	October 15, 2024	Updated to reflect Phase 2 Final Design and Appendix A <i>Design Organization Chart</i>

TABLE OF CONTENTS

SECTION	PAGE
---------	------

Contents

1.	GENERAL	5
2.	DESIGN DELIVERABLES	5
3.	PRECONSTRUCITON DELIVERABLES IN SUPPORT OF DESIGN	6
4.	DESIGN SERVICES	7
5.	DESIGN QUALITY	7
6.	DESIGN REVIEWS.....	8
7.	DRAWINGS, DATA, AND CONFIGURATION MANAGEMENT	9
8.	STANDARDS AND CODES.....	9
9.	CHECKLISTS	9

APPENDIX A – DESIGN ORGANIZATION CHART

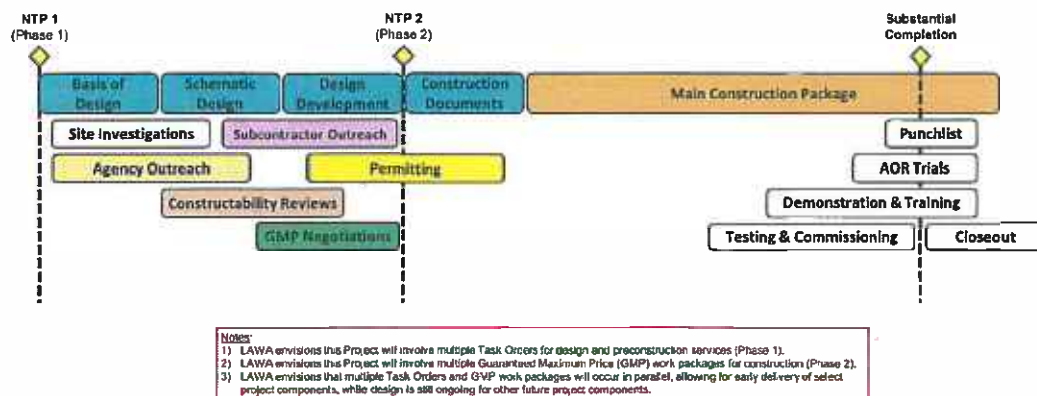
1. GENERAL

This Design Management Plan is prepared in accordance with *Project Requirement PR-11 Design Management*. The outline below represents the contents of the section noted as well as specific items referenced in *Project Requirement PR-02 Project Management* and *Coordination* and other sections as noted here.

2. DESIGN DELIVERABLES

The Skanska/Flatiron Joint Venture (SFJV) team and the HNTB design team HNTB will manage the prescribed deliverables in accordance with the applicable Project Requirements. Design deliverables for the project shall consist of the required deliverables described in each Task Order. Each deliverable shall contain the applicable documentation as required in *Project Requirement PR-09 Submittal Procedures*.

The elements of the project are noted below in the graphic included in the *Project Requirement PR-01 Scope of Work*:



The specific design elements included in the *Project Requirement PR-01 Scope of Work* graphic lead by HNTB include:

- Basis of Design (BOD)
- Schematic Design
- Design Development
- Construction Documents

The balance of the items shown in the graphic are items HNTB is performing in conjunction the SFJV.

3. PRECONSTRUCTION DELIVERABLES IN SUPPORT OF DESIGN

HNTB will work with the SFJV team to identify the preconstruction elements that represent the deliverables required for the work. In general those items are:

- Preliminary Project Management Plan
- Work Plan and Schedule
- Design Management Plan
- Project Controls Plan
- Quality Control Plan
- Communication Plan
- Stakeholder Engagement Plan
- Safety Plan

Of the deliverables noted above, HNTB is specifically responsible for the Design Management Plan. HNTB has prepared and submitted to SFJV the Design Quality Management Plan that resides in SFJV's Quality Control Plan for the project. HNTB has coordinated the balance of the deliverables noted above for input from SFJV for pertinent information. SFJV will be making the balance of the deliverables noted above as part of the preconstruction services under the work described.

4. DESIGN SERVICES

For the design services, HNTB is responsible for all professional engineering design services and management as defined in *Project Requirement PR-01 Scope of Work*. This includes all disciplines related to the nature of the work including roadway, structural, traffic, drainage, utility, surveying, geotechnical, landscape architecture, architecture, and all other support services required to deliver the elements that make up this multi-discipline project.

As the project develops certain specific requirements may be identified via the stakeholder interviews as defined in the BOD Phase. These requirements will be evaluated with the SFJV and LAWA to determine the applicability of potential "new" requirement. As these elements are defined, HNTB will incorporate the new design requirements into the project as appropriate.

With the development of the design, HNTB will manage all project plans as they are delivered, keeping a record of the submittal. Drawings will be submitted via electronic submittal using PDF formatted plan sheets following the software requirement specified in the Project Requirements.

The specifications for the project shall be prepared to represent the appropriate requirements for implementing the construction activity and/or materials required for the project.

HNTB will maintain all design files including calculations as may be required for any of the design analysis. Calculations prepared by hand will be documented on HNTB letterhead grid paper. Software that may be used for the design analysis will be software that has been previously adopted by HNTB as acceptable to perform the various engineering calculations as may be performed. This will generally be as it relates to roadway, structural, hydrologic and hydraulic and traffic design.

During construction, if changes to the Issued for Construction Plan set becomes necessary the HNTB design team will utilize the Notice of Design Change processes as is appropriate and required by the contract documents.

5. DESIGN QUALITY

The Design Quality Management Plan (DQMP) is documented and part of the overall project Quality Assurance/Quality Control (QA/QC) program in accordance with *Project Requirement PR-13/14 Quality Assurance/Quality Control*. As part of the Program Wide QA/QC plan, HNTB has prepared the required DQMP that is incorporated into that document.

As part of the BOD, HNTB, SFJV and LAWA will identify the appropriate project requirements and performance indicators. The team will collectively identify these parameters and then move the design forward accordingly.

The Design Quality process will include an identification of project deliverables and scope with each Task Order as issued by LAWA. HNTB and the SFJV will develop scopes and deliverable requirements for the upcoming design elements (SD, DD, CD) by interpreting the Project Requirements and the needs of the project at that point in time during the design.

HNTB will utilize its own design process for adhering to its own standardized design procedure. This quality process generally involves application of the process to all disciplines as the overall compilation of the project plans. The process identifies the need for a Discipline Quality Check (DQC), Interdisciplinary Review (IDR), Constructability Review (CR), and when there are highly technical and complex design elements, a Senior Technical Review (STR) may be identified. For this project, it is anticipated for the two large viaduct bridges (Segment A and Segment D) to have an STR quality review.

Each Discipline Task Lead will be the responsible party for the overall DQC of the discipline deliverables. Completion of quality forms including the redline plans and documents will be retained as part of the overall QC process. This will be documented in accordance with the DQMP. This process for checking has successfully delivered design documents with the appropriate level of accuracy and completeness.

HNTB will proactively identify the sequence of reviews to occur prior to the design milestone submittals. These reviews will start with the DQC review, followed by the IDR, and CR with the SFJV team participation will be conducted. The latter review will occur with key staff from SFJV team who are familiar with the project. This will focus their input to the level of completeness of the plans at that point in time (30% plans will necessitate a differing level of construction detail than offered at 100%). The overall checking and interface management will lead to a reconciliation meeting between the SFJV and the design team.

As part of the quality design process, comments and disposition verification are important. While this statement may seem most applicable to the reviews provided by LAWA, HNTB applies the same approach to comment resolution and disposition for its own internal DQC, IDR, STR and CR reviews. HNTB will address all the comments and meet with LAWA and its team to resolve any outstanding comments.

6. DESIGN REVIEWS

The design reviews will involve a number of agencies. The primary reviewer for the project will be LAWA. Included in the review of the project will be other authorities having jurisdiction (AHJ) as identified during the BOD phase. The submittals to the AHJ's will be coordinated in accordance with *Project Requirement PR-09 Submittal Procedure* and *PR-12 Third Party Coordination*.

HNTB will coordinate all submittals and comment resolution process with the applicable AHJ.

7. DRAWINGS, DATA, AND CONFIGURATION MANAGEMENT

HNTB shall maintain all design drawings, design data and calculations utilizing the applicable software and design standards identified in the *Project Requirement PR-01 Scope of Work* and approved during the BOD phase.

As part of the project HNTB's organization, the responsibility of the Discipline Task Leads entails:

- Overseeing the staff preparing plans, calculations under their direct supervision
- Reviewing all documents issued through their respective group, and initiate an independent DQC
- Coordinating all IDR with the other Task Leads,
- Implementing the appropriate control over the documents including the plans, specifications and comments resolution documents.
- Assuring plan information is incorporated into the baseline to allow for the development of the applicable modeling in accordance with the Project Requirement PR-21 Building Information Model (BIM) and Virtual Design and Construction (VDC) Coordination.

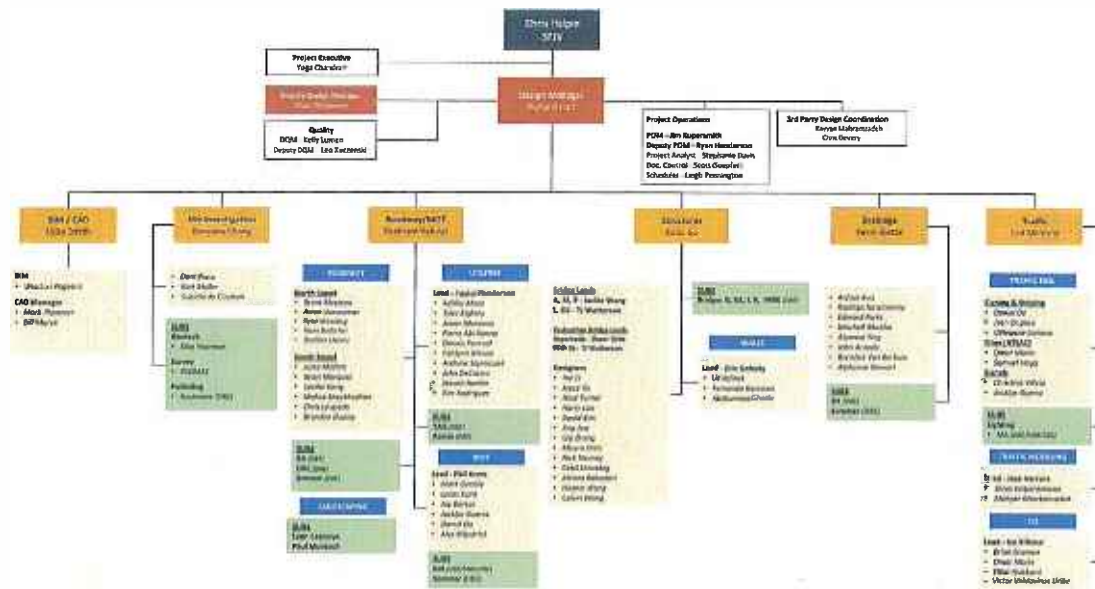
8. STANDARDS AND CODES

As part of the Proof of Concept report submitted during the BOD, HNTB will define the applicable standards and design criteria to be used for the project. These items will require validation with the AHJs to assure the correct standards are being applied to the project. This will be an ongoing process within the BOD and throughout the design to assure the agreed upon standards are being used.

9. CHECKLISTS

The HNTB design team will use the appropriate checklists as offered by the AHJs to prepare its plans for the project. This will be addressed as part of the BOD's Proof of Concept report noted above. Agreement on the checklists will need to be documented at the time the agencies agree to the form of the check list to be used.

APPENDIX A - DESIGN ORGANIZATION CHART



Appendix 9- Design Submittal Packaging Plan



Airfield and Terminal Modernization Program Roadway Improvements

Project # DA-5609

Design Submittal Packaging Plan

Date: October 15, 2024

Revision: B



Prepared by: Ryan Henderson, PE

Reviewed by: Marc Whitmore, PE

Approved by: Richard Hart, PE

Revision History:

Revision	Date	Description
A	March 25, 2024	Original Design Submittal Packaging Plan
B	October 15, 2024	Updated Design Unit packing plan

TABLE OF CONTENTS

SECTION	PAGE
---------	------

Contents

1.	GENERAL.....	4
2.	DESIGN DRAWINGS.....	4
3.	PROJECT WIDE UTILITIES.....	5

APPENDIX A – SEGMENT PACKAGING

1. GENERAL

This Design Submittal Packaging Plan is a subset of the Project Management Plan (PMP). It has been prepared to divide the design work based on geographic area and primary Authority Having Jurisdiction (AHJ).

2. DESIGN DRAWINGS

Design drawings have been broken up into design units, project wide Maintenance of Traffic (MOT), ITS and Site Improvement packages, and an Early Works packages as shown in Table 1 and graphically shown in Appendix A. Each design discipline will be included in the package, however utilities will be as described in Section 3. The Early Works package will be limited to demolition work and temporary pavement. The Skanska Flatiron Joint Venture (SFJV) will transmit a design drawing package to LAWA for distribution. Separate packages for secondary AHJs or departments within an organization will not be created.

Table 1: Design Drawing Packaging Plan

Design Units	Roadway Segments	# of Bridges	# of Walls
1	E, G, H, Mixed Use Trail	1	5
2A	A, C, D, F	2	11
2B	D	1	2
3	J Century Blvd. Vicksburg Ave.	N/A	N/A
4A	I, K, L, L1	2	4
4B	M, N, NE, P, World Way	3	2
5	Sepulveda Blvd.	N/A	N/A
PW 1A	MOT (Stage 2)	N/A	N/A
PW 1B	MOT (Stages 3-6)	N/A	N/A
PW 2	ITS/Fiber	N/A	N/A
PW 3	Site Improvements	N/A	N/A
PB 1	Sepulveda Blvd. & 96 th St	2 Ped	N/A
AC 1	Early Works	N/A	1

3. PROJECT WIDE UTILITIES

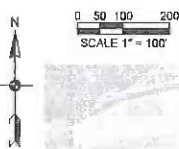
Composite utility plans depicting existing conditions and relocations will be included with each of the design drawing packages described in Section 2. Relocation plans will be developed for each utility owner. The relocation plans will be divided into communications (UR 1) and non communications (UR 2). An Early Works package (AC2) is proposed to advance those utilities that are identified to impact initial construction activities. These could be relocated, demolished or protected in place. These will be developed to a level as outlined in the current Task Order.

It is assumed that the utility owner will design the relocation plans noted in Table 2.

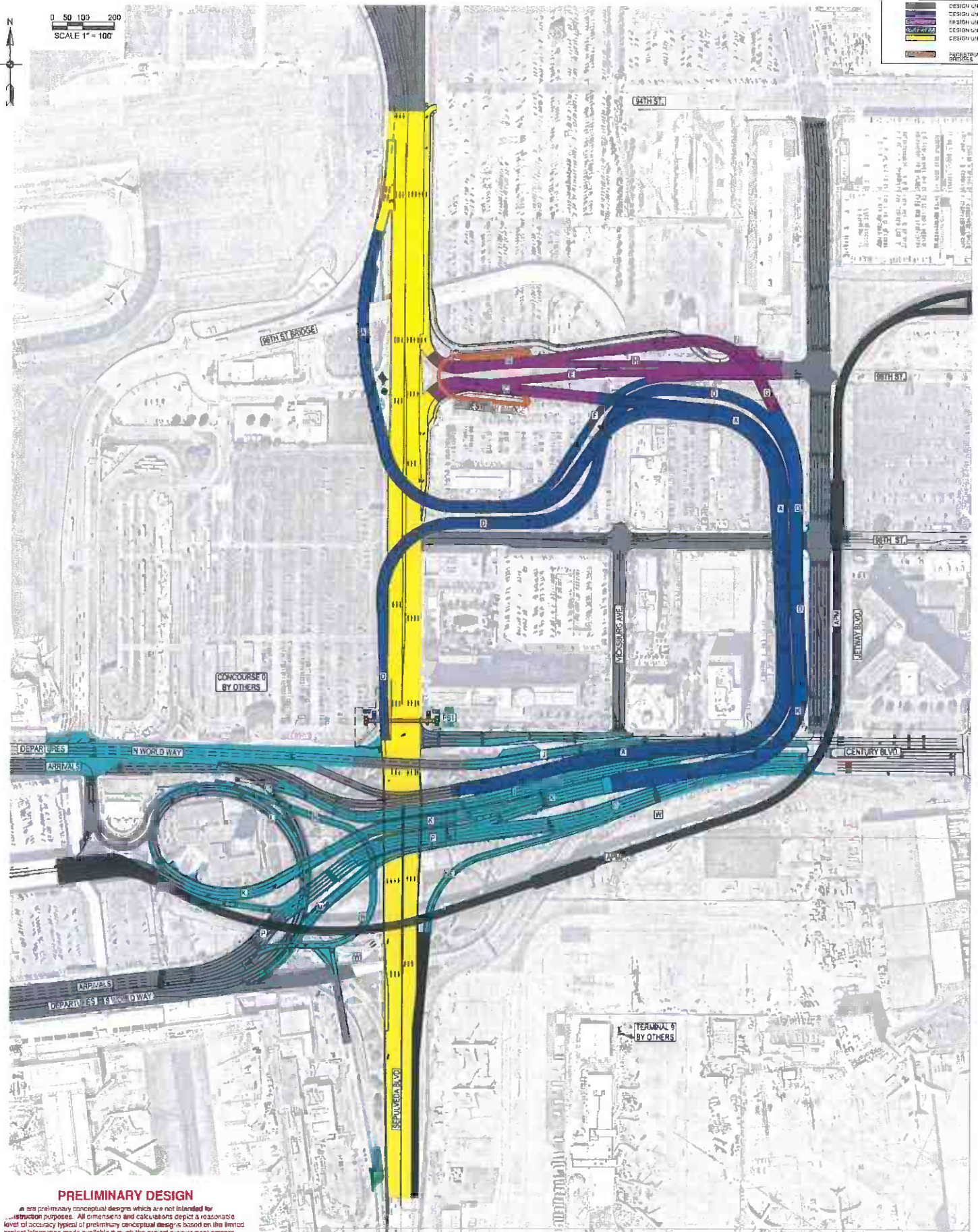
Table 2: Owner Designed

Type	Owner
Water	LADWP
Electrical	LADWP
Gas	SCG
Oil	Chevron

APPENDIX A – SEGMENT PACKAGING



LEGEND	
	DESIGN UNIT 1
	DESIGN UNIT 2
	DESIGN UNIT 3
	DESIGN UNIT 4
	DESIGN UNIT 5
	EXISTING BRIDGES



PRELIMINARY DESIGN

are preliminary conceptual designs which are not intended for construction purposes. All dimensions and calculations depict a reasonable level of accuracy typical of preliminary conceptual design based on the limited project information made available through the project procurement process.

Appendix 10- Cost Management Plan



Cost Management Plan (PR-01)

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Contents

COST MANAGEMENT PLAN.....	3
OBJECTIVES	3
RESPONSIBILITIES	3
WORK BREAKDOWN STRUCTURE AND COST ESTIMATING.....	3
Design Milestone Estimating & Work Breakdown Structure	4
Design Milestone Estimating.....	4
Work Breakdown Structure (WBS)	5
Construction Indirect Groups (IG)	5
Cost Drivers	7
Variance Tracking	7
Design Decisions	7
Risk & Contingency	7
Risk	7
Contingency	7
BUDGET DEVELOPMENT	8
Design Budget Development	8
Design Task Order Development and Tracking	8
Target Budget Development	9
COMPONENT GMP APPROACH & DEVELOPMENT	9
Self-Perform Estimating and Negotiations	10
Subcontract Packaging	10
Subcontract Bidding & Buyout	11
Subcontract Bidding	12
Subcontract Buyout.....	12
MONITORING PERFORMANCE	12

COST MANAGEMENT PLAN

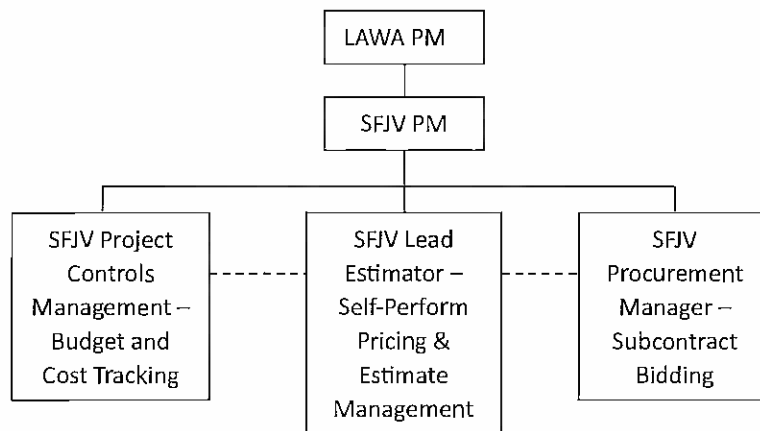
OBJECTIVES

This Cost Management Plan provides the framework to create and monitor the project's budget. Four (4) simple keys to a successful plan for cost management:

- Break the work into tasks.
- Estimate the costs including potential risks and opportunities.
- Create the budget.
- Monitor performance.

RESPONSIBILITIES

Managing project costs is a joint effort by both LAWA and SFJV. To manage costs during the procurement phase, SFJV will implement experienced staff with strong communication skills to lead self-perform pricing and negotiations, subcontract bidding processes, and risk identification. During the construction phase, project controls staff will transition to perform budget and cost tracking functions as well as tracking status of contingency levels.

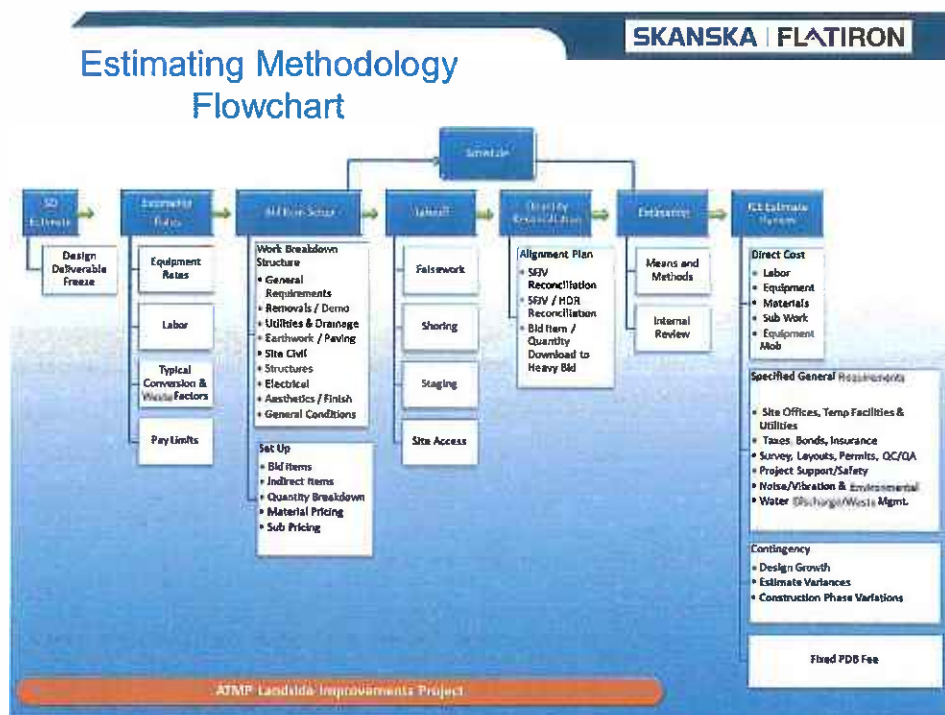


WORK BREAKDOWN STRUCTURE AND COST ESTIMATING

SFJV's lead estimator is responsible to prepare Estimating Methodology Report for each design milestone cost estimate. This initial report will be distributed at a draft level for comment. Prior to the start of the first bottoms-up cost estimate, the final version will be distributed to address comments and update the draft WBS to align with the design submittal scope. The report serves as a guide to facilitate understanding of the estimating process between the different entities involved and to facilitate the comparison of cost estimates between the different entities involved in the Progressive Design-Build process. The general objective of the estimating methodology report is to provide a transparent, bottoms-up estimate format for the design submissions.

The report will contain, at a minimum:

- References to the design documents, specifications, and reports that serve as the basis of the cost estimate.
- Work Breakdown Structure (WBS)
- Bases of escalation costs
- Budgetary pricing for subcontractor and material costs until the subcontractor bidding process has been completed.
- Labor rates and burdens/multipliers
- Equipment rates
- Assumptions commensurate with the design maturity
- Basis for work schedule, i.e. project schedule and shift frequency and duration



Refer to the Cost Methodology Report distributed under separate cover for the Schematic Design cost estimate. A summary of the process is shown below and will be implemented for subsequent cost estimates.

Design Milestone Estimating & Work Breakdown Structure

Design Milestone Estimating

Cost estimates will be performed after the submittal of the following design milestone submittals:

- Schematic Design (30%)
- Design Development (60%)
- Component GMPs
- Final/permitted design submittals as negotiated with LAWA.

Work Breakdown Structure (WBS)

In order to facilitate cost estimate reviews and comparisons, a WBS will be submitted with the Cost Methodology Report for each design milestone cost estimate. The WBS will be organized by major work discipline. The following categories will be used to structure the estimate. The WBS will provide more detail to facilitate quantity reconciliation and estimate reviews and comparisons. The general WBS categories are shown below:

CATEGORY ID	CATEGORY DESCRIPTION
1000	General Requirements: Includes project requirements as listed in the contract.
2000	Removals / Demolition: Includes clear and grub, removal of bridges, retaining walls, striping and sign structures, minor concrete demolition, and removal of miscellaneous site furnishings.
3000	Underground / Utilities: Includes abandonment, removal and relocation of all utilities, including storm drain improvements.
4000	Earthwork / Paving: Includes roadway removals, embankment, and new structural section.
5000	Site Civil: Scope includes minor concrete improvements, CAS and wayfinding signage, new sign structures, striping, fencing and railing.
6000	Structures: Scope is limited to bridge and retaining wall construction.
7000	Electrical, Lighting, ITS / Comms
8000	Aesthetics and Finishes: Includes major project architectural features including 9/11 memorial, pylons, and landscape / irrigation.
9000	General Conditions: See Section V Construction Indirect Costs

Construction Indirect Groups (IG)

The indirect costs shall be presented as shown below.

A. IG-1 Job Supervision / Staff Related (This includes all Job Supervision, Engineering, Office Personnel, and Purchasing. Estimate duration of all supervision in man-months. Supervision shall be broken down as follows):

- a. Management Salaries
 - i. Management
- b. Administration & Business Salaries

- i. Office Manager
 - ii. Timekeeper
- iii. Procurement/Payables
 - iv. Project Controls
 - v. IT
 - vi. Clerical
- c. Project Controls Staff
- d. Supervision Staff
- e. Quality Staff
- f. Design Management Staff

B. IG-2 Craft Related

- a. Drug Testing
- b. Craft Cell Phones / iPads.
- c. Show Up Time
- d. PPE
- e. Training
- f. On-Boarding
- g. Portable Toilets
- h. Water / ICE
- i. Incidental OT
- j. Craft Time Spent in Transit

C. IG-3 Office & Yard

- a. Site Cameras
- b. Security Guard
- c. Temp Power Drops
- d. Temp Fencing
- e. Yard Support Crew
- f. Restore Yards
- g. Road & Yard Maintenance

D. IG-4 Other Indirect Costs

- a. Survey
 - i. Survey Support
 - ii. GPS Equipment
- b. Quality
- c. Design
- d. Escalations
 - i. Materials
 - ii. Subs
 - iii. Fuel
- e. Other
 - i. Graffiti Removal / Trash Pick-Up
 - ii. Risk Register
 - iii. Legal Expenses

E. IG -5 Taxes, Bonds & Insurance

- a. Gross Receipts

F. IG -6 Equipment

- a. Master Mechanic
- b. Mobilization/Demobilization of Equipment
- c. Mobilization/Demobilization of Structures Equipment

- d. Onsite Moves
- e. Light Plants
- f. Equipment Idle Time

Cost Drivers

Upon the completion of each cost estimate, the lead estimator will summarize the major scope components by percentage of direct cost so that the team is aware of what the major cost drivers are. This awareness will allow the team to strive to reduce quantities and scope of those major components, control scope growth, and to continue to optimize the design and project value.

Variance Tracking

Major variances of cost items from prior estimates will be defined in a variance tracking sheet supplied with each cost estimate documentation, with descriptions of the cause for the variances.

Design Decisions

As the design progresses and major innovations or scope changes are developed, the concepts will be priced to inform the team of the cost implications and value assessment of each change. The decisions will be captured by the Design Manager and Design-Build Manager in a Design Decision Log and reviewed monthly at the Owner's Meeting.

Risk & Contingency

At each design milestone cost estimate, contingencies will be developed and included that are commensurate with the level of design. SFJV expects that as the design matures, the contingency for design scope growth will decrease. Subcontract Buyout contingency levels will vary depending on when the buyout process occurs, i.e. before cGMP or after.

Risk

For self-perform work, SFJV will include a risk component commensurate with the self-perform scope, similar to how bidders will incorporate when they provide bids for the subcontracted scopes. This risk component for self-perform work will be reviewed with LAWA in a transparent and open-book format. Once the risk component is incorporated into a respective cGMP, SFJV will solely manage the risk component.

Contingency

Design-Build, shared, and other forms of contingency will be discussed and agreed to with LAWA, including any savings or losses. Potential contingency items include:

- Those items that were included in the proposal drawings and specifications that SFJV missed in proposing the (C)GMP.
- Those items that were included in the proposal drawings and specifications that SFJV underpriced in proposing the (C)GMP.
- Schedule acceleration or schedule mitigation as required to meet contract milestones, or as deemed necessary by the Design/Builder to improve the project schedule when required.
- Increased general conditions or general requirements costs. This may include items such as additional temporary fence moves, increased costs for temporary protection of installed work, increased costs for weather protection, increased staffing for general conditions, etc.

- To cover higher costs for replacing a subcontractor which are not covered by subcontractor default insurance or surety.
- Costs related to subcontractor claims or charges that result from mistakes or omissions in the subcontract buyout.
- Coordination errors and omissions related to SFJV's shop drawing coordination obligations.
- Interference between any subcontractor and SFJV
- Interference between any subcontractor and any other subcontractor
- SFJV failure to coordinate the Work it self-performs with work of other subcontractors.
- Other items not outlined above, if approved in advance in writing by LAWA

LAWA's PM/CM will lead the project's risk analysis process. Project risks will be identified and tracked throughout the design phase of the project by the team, with mitigation strategies assigned to team members. During cGMP negotiations, the risk register will be used to allocate risks accordingly, to the entity that is best suited to mitigate the risk. SFJV's project management team will participate in the risk process to ensure that new threats and opportunities are updated as the design and stakeholder participation evolves.

BUDGET DEVELOPMENT

Design Budget Development

During the contract development phase, SFJV provided LAWA with a design and Phase 1 preconstruction ROM budget that was incorporated into the contract as shown below.

Scope Component	Budget Value
Basis of Design + Schematic Design (30%) + Preconstruction	\$37.9M
Design Development + (60%) Preconstruction	\$42.9M
Construction Documents	\$50.5M
Site Investigations	\$8M
Integrated Project Office	\$3.1M
Insurance/Bonds	\$ 7.6M
Total	\$150M

Design Task Order Development and Tracking

SFJV, in concurrence with LAWA, intends to utilize the task order process for the entirety of the project's design scope. By using the task order process and not including 90% and 100% design scopes in cGMPs, the design can keep progressing and not be delayed by negotiation timeframes for Phase 2 cGMP processes.

For the base design scope thru Design Development (60%), SFJV intends to negotiate individual task orders for each of the below:

- Basis of Design Phase
- Schematic Design (30%) Phase

- Design Development (60%) Phase

SFJV and LAWA will continue discussions for the optimum task order approach after Design Development (60%) phase that integrates the agreed approach to procurement and cGMPs. This could consist of a single task order for each of the following phases/and packages:

- 90%/100%/Final Construction Documents – Early Work Package 1
- 90%/100%/Final Construction Documents – Main Work Package 2
- 90%/100%/Final Construction Documents – Main Work Package 3

Additional task orders are anticipated for enabling scopes for the ATMP program that are not yet defined. The table below provides the current approximate task order budget tracking.

Scope Component	Budget Value	Approximate Task Order Utilization	Budget Remaining
Basis of Design + Schematic Design (30%) + Preconstruction	\$37.9M	\$35.7M	\$2.2M
Design Development + (60%) + Preconstruction (In negotiation)	\$42.9M	\$42.5M	\$.4M
Construction Documents	\$50.5M		\$50.5M
Site Investigations	\$8M	\$7.6M	\$.4M
Integrated Project Office	\$3.1M	\$.3M	\$2.8M
Insurance/Bonds	\$7.6M	\$2.4M	\$5.2M
Total	\$150M	\$88.5M	\$61.5M

Target Budget Development

It is anticipated that the Design Development (60%) cost estimate will serve as the basis for LAWA to determine the Target Budget. The Design Development (60%) phase will be the design milestone that supplements approved geometry at 30% design with the necessary structure detailing at 60% design. At the 60% design level, the major scope components should be identified and incorporated, as well as results from site investigations comments from Authorities Having Jurisdiction (AHJs).

SFJV and LAWA will continue to utilize the project's risk register to assess the threats and opportunities to the Target Budget.

COMPONENT GMP APPROACH & DEVELOPMENT

SFJV's approach to the project is to self-perform work that is essential to project success or on the critical path and subcontract work that doesn't fall within our core competency, in accordance with the contract requirements. This allows SFJV to meet the schedule demands of the project and ensure key project elements are constructed on time and according to expectations and standards.

Our strategy in determining self-performed scopes of work is based on:

- Capitalizing on our core self-performed capabilities and experience
- Self-perform high-risk and/or schedule-sensitive scopes within our core capabilities.
- Self-perform work where we may have a significant cost/budget advantage over the

subcontracting community.

- Reviewing select self-performed scope against the potential for carving out work for DBE firms to assist in meeting the project goals.

Self-Perform Estimating and Negotiations

The detailed WBS will provide sufficient level of work and cost detail for a transparent and collaborative analysis of our self-performed costs with LAWA for negotiation purposes. Our recent and active local projects allow our team to provide LAWA with relevant information to validate our cost approach and assumptions.

SFJV will generate bottoms-up estimates for all scopes we are qualified to perform, in accordance with the Estimating Methodology Report. In parallel, we will also solicit subcontractor pricing for work we do not intend to self-perform at each cGMP estimate. Reference the Cost Estimating Methodology section for the integration of the Independent Cost Estimating team into the validation process for self-perform cost estimates and negotiations.

Subcontract Packaging

SFJV will prepare a Subcontracting Plan with each cost estimate as the framework for our project management team to clearly identify work packages, communicate scopes we intend to self-perform, and manage the bidding and subcontracting plan throughout the procurement and construction phases. The plan will be a living document and, as such, will be maintained and updated throughout the duration of the procurement phase. The plan will define the scopes to be self-performed and procured thru a negotiation process, and scopes that will be procured thru a subcontract bidding process. A sample plan for an unrelated project is provided below.

SAMPLE Subcontract Packages

BP#	DESCRIPTION	TOTAL COST
NEGOTIATED SELF-PERFORMED WORK (NSP) 50% MAX		
01	01 - Aerial Guideway	
02	02 - Earthwork & Grading	
03	03 - Removals	
04	04 - Stations Structural	
05	05 - Parking Garage Structural	
06	06 - Drainage	
08	08 - Site Structures	
36	36 - CIP Walls	
	Subtotal	
NON-NEGOTIATED SELF-PERFORMED WORK (CBY) 20% MAX		
19	19 - Elevators & Escalators	
29	29 - Trestles	
34	34 - Architectural	
37	37 - Wet Utilities	
38	38 - Soldier Pile Walls	

39	39 - Noise & Screen Walls	
	Subtotal	

COMPETITIVELY BID WORK (CBN) 30% MIN		
07	07 - Potholing	
09	09 - Streetwork	
10	10 - OCS Foundations	
11	11 - Drilled Shafts	
13	13 - Stray Current Protection	
14	14 - Painting	
15	15 - Post-Tensioning	
16	16 - Soil Nail Walls	
17	17 - Trackwork	
18	18 - Fire Suppression	
21	21 - Plumbing	
22	22 - HVAC	
23	23 - Electrical (Buildings)	
24	24 - Building Demolition	
25	25 - Clearing	
27	27 - Site Electrical	
28	28 - Landscaping & Furnishings	
30	30 - Asphalt Paving	
33	33 - Signs, Fence, Guardrail	
35	35 - Concrete Barrier	
41	41 - Train Control	
42	42 - Pavement Markings	
43	43 - Concrete Pavement	
	Subtotal	

Table 1 Key:

NSP – Negotiated Self-Perform (Skanska can perform 50% Max)

CBY – Competitive Bid Yes (Skanska can perform 20% Max)

CBN – Competitive Bid No (30% Min)

Subcontract Bidding & Buyout

SFJV recognizes and accepts that the subcontractor and supplier selection and contracting procedures specified in GC-9 of the General Conditions of the prime contract are intended to promote pricing or buyout of the Work in a fair and reasonable manner and to maintain fair and open competition. As such, all subcontracted scopes shall be procured based upon either competitive bids awarded to the lowest responsive and responsible bidder or through the use of a Competitive Sealed Proposal Selection Process (CSPSP), awarded to proposers providing the best value to LAWA.

All scopes that SFJV intends to self-perform will be negotiated in conformance with SC-3 of the Special Conditions of the prime contract.

All packages will reinforce and define expectations for DBE participation that will be part of a responsiveness review. And achieving the project's DBE goal.

Subcontract Bidding

Prior to the design milestone that is mutually agreeable to SFJV and LAWA, SFJV will prepare Subcontract Bid Packages for the scopes that are to be procured competitively, in accordance with the Subcontract Packaging Plan. LAWA will review the bid packages and advise SFJV of their acceptability. At the issuance of the Issued for Pricing documents, SFJV will manage the subcontracting process for those packages it does not bid on, including:

- a. Preparation of bid packages
- b. Advertisement of bid packages
- c. Pre-bid meetings
- d. RFI and Addendum processes
- e. Receipt of bids
- f. Review of bids for responsiveness and responsibility or qualifications
- g. Bid levelling as required.
- h. Conformance to DBE participation requirements
- i. Recommendations for selection/award to LAWA

For those packages that SFJV may choose to competitively bid on, LAWA will manage items b. thru i. for the subcontract bid process described above.

Subcontract Buyout

SFJV and LAWA continue to discuss the appropriate design stage to activate the cGMP and subcontract bidding processes to manage buyout risks for the project. Procuring the subcontracted scopes and cGMPs at a 90% design level will increase the level of price surety and reduce risks and contingencies.

If the subcontract bidding process occurs after respective cGMPs are already in place, SFJV shall document the actual buyout costs of the subcontract packages as compared to the cGMP anticipated costs and will include with the recommendations for selection/award to LAWA.

Savings and losses resulting from the purchase or buyout of subcontracted scopes that are procured after cGMPs are in place will be tracked using a Subcontracts Buyout Fund (SBF). Risk allocations defined in the respective cGMPs will further define how the savings and/or losses are allocated.

MONITORING PERFORMANCE

During the construction phases of the project, the Project Controls Management team will track performance of the self-perform and subcontracted scopes using a combination of schedule and cost tools including earned value management.

For purposes of tracking progress payments, a Schedule of Values will be developed that itemizes the Cost of the Work elements as agreed by SFJV and LAWA. The self-perform and subcontracted scopes will be detailed by respective packages, as shown in an example in Figure 1 below.

(Within each package, the Work will be further broken down into discrete activities that can be quantified and verified to serve as the basis of payment for progressing activities. This would include using quantities and unit costs with descriptions to calculate earned values for payment purposes. Examples of payment items at the activity level are provided in Figure 2.

Figure 1

A.2 Schedule of Values - Activities with Earned Value						
Budgeted Labor Cost						
Current Earned Value						
L300 - Schedule of Values Summary						
Schedule of Values Item Details						
Pay Item 1 GCCM FIXED FEE	Item Value	Previous Billing	Period Billing	JTD Billing	% Complete	
GCCM Fixed Fee (EW)	\$ 3,699,625	\$ 3,699,625	\$ -	\$3,699,625		
Pay Item 2 SPECIFIED GENERAL CONDITIONS	\$ 22,343,670	\$ 21,606,119	\$ 85,031	\$21,691,150		
Pay Item 3 SUBCONTRACT BID PACKAGE COST	\$ 597,244,327	\$ 591,976,714	\$ 2,590,262	\$594,566,975		
Negotiated Self Perform (NSP) (EW)	\$ 10,193,106	\$ 10,144,357	\$ 34,818	\$10,179,375		
Negotiated Self Perform (NSP) (MP)	\$ 289,939,851	\$ 288,764,437	\$ 494,866	\$289,259,303		
BP06 - Storm Drain (Interwest Construction)	\$ 10,133,963	\$ 10,100,672	\$ (297)	\$10,100,375		
BP07 - Potholing (Skanska Constructors L300)	\$ 1,467,899	\$ 1,434,871	\$ -	\$1,434,871		
BP08 - Site Structures (Skanska Constructors L300)	\$ 3,129,708	\$ 3,129,708	\$ -	\$3,129,708		
BP10 - OCS Foundations - Drilled (MidMountain)	\$ 1,389,000	\$ 1,389,000	\$ -	\$1,389,000	100%	
BP11 - Drilled Shafts (Malcolm)	\$ 15,300,000	\$ 15,300,000	\$ -	\$15,300,000		
BP12 - Joint Seals (Skanska Constructors L300)	\$ 502,248	\$ 502,248	\$ -	\$502,248		
BP14 - Guideway Painting & Coatings (Purcell)	\$ 792,000	\$ 792,000	\$ -	\$792,000	100%	
BP15 - Guideway Rebar/PT (Harris Rebar)	\$ 16,301,868	\$ 16,301,868	\$ -	\$16,301,868		
BP16 - Soil Nails (Malcolm)	\$ 4,416,378	\$ 4,416,378	\$ -	\$4,416,378		
BP17 - Trackwork (Railworks)	\$ 25,099,444	\$ 25,067,905	\$ -	\$25,067,905		
BP19 - Conveying Equip (TMA&M JV)	\$ 10,461,000	\$ 10,417,283	\$ 6,619	\$10,423,902	100%	
BP20 - Overhead Storm Drain (Skanska Constructors L300)	\$ 3,138,440	\$ 3,138,440	\$ -	\$3,138,440	100%	
BP24 - Detention Vaults (MidMountain)	\$ 16,635,000	\$ 16,625,654	\$ -	\$16,625,654		
BP27 - Site Electrical (MidMountain)	\$ 7,137,703	\$ 6,253,845	\$ 537,389	\$6,791,034		
BP29 - Flatwork/Hardscapes and Furnishings (MidMountain)	\$ 6,970,833	\$ 6,602,521	\$ 194,246	\$6,796,767	98%	
BP30 - Asphalt Paving (MidMountain)	\$ 4,063,000	\$ 4,063,000	\$ -	\$4,063,000	100%	
BP33 - Chain Link Fencing & Gates (Perimeter Security Group)	\$ 1,623,742	\$ 1,570,536	\$ 45,936	\$1,616,472	100%	
BP34 - Architectural (Skanska Constructors L300)	\$ 47,179,502	\$ 47,152,796	\$ 26,706	\$47,179,502		
BP35 - Concrete Barrier (Skanska Constructors L300)	\$ 2,110,417	\$ 1,756,430	\$ 11,240	\$1,767,670	84%	
BP37 - Site Sewer & Water (MidMountain)	\$ 2,291,800	\$ 2,290,424	\$ -	\$2,290,424		
BP38 - SP Walls/Auger Cast Shafts (Malcolm)	\$ 2,563,099	\$ 2,563,099	\$ -	\$2,563,099		
BP39 - Noise Walls & Acoustical Panels (Skanska Constructors L300)	\$ 11,541,000	\$ 11,541,000	\$ -	\$11,541,000	100%	

Figure 2

A.2 Schedule of Values - Summary

Budgeted Labor Cost	(Multiple Items)				
Current Earned/Value	(All)				
L300 - Schedule of Values Summary					
Schedule of Values Item Details					
	Item Value	Previous Billing	Period Billing	JTD Billing	% Complete
Pay Item 1 GCCM FIXED FEE	\$ 56,086,953	\$ 54,826,147	\$ 217,289	\$ 55,043,436	97%
GCCM Fixed Fee (EW)	\$ 3,699,625	\$ 3,699,625	\$ -	\$ 3,699,625	100%
GCCM Fixed Fee (MP)	\$ 52,997,328	\$ 51,126,522	\$ 217,289	\$ 51,343,811	97%
Pay Item 2 SPECIFIED GENERAL CONDITIONS	\$ 22,343,670	\$ 21,606,119	\$ 85,031	\$ 21,691,150	97%
Specified General Conditions (EW)	\$ 3,858,670	\$ 3,858,670	\$ -	\$ 3,858,670	100%
Specified General Conditions (MP)	\$ 18,485,000	\$ 17,747,449	\$ 85,031	\$ 17,632,480	96%
Pay Item 3 SUBCONTRACT BID PACKAGE COST	\$ 606,903,757	\$ 591,976,714	\$ 2,590,282	\$ 594,566,975	98%
Negotiated Self Perform (NSP) (EW)	\$ 12,347,815	\$ 10,144,557	\$ 34,818	\$ 10,178,375	82%
Negotiated Self Perform (NSP) (MP)	\$ 291,236,116	\$ 288,764,437	\$ 494,866	\$ 289,259,303	99%
L300.1170-Curb & Gutter / Curb Ramps (4 ea)	\$ 73,755	\$ 73,755	\$ -	\$ 73,755	100%
L300.1180-HMA Paving	\$ 111,266	\$ 111,266	\$ -	\$ 111,266	100%
L300.1190-Pavement Markings	\$ 98,501	\$ -	\$ 49,250	\$ 49,250	50%
L300.1350-W-3528-R Security Fencing (400')	\$ 20,238	\$ 20,238	\$ -	\$ 20,238	100%
L300.1360-W-3144 & 3544 Guardrail (558')	\$ 24,701	\$ 24,701	\$ -	\$ 24,701	100%
L300.1370-W-3597-R Emergency Railing (1033 LF)	\$ 55,000	\$ 55,000	\$ -	\$ 55,000	100%
L300.1380-Roadway Drainage Structures 6 ea. & 12" SD 488 LF	\$ 34,622	\$ 34,622	\$ -	\$ 34,622	100%
L300.1390-Bioretenion Swale 2-1 & 2 ea. MH's & 12" SD 132 LF	\$ 21,226	\$ 15,919	\$ -	\$ 15,919	75%
L300.1400-Install Drainage MH's & 12" SD/ 425'	\$ 29,651	\$ 29,651	\$ -	\$ 29,651	100%
L300.1410-Install Bioretention Swale 2-1	\$ 10,173	\$ -	\$ -	\$ -	0%
L300.1420-Backfill East Side of CIP Wall N21-1	\$ 36,113	\$ 32,502	\$ -	\$ 32,502	90%
L300.2560-Excavate to Elev. 331' 363 CY	\$ 120,653	\$ 120,653	\$ -	\$ 120,653	100%
L300.2570-Install West Pond WQ Structure & (-76) to Pond	\$ 17,188	\$ 17,188	\$ -	\$ 17,188	100%
L300.2580-Install 12" SD 327 LF from WQ to Struct. (-73' -72' -57' -58')	\$ 17,188	\$ 17,188	\$ -	\$ 17,188	100%
L300.2600-Install Outfall at Exist Outfall Location	\$ 17,188	\$ 17,188	\$ -	\$ 17,188	100%
L300.2610-Build Pond Berms to Elev 337' 1200 CYS	\$ 50,905	\$ 50,905	\$ -	\$ 50,905	100%
L300.2630-Install LCC East Pond WQ	\$ 50,905	\$ 50,905	\$ -	\$ 50,905	100%
L300.2640-Install 12" SD 240 LF from Pond to Struct. (-89' -87' -WQ)	\$ 17,188	\$ 17,188	\$ -	\$ 17,188	100%
L300.2650-Install 12" SD 19 LF from E. Pond WQ to Struct. (-80) from P. Garage	\$ 17,188	\$ 17,188	\$ -	\$ 17,188	100%
L300.2670-E Pond Outfall 18" 55 LF to Struct. (-170) Tie to Exist Pipe	\$ 17,188	\$ 17,188	\$ -	\$ 17,188	100%
L300.2880-Excavate to Elev 331' 600 CYS	\$ 120,653	\$ 120,653	\$ -	\$ 120,653	100%
L300.2890-Estabfish Berms	\$ 50,905	\$ 50,905	\$ -	\$ 50,905	100%
L300.2900-P01-1R/L - Leveling Pad	\$ 55,330	\$ 55,330	\$ -	\$ 55,330	100%
L300.2910-P01-1R/L - 2nd Row MSE Panels (xx SF)/ Straps & Backfill	\$ 144,019	\$ 144,019	\$ -	\$ 144,019	100%
L300.2960-Install New Control Structure	\$ 53,362	\$ 50,694	\$ -	\$ 50,694	95%
L300.2980-Place Invert Concrete (LCC EX SE Vault)	\$ 311,937	\$ 311,937	\$ -	\$ 311,937	100%
L300.2990-Install Geosynthetic Fill Wall N19-2 Sta 14+00 to 15+00 North Side	\$ 124,200	\$ 124,200	\$ -	\$ 124,200	100%
L300.3000-Install Geosynthetic Fill Wall N19-2 West Side Sta 11+75 to 14+50	\$ 124,200	\$ 124,200	\$ -	\$ 124,200	100%
L300.3010-Install Geosynthetic Fill Wall N19-2 South Side Sta 10+00 to 11+75	\$ 124,200	\$ 124,200	\$ -	\$ 124,200	100%
L300.3020-Install SP Cut Walls East Side Sta 19+50 to 20+50	\$ 85,063	\$ 85,063	\$ -	\$ 85,063	100%
L300.3030-Install Entrance Apron & Loop Silework	\$ 36,877	\$ 36,877	\$ -	\$ 36,877	100%
L300.3040-Install Drainage - MLT Temp Lot	\$ 24,431	\$ 24,431	\$ -	\$ 24,431	100%
L300.3050-Install Temp Parking Lot Lighting -UG	\$ 37,000	\$ 37,000	\$ -	\$ 37,000	100%
L300.3060-Build Access Roads at 59th	\$ 138,717	\$ 138,717	\$ -	\$ 138,717	100%
L300.3070-Backfill / Grade Site	\$ 18,113	\$ 18,113	\$ -	\$ 18,113	100%
L300.3080-Place CSTC Stone	\$ 58,717	\$ 58,717	\$ -	\$ 58,717	100%
L300.3090-Place HMA Paving	\$ 46,499	\$ 46,499	\$ -	\$ 46,499	100%
L300.3100-Pavement Marking -Temp Lot	\$ 32,640	\$ 32,640	\$ -	\$ 32,640	100%
L300.3130-Install SP Cut Wall N19-2 Sta 15+00 to 18+00 North Side	\$ 85,063	\$ 85,063	\$ -	\$ 85,063	100%
L300.3140-Install SP Cut Walls South Side Sta 20+75 to 21+38	\$ 85,063	\$ 85,063	\$ -	\$ 85,063	100%

Appendix 11 – Project Controls Plan



Project Controls Plan (PR-01)

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Contents

Project Controls Plan.....	3
1 Overview	3
2 Bonding and Insurance	3
3 Cost and Schedule Management	4
3.1 Milestones and Liquidated Damages	4
3.2 Schedule of Values (SOV)	5
3.3 Baseline CPM Schedule	6
4 Document Control.....	6
5 Changes and Modifications.....	6
6 Disputes and Claims	6
6.1 Insurance-related Claims Management	6
6.2 Contract Disputes and Claims Management.....	6

Project Controls Plan

1 Overview

This section describes the project's planning, scheduling, budgeting, executing, and reporting project control processes.

The major project controls tools will include:

- **Procore** - Comprises a multipurpose set of web technologies powered by a common technical infrastructure. Procore can provide, document & file management, collaboration, enterprise search, and business intelligence. It also has system integration, process integration, and workflow automation capabilities. SFJV will use Procore primarily for document and file management.
- **Prolog** – LAWA's document control system. SFJV will utilize prolog for all official correspondence, transmittals, submittals, and RFI's to LAWA.
- **Primavera P6R19** – SFJV's preferred software for scheduling and cost/schedule integration; as well as alignment and compatibility with LAWA.
- **Construction Financial Management** - Job cost control system, which contains a database to manage all cost and revenue for the Project. SFJV uses JDEdwards for internal reporting.
- **HeavyBid** – Utilized primarily for estimating large joint venture and design-build projects. HeavyBid contains a cost history database for accurate estimates, has the ability to monitor and meet DBE goals, and can manage sub and supplier quotes.
- **Bluebeam Revu** – Used for constructability reviews, interdisciplinary reviews, and other internal reviews as needed

2 Bonding and Insurance

SFJV will provide and maintain at all times during the term of the Contract, financial security for performance of the Work which include for Phase 1 the following, additional insurance and bonding will be procured to cover Phase 2 construction work.

- 100% Payment and Performance Bond
- Insurance as defined in the table below

Insurance Coverage	Limit	Term	Deductible
Commercial General Liability	\$5M/\$10M/\$10M	24 Months	\$1,000,000
Auto Liability (Hired and Non-Owned)	\$2,000,000	Annual	N/A
Excess Liability	\$25M	24 Months	N/A
Professional Liability	\$5M/\$5M	24 Months	\$1,000,000
Pollution Liability	\$5M/\$5M	24 Months	\$100,000
Workers Compensation	Statutory/\$2M	Annual	N/A

Performance and Payment Bonds, each in the amount of 100% of the total contract, and certificates of insurance were submitted prior to execution of the contract.

3 Cost and Schedule Management

3.1 Milestones and Liquidated Damages

Time is of the essence on this project and managing the work in accordance with a well-thought out, comprehensive schedule is critical to our success. We will carry out the Work to ensure completion prior to the milestone dates

Airfield and Terminal Modernization Project (ATMP) Roadway Improvements		
Milestone	Description	Liquidated Damages Amount
Schedule Deliverable 1 60 Calendar Days After Phase 1 NTP	Failure to submit Contract Compliant Phase 1 Baseline Schedule to LAWA	\$5,000/day
Schedule Deliverable 1a	Failure to Resubmit Contract Compliant Phase 1 Baseline Schedule to LAWA within 15 Calendar days after LAWA review and comment.	\$5,000/day
Schedule Deliverable 2 1st of each month	Failure to submit Contract Compliant Monthly Schedule Updates to LAWA	\$5,000/day
Milestone 1 180 Calendar Days After Phase 1 NTP	Preliminary Assessment, Alternatives Analysis, and Proof of Concept Reports	\$X,XXX/day
Milestone 2 xxx Calendar Days After Phase 1 NTP	Guaranteed Maximum Price (GMP)/Component Guaranteed Maximum Price (CGMP) • 60% Completion of the Construction Documents and Construction Models for the Project • Completion of the GMP checklist	TBD/day
Milestone 3 xxx Calendar Days After Phase 1 NTP	90% and 100% Completion of the Construction Documents and Construction Models for the Project	TBD/day
Milestone 4 Calendar Days After Phase 2 NTP	Substantial Completion of Guaranteed Maximum Price (GMP)/Component Guaranteed Maximum Price (CGMP) Work Packages in accordance with the Contract Documents	TBD/day
Milestone 5 June 30, 2028 Calendar Days After Phase 2 NTP	Final Completion in accordance with the Contract Documents	TBD/day

3.2 Schedule of Values (SOV)

A schedule of values will be prepared and submitted within 30 days of NTP and revised and updated as changes to the contract occur, additional task orders or GMP's are executed, or change orders are executed. Please see the individual submittals for the most current submittal schedules for each task order.

3.3 Baseline CPM Schedule

SFJV has submitted a baseline schedule, and continues to provide updates to the baseline schedule with each major design milestone as described in PR-01, as well as monthly updates to the as-builts.

4 Document Control

SFJV will designate a Document Control Manager to be responsible for and oversee all document control processes on this project, including integrating our sub-consultants and sub-contractors. SFJV will be utilizing ProCore as the internal Document Control System (DCS) to store and record all correspondence, design specifications, drawings, progress reports, technical reports, specifications, Contract Documents, submittals, calculations, test results, inspection reports, nonconformance reports, administrative documents, and other documents generated under the Contract. Customized project workflows and reports will be programmed into the DCS, which will incorporate the review and approval, routing, filing, control, and retrieval methods for all documents. All official document control with LAWA will use Prolog.

5 Changes and Modifications

SFJV will implement a Change Management process, which will include processing of Change Orders and Modifications pursuant to the Contract and as issued by LAWA.

6 Disputes and Claims

6.1 Insurance-related Claims Management

SFJV will establish and implement a proactive Claims Management program for the handling and disposition of all claims arising out of the Contractor's performance of the Work, including claims that the Contractor pays or settles directly under the deductible limits of its required insurance policies and claims submitted to its insurance carriers. SFJV will maintain a Claims Status Report which shall set forth in matrix format (1) the nature of the claim; (2) the claiming party; (3) the dollar amount of the claim; (4) whether the claims has been submitted to an insurance carrier; and (5) the resolution or status of the claim to date.

6.2 Contract Disputes and Claims Management

[Any dispute or claim under or in connection with the Contract will be managed per the requirements of the Contract, as defined in GC-62 and GC-63.

Appendix 12 – Quality Control Plan (PR-14)



Quality
Assurance/Quality
Control

SKANSKA | FLATIRON

Skanska-Flatiron Joint Venture **Quality Assurance & Quality Control**

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD		Page 2 of 38	
PROJECT-WIDE QAQC PLAN		Rev. #	Date Approved
		1	

Contents

1. TERMS AND DEFINITIONS	5
1.1 ACRONYMS AND DEFINITIONS	5
2. SCOPE.....	6
2.1 APPLICATION	6
3. QUALITY ORGANIZATION, ROLES, AND RESPONSIBILITIES	7
3.1 MANAGEMENT REPRESENTATIVES.....	8
4. PRE-WORK COORDINATION	12
4.1 PROJECT SPECIFIC CONSTRUCTION QC PLAN, ITP, AND PRE-CONSTUCTION MEETING	12
5. QUALITY MEASUREMENT, ANALYSIS, AND IMPROVEMENT.....	13
5.1 Monitoring and Measurement of Product.....	14
5.1.1 Receiving Inspection	14
5.1.2 Quality Control Inspection.....	15
5.1.3 Completed Work	16
5.1.4 Quality Records	16
6. DOCUMENTATION REQUIREMENTS.....	17
6.1 Quality Program.....	18
6.2 Control of Documents.....	18
6.3 Control of Records.....	19
7. PRODUCT AND SUBCONTRACT PROCESSES	20
7.1 Determination of Requirements Related to the Product.....	20
7.2 Review of Requirements Related to the Product.....	20
7.3 External Communication	20
7.4 Purchasing and Subcontracting	20
7.4.1 Purchasing and Subcontracting Process	20
7.4.2 Purchasing and Subcontracting Information	21
7.4.3 Verification of Purchased Product	21
8. PRODUCTION AND SERVICE PROVISION	22

SKANSKA | FLATIRON		ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD		Page 3 of 38	
PROJECT-WIDE QAQC PLAN				Rev. #	Date Approved
				1	

8.1	Control of Production and Service Provision	22
8.2	Validation of Processes for Production and Service Provision	23
8.3	Identification and Traceability	24
8.4	LAWA Property	24
8.5	Preservation of Product.....	25
8.6	Control of Monitoring and Measuring Devices	25
8.7	Control of Nonconforming Product	26
8.8	Analysis of Data	27
8.9	Improvement.....	28
8.9.1	Continual Improvement	28
8.9.2	Corrective Action	28
8.9.3	Preventive Action	28
8.9.4	Audit and Surveillance.....	29
9.	MANAGEMENT RESPONSIBILITY	29
9.1	Management Commitment	29
9.2	Customer Focus	30
9.3	Quality Policy.....	30
9.4	Quality Management System Objectives.....	30
9.5	Responsibility, LAWA and Communication.....	31
9.5.1	Internal Communication.....	31
9.6	Management Review.....	31
9.6.1	Review Input.....	32
9.6.2	Review Output.....	32
10.	RESOURCE MANAGEMENT.....	32
10.1	Provision of Resources.....	32
10.2	Human Resources	33
10.2.1	Competence, Training, and Awareness.....	33
10.3	Infrastructure	34
10.4	Work Environment	34

PROJECT-WIDE QAQC PLAN

Rev. #

Date Approved

1

APPENDIX 1 – QUALITY PROCEDURES	36
APPENDIX 2 – DESIGN QUALITY MANAGMENT PLAN	37
APPENDIX 3 – RESUMES OF QUALTIY PERSONNEL	38

PROJECT-WIDE QAQC PLAN

Rev. #

Date Approved

1

1. TERMS AND DEFINITIONS

Term	Definition
Client/Owner	Los Angeles World Airports (LAWA)
Contractor or Design-Builder	Skanska-Flatiron A Joint Venture
SFJV Design Subcontractor	HNTB
SFJV Independent Testing Laboratory	TBD
Authority Having Jurisdiction (AHJ)	An entity such as state, county, city, or utility that has the right to control or govern a defined area of the Work

1.1 ACRONYMS AND DEFINITIONS

Acronym	Definition
CAR	Corrective Action Report
DCP	Document Control Procedure
ITP	Inspection and Test Plan
NCR	Non-conformance Report
PM	Project Manager
PQMS	Project Quality Management System
PSCQCP	Project Specific Construction QC Plan
QAQCP	Program Wide QAQC Plan
QCM	Quality Control Manager
QMS	Quality Management System
QP	Quality Procedure

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 6 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

2. SCOPE

This Program Wide QAQC Plan (QAQCP) provides the administrative and organizational structure for the Quality Program Skanska-Flatiron JV will employ throughout the Design-Build Contract ATMP Roadway Improvement Project. The QA/QC Program provides the controls and tools necessary to ensure conformance with the contract requirements established by the Los Angeles World Airports (LAWA). The highest level of management commitment is dedicated to providing the necessary resources, communications, training, and organizational freedom for putting in place a successful quality management system throughout the duration of the Project.

For the program to be fully effective, all employees, sub-consultants, subcontractors, and suppliers must understand, accept, and fully implement the program. SFJV will ensure design requirements and performance objectives are clear and that the information and processes needed to control and complete design and construction are accurate. Managers are devoted to coordinating their operations and instilling a focus on providing LAWA with a project that meets or exceeds quality requirements.

This QAQCP describes the Design-Builder's overall QA and QC elements to be implemented by SFJV and is supplemented by the Quality Procedures (QP) in Appendix 1 of this QAQCP. This Quality Program is a combination of the Project's Quality Assurance measures and Construction Quality Control processes. Additionally, this QAQCP is supplemented with the Design Subcontractor, HNTB Project Design Quality Management Plan (DQMP, Appendix 2) which addresses both QA and QC elements in the plan and attached procedures to be implemented by HNTB on their design activities. All of these documents, the QAQCP, QP, and DQMP combine into a complete Quality Management System.

2.1 APPLICATION

The QAQCP, and the references contained herein, apply to all applicable activities performed by SFJV and its subconsultants, subcontractors, and suppliers within the scope of the Contract for the ATMP Roadway Improvement Project.

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 7 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

3. QUALITY ORGANIZATION, ROLES, AND RESPONSIBILITIES

SFJV developed, implemented, and maintains this QAQCP as a means of ensuring the ATMP Roadway Improvements Project is constructed in conformance with the Contract requirements. The sequence and interaction of work processes to conform to the requirements are controlled and maintained by the responsible SFJV personnel, as shown in the Quality Management Organizational Chart, with general oversight from the Project Manager.

The Project Manager plans, administers, and authorizes the use of resources of all departments within SFJV to satisfy functional and technical requirements and perform the services contracted with subconsultants, subcontractors, and suppliers. The Project Manager is directly responsible for the general administration and overview of the Project staff, and for assurance all Project requirements are met. The responsibility to implement this QAQCP rests with the Quality Control Manager (QCM).

To monitor the work being produced, and establish impartiality in review, personnel conducting oversight activities including quality audits, surveillances, and inspection activities will be independent to those having direct responsibility for the subject work being built or installed. When necessary, corrective actions will be implemented when deficiencies from these audits, surveillances or inspection activities are discovered.

The QAQCP will function as a continually improving quality system to ensure suitable measures throughout the Project's lifecycle. This will be done primarily through management audit and surveillance reports, consistently analyzing inspection and test results, and reviews of the quality program by SFJV Senior Management. Revisions to the Program Wide QAQC Plan will be documented and logged. See Attachment 1.

Key individuals responsible for implementing the QAQCP and their respective responsibilities are identified below. Refer to the Quality Organization Chart, as shown in Figure 2.2 (Quality Organizational Chart) for the oversight reporting requirements within the quality system.

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 8 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

3.1 MANAGEMENT REPRESENTATIVES

Project Manager

SFJV Project Manager has the ultimate responsibility for implementing and authorizing the use of resources to meet the project requirements, including the Quality Program. This responsibility is accomplished through:

- Delegating the day-to-day operation of the QAQCP to subsequent management
- Reporting administratively to SFJV Executive Management
- Establishing an organizational structure providing quality program activity independent from personnel involved in the activity.
- Attending management reviews of the QAQCP to ensure its continuing adequacy and effectiveness.
- Providing staff support and appropriate resources to achieve the objectives of the QAQCP.
- Directing all Project activities and acting as the single point of contact with LAWA

Construction Manager

SFJV Construction Manager is responsible for aspects related to the Project construction, including completing work in compliance with the QAQCP. This responsibility is accomplished through:

- Coordinating with the QCM and field personnel to address all quality issues.
- Scheduling, monitoring progress, and the compliant completion of work.
- Providing advance notice of work requiring inspection and testing to SFJV QC, LAWA, and authorities having jurisdiction as required
- Providing adequate construction supervision to ensure quality workmanship.
- Monitoring subcontractor and supplier performance
- Attending pre-construction meetings, developing, and reviewing Project Specific Construction QC Plan

Quality Control Manager

The Quality Control Manager (QCM) is responsible for the implementation of the Quality Management System and adherence to the QAQC Plan. This responsibility is accomplished through:

- Reporting administratively to SFJV Executive Management
- Ensuring the promotion of awareness of the contract quality requirements throughout SFJV organization
- Administering a continually improving quality process

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 9 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

- Assuring this QAQCP is maintained.
- Assuring affected persons performing inspection and testing are qualified for the task.
- Managing construction inspection and testing including subcontractor activities associated with inspection and laboratory testing.
- Controlling the progression of work not meeting contract requirements through issuance of a Stop Work Order
- Managing nonconformance, corrective action processes, including identifying and reporting nonconformance and corrective action and verifying actions prior to closure

As indicated in Figure 2.1 (Quality Organizational Chart), two key personnel will report to and aid the QCM in conforming to the Contract quality requirements:

- Design Quality Manager
- Lead Inspector

Design Quality Manager (DQM)

Design quality functions are the responsibility of the DQM, who monitors compliance with the Quality Program, Design Quality Management Plan (Appendix 2) and hence the Contract documents. All Approved for Construction design plan packages require certification of the DQM prior to issuance to SFJV. Quality control during design is provided by the design staff independently checking each other's work and qualified design staff performing formal and documented interdisciplinary coordination reviews at pre-determined times on each submittal. The DQM monitors implementation of the procedures of the design staff and certifies compliance with the Quality Program of each submittal package.

Lead Inspector

The Lead Inspector is responsible for the implementation of the Construction Quality Program at the job site and reports directly to the Quality Control Manager. He or she will supervise the work of the QC Inspectors and Field Technicians as well as conduct or monitor the day-to-day inspection and testing of construction activities within their respective work elements. The Lead Inspector's responsibilities include:

- Coordinating and assigning QC Inspectors and ITL Technicians to work activities performed by on and off-site construction personnel, subcontractors, and others.
- Review Daily Inspection Reports and QC testing results to ensure contract requirements have been met.
- Monitor QC Inspection and testing frequency for compliance with the ITPs and Contract documents.
- Verify QC Inspectors and ITL Technicians have the certifications, licenses, quality training, and qualifications that meet the Project Requirements

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 10 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

- Perform daily inspections and interface with the foreman, superintendents, and LAWA representatives.
- Address field quality issues with appropriate personnel and report on all issues

QC Inspector

The QC Inspectors provide sufficient in-process QC inspection of all construction activities in their assigned area. QC Inspectors are responsible for the following:

- Recording observations and inspections in Daily Inspection Reports
- Inspecting materials delivered to the project and completing Material Receiving Reports
- Collecting and submitting all quality-related documentation prepared by subcontractors and construction staff.
- Verify work is performed with approved documentation, As-Builts are being updated as required and all nonconforming conditions are reported.
- Communicating and coordinating with the construction foreman, superintendents, ITL Technicians, LAWA and AHJ representatives

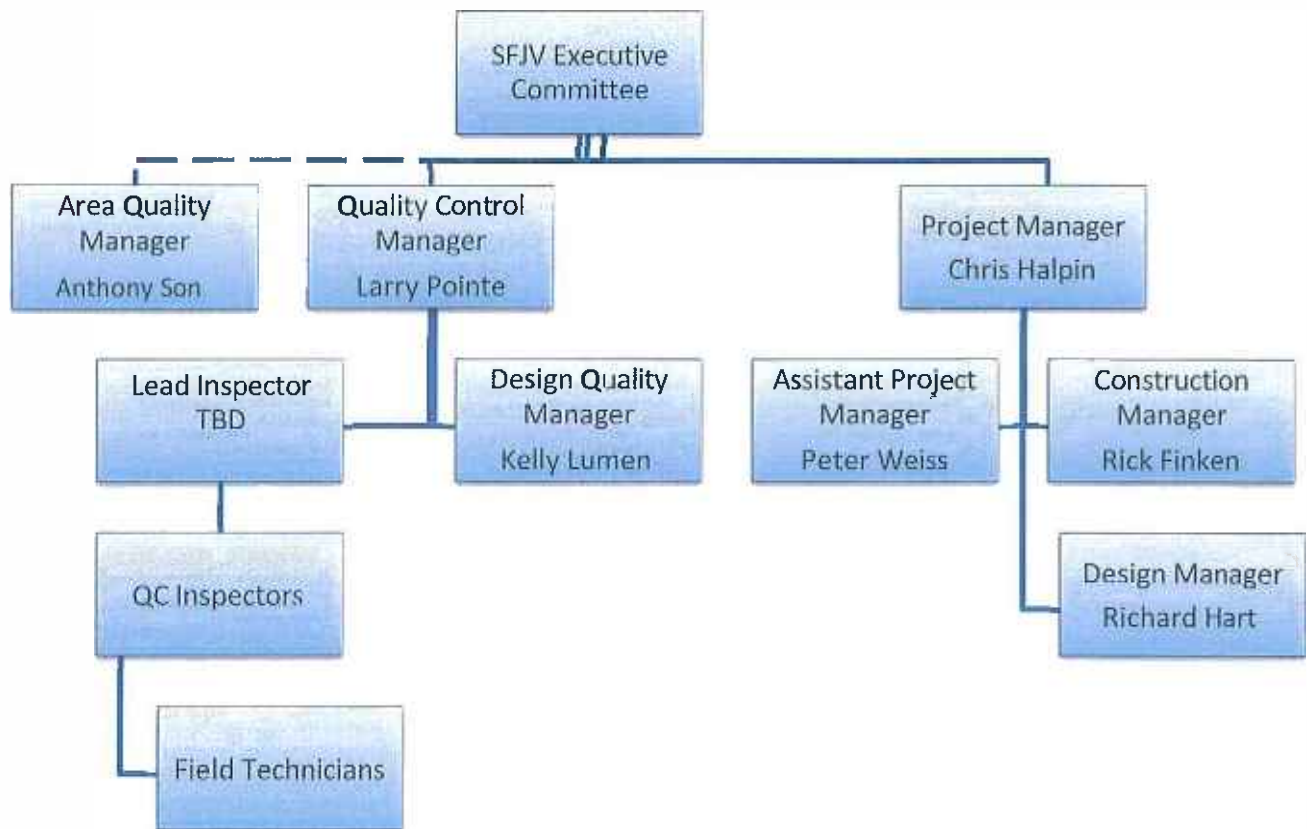
Independent Testing Laboratory (ITL) Technician

The ITL Technician will be on-site as required to perform all quality control tests and measurements as required by the Inspection and Test Plans and Project Requirements. His or Her duties include:

- Verify current calibration and proper maintenance of testing and measuring equipment.
- Perform material sampling and testing in compliance with the Inspection and Test Plans, codes, standards, and jurisdictional requirements.
- Document and communicate test results promptly.

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD		Page 11 of 38	
PROJECT-WIDE QAQC PLAN		Rev. #	Date Approved
		1	

Figure 3.1 QUALITY MANAGMENET ORGAZATIONAL CHART



SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD		Page 12 of 38	
PROJECT-WIDE QAQC PLAN		Rev. #	Date Approved
		1	

4. PRE-WORK COORDINATION

4.1 PROJECT SPECIFIC CONSTRUCTION QC PLAN, ITP, AND PRE-CONSTRUCTION MEETING

Prior to beginning construction on any definable feature of permanent work, a Project Specific Construction QC Plan (PSCQCP) will be developed to ensure that SFJV and its subcontractors meet the requirements of the contract. A definable feature of work is a task that is separate and distinct from other tasks and has separate control requirements. A preliminary list of these tasks will include each contract Work Package. The Project Specific Construction QC Plan requires qualified, trained individuals to ensure all construction materials, methods, workmanship, coordination, and end products meet the Contract's technical and quality requirements.

Prior to construction, a Pre-Construction meeting will be held, and the Project Specific Construction QC Plan will be reviewed. Included in the meeting will be LAWA, QC Manager, Construction Manager, Safety Representative, necessary inspectors, SFJV management involved in the work, and applicable subcontractors, AHJ's, and vendors. Prior to the meeting, the QC Manager will provide LAWA with the Project Specific Construction QC Plan and agenda for review.

The purpose of the Pre-Construction meeting is to review the Project Specific Construction QC Plan and to ensure all pre-construction requirements are complete and that there are no misunderstandings with regards to the quality and technical requirements of the feature of work, as well as the safety, coordination, and environmental precautions to be taken. A review of the appropriate Project specifications and plans, materials, and equipment to be used, testing requirements, acceptance criteria, including workmanship, and the documentation to be submitted attesting to the achievement of the quality and technical requirements. Interfaces with LAWA and their representatives are identified, including other third-party inspection or regulatory personnel.

The Pre-Construction meeting will be documented by the Quality staff and field engineer in charge of the work. When required the Project Specific Construction QC Plan will be revised with applicable changes from the meeting. The revised PSCQCP will be distributed to all attendees along with the attendance sign-in sheet.

In planning for upcoming activities, an Inspection and Test Plan (ITP) will be prepared identifying all activities comprising the quality control elements of the work. The ITP includes

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 13 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

hold points for what is to be tested/inspected, the agency performing the inspection/test, the frequency the inspection/test will be conducted, the procedure/reference standard, specified references, and record documents to be maintained. The ITPs will be integrated into the respective work's Project Specific Construction QC Plan.

A PSCQCP for major work elements will be submitted to LAWA for review, and include the following:

- Description of the Work with step-by-step sequence, inspection, and testing requirements
- List of Prerequisite Activities required.
- List of applicable Contract Specification Sections
- List of applicable Design Drawings
- List of applicable Shop or Working Drawings
- List of required Submittals and their Status
- List of Permanent Materials to be used and material receiving requirements.
- List of individuals and positions responsible for Supervision, inspection, and testing of the Work, including subcontractor supervision; providing phone numbers
- Scheduled start date
- Completed Inspection and Test Plan that includes Hold Points

5. QUALITY MEASUREMENT, ANALYSIS, AND IMPROVEMENT

SFJV will implement the monitoring, measuring, analysis, and improvement processes needed to:

- Demonstrate conformity to the Contract requirements.
- Ensure conformity of the QAQCP (e.g., via audit and surveillance), and
- Continually improve the effectiveness of the QAQCP (e.g., searching for opportunities for improvement via quality management reviews, and customer feedback).

The Quality Control Manager will ensure all work and products are inspected and tested in accordance with the Contract requirements. Specific methods will be employed to indicate the inspection and test status of work-in-progress and finished products. The status of completed, tested, and inspected construction will be preserved as ongoing records in accordance with documentation requirements.

An approved independent testing laboratory and personnel will be utilized to perform material

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 14 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

qualification and job control testing under the direction of SFJV QCM. Testing procedures will be those standardized methods and procedures of the testing laboratories. Where job-specific testing procedures are required, they will be prepared by the appropriate individuals and approved by the SFJV Quality Control Manager.

All testing laboratories used for the Project will be certified in accordance with the applicable Codes, Federal Standards, Utility Standards, Industry Standards, etc., and will be approved by LAWA prior to initiating work. Credentials of personnel conducting

or overseeing testing or inspection activities will be reviewed by SFJV, maintained on the jobsite, and available to LAWA upon request.

5.1 Monitoring and Measurement of Product

Inspections and testing to ensure compliance with the Contract requirements will be done by SFJV or its independent parties. Where LAWA standards exist, the inspection and/or tests will be conducted in accordance with LAWA-prescribed standards.

Inspecting or testing personnel are to follow the ITPs approved by SFJV and LAWA. All requirements for frequency of tests, acceptance/rejection criteria, inspection hold points, etc., as stated in the ITPs and plans and specifications are to be followed. All inspection and test records will be maintained as part of the Quality Records.

Initial inspections will be performed as soon as work begins on a representative section of the work. The initial inspection's purpose is to verify SFJV, and its subcontractor's personnel are familiar with all construction documents including their personal responsibilities on the Project. An examination of workmanship quality is conducted to confirm all work is performed in accordance with the established Contract requirements.

Follow-up inspections continue as work progresses to ensure compliance with the construction documents. Appropriate inspections and acceptance testing of work are subsequently conducted to ensure satisfactory performance of the completed work.

5.1.1 Receiving Inspection

The field inspection of materials or equipment delivered as the end product is guided by the Contract documents which, in most cases, provide for any required inspection.

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 15 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

and testing prior to shipment. SFJV Construction Manager overseeing the subject work is responsible for the purchase of materials and equipment, while the QCM is responsible for verifying appropriate inspection and testing is conducted. Receiving inspections will be performed in accordance with the Quality Procedure – QP 106, Quality Verification.

SFJV QC staff and the responsible construction personnel will coordinate their activities in such a manner to inspect deliveries of material or equipment to ensure conformance with the requirements. Items of material or equipment received are accompanied by appropriate documentation to render the item traceable.

The receipt of minor routine items may be made without the physical presence of the QC staff, but documentation will be reviewed at regular intervals to ensure conformance with requirements. At random times and locations, the QC staff will conduct an acceptance inspection and may have verification testing performed.

Structural elements may require off-site inspection during the manufacturing process. The subcontractor agreements or purchase orders stipulate suppliers and subcontractors notify the QCM when materials or other items requiring source inspection are ready for inspection. Hold points may be established when deemed necessary by the Quality Control Manager or the Project Manager, or as specified by LAWA. Inspection and testing of purchased materials, equipment, and services at off-site sources is conducted by SFJV QC staff in coordination with LAWA.

Many products, e.g., concrete, asphalt, fill, and coatings, arrive at the construction site and are used each day with partial but not fully accepted testing having been performed. To minimize the risk of having to remove materials failing subsequent tests,

daily use of materials is closely monitored, documented, and retained in a Daily Inspection Report (DIR) and subsequent test results. The DIRs will be maintained at the jobsite and available to LAWA.

5.1.2 Quality Control Inspection

SFJV Quality Control will utilize the required six-point inspection plan as detailed in PR 13/14-3.

- Pre-work coordination prior to the start of construction will be addressed through the Construction Quality Work Plan and the Pre-Construction Meeting.
- Initial inspection will include, but not be limited to checking the workmanship quality, conformance with approved documentation, adequacy of materials, inspection and

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 16 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

testing results and as-built drawings maintained daily. Within 2 weeks of the start of a new or changed operation, LAWA, SFJV QCM, supervisors and QC representatives will meet to evaluate the work performed to represent a physical baseline for quality and acceptability.

- Follow-up inspections will be performed regularly to monitor the workmanship quality established in the initial inspection. The QC Manager will review the inspections for conformance. Initial and Follow-up Inspections are outlined in Quality Procedure QP 115.
- Prior to the completion of an item or segment of work a LAWA Completion Inspection will be performed to verify the completed work is of acceptable quality and sufficiently complete to progress to the next stage of work.
- Final acceptance will be performed in two stages, Pre-Final Acceptance and Final Acceptance. The QC Manager, QC inspectors, and lead construction staff will verify all corrections, punch list items, non-conformance reports, Corrective Action Request, and items on the LAWA deficiency list have been corrected, accepted, and closed out prior to turnover to LAWA.

5.1.3 Completed Work

LAWA has the sole responsibility for final acceptance of all project work. LAWA's acceptance is based on their oversight of SFJV acceptance testing, final inspection and the audit and surveillance of the work. All deviations from specified test methods, frequencies, and specifications will require LAWA approval. Final acceptance follows the construction completion and final inspection. In some instances, SFJV may demobilize the job site after substantial completion, while punch list work is on-going, prior to final acceptance of the Work.

5.1.4 Quality Records

All inspections are recorded in the Inspector's DIR, including any applicable checklists and forms. For equipment, after installation it's often under a manufacturer's warranty or maintenance service; the equipment may even have a training component, which is to be delivered in conformance with the Project requirements. SFJV Project Manager has the responsibility for follow-up on and coordination of these activities until the final handing over of the facility to LAWA.

SFJV Document Control Manager maintains records of inspections and tests. These records are maintained in conformance with LAWA requirements and contain factual evidence that the

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 17 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

required inspections and tests have been performed. These records cover both conforming and defective or deficient features and include the compliance reports and necessary back-up data from SFJV subcontractors and material suppliers. These records include:

- Work performed by the contractor, subcontractor, and/or material supplier,
- Type and number of inspections or tests,
- Factual evidence the required inspections and tests have been performed,
- Results of inspections or tests,
- Nature of defects,
- Cause of rejection,
- Nonconforming activities,
- Basis for acceptance,
- Corrective action taken,
- Other data pertinent to the acceptance/rejection of the work.

Records and reports of inspection and test activity serve as quality acceptance documents.

Inspection and test activity records identify, at a minimum, the following:

- Name of item(s) inspected and tested,
- Quantity of items,
- Inspection and test procedure reference,
- Location inspection/test is being performed,
- Date,
- Name of inspector or tester,
- Observations and comments,
- Specified requirements,
- Acceptability,
- Deviations and non-conformances,
- Corrective action,
- Evaluation of results,
- Signature of authorized evaluator.

6. DOCUMENTATION REQUIREMENTS

The QAQCP is a part of the Quality Program, which encompasses all quality activities including detailed Quality Procedures (QP), Inspection and Test Plans (ITP), etc., implemented by SFJV to meet the Contract requirements. This overall system includes:

- Quality Policy statement (Incorporated into QAQCP)

SKANSKA | FLATIRON		Page 18 of 38	
ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD			
PROJECT-WIDE QAQC PLAN		Rev. #	Date Approved
		1	

- This Program Wide QAQC Plan (QAQCP)
- Documented Plans, Procedures, and Instructions
- Documents needed by SFJV to ensure effective planning, operation, and control of its processes.
- Records providing objective evidence of activity completion.

The QAQCP, as a part of the Quality Program, is prepared by the SFJV Los Angeles Area Quality Manager to provide the uniting document between all Quality Program documents. The QAQCP is approved by the SFJV Project Manager and then subsequently approved by LAWA prior to distribution by SFJV. Revisions to the QAQCP are approved, controlled, and distributed by SFJV under the same provisions as its original distribution.

6.1 Quality Program

The Quality Program defines the scope of quality management, procedures, responsibilities, and activities. The program includes the following Contract required documented processes:

- Control of Documents
- Control of Records
- Control of Design
- Design Verification
- Construction Quality Control Plans
- Pre-Construction Meeting
- Initial & Follow-up Inspection
- Daily Inspection Reporting
- Training
- Material Receiving
- Control of Measure Devices Monitoring/Measuring of Product
- Control of Nonconforming Product
- Corrective & Preventative Action
- Stop Work Order
- Redline and As-Builts
- Punchlist Process
- Substantial Completion & Final Acceptance

6.2 Control of Documents

SFJV Document Control Manager has primary responsibility for controlling pertinent documents

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 19 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

and records for the ATMP Roadway Improvement Project. Such documents include, but are not limited to Plans, Procedures, Instructions, correspondence, specifications, drawings, calculations, material requisitions, data sheets, design change documents, inspection and test reports, audit reports, corrective action requests, nonconformance reports, management reviews, and Inspection and Test Plans.

Further descriptions of the configuration management system; including routing, filing, control, and retrieval methods for all documents can be seen in the Document Control Procedures.

6.3 Control of Records

SFJV has implemented and maintains procedures for controlling records related to quality activities. The submitted Document Control Plan defines the controls for recording identification, storage, protection, retrieval, retention, and disposition, as well as the applicable quality records required to be maintained.

Records maintained by Document Control demonstrate the achievement of quality objectives and provide objective evidence of the implementation of the Program Wide QAQC Plan. Types of records include but are not limited to:

- Design Reviews
- Drawings and Specifications
- Calculations
- Design Changes
- Request For Information
- Management Reviews
- Procurement and Subcontract Documents
- Procedures and Instructions
- Quality Plans
- Calibration Records
- Audit and Surveillance Reports
- Nonconformance Reports
- Corrective Action Requests
- Inspection and Test Reports
- Batch Plant Tickets
- Concrete Placement Records
- Receipt Inspection Records
- Product Data

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 20 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

- Checklists

7. PRODUCT AND SUBCONTRACT PROCESSES

7.1 Determination of Requirements Related to the Product

SFJV will review the Project Contract to determine all specific LAWA requirements. SFJV management will evaluate these requirements and determine any additional requirements, including statutory and regulatory requirements, that need to be addressed during the Project.

7.2 Review of Requirements Related to the Product

SFJV will ensure all sub-consultant, subcontractor, and supplier contracts or purchase orders are clearly defined and communicate the requirements of the Project Contract with LAWA. Verification of the sub-consultant, subcontractor, or supplier's capabilities will be assessed prior to execution of an agreement and any subsequent changes to agreements will be communicated to those affected parties.

7.3 External Communication

SFJV Project Manager is responsible for ensuring relevant communication from LAWA is processed in a timely manner. LAWA feedback, including complaints, will be addressed by SFJV management in an expeditious manner.

7.4 Purchasing and Subcontracting

SFJV has established procedures for the evaluation and selection of sub-consultants, subcontractors, and suppliers for the Project. These processes stipulate the requirements for contracts for services, supplier requirements, and the preparation of purchase orders. Selection includes an overall ability to supply products and services in accordance with LAWA's Contract requirements.

7.4.1 Purchasing and Subcontracting Process

The qualifications and products of sub-consultants, subcontractors, and suppliers will be examined prior to contracting for services or materials. The review process considers:

- Evaluation and selection of sub-consultants, subcontractors, and suppliers on the basis

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 21 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

of their ability to meet Contract requirements, including quality, safety, and reliability on performance standards.

- Definition of the type and extent of control exercised by SFJV over the sub-consultants, subcontractors, and suppliers will be determined based on a pre-award assessment audit, and the scope of impact the supplied materials or services have on the quality of final product. Where applicable, quality records of prior in-service demonstrated capabilities will be required; of which such records will be maintained.

7.4.2 Purchasing and Subcontracting Information

Purchasing documents will contain information clearly describing the service or material being contracted for, to include:

- The materials to be furnished and scope of services.
- The applicable issue of specifications, drawings process requirements, instructions, and other relevant technical information, including requirements for acceptance of materials, services, procedures, processes, and personnel.
- The quality assurance and control requirements to be used in the inspection and testing of materials and/or performance of services.

The contracts for services or purchase orders will acknowledge the right of LAWA, or their designated representatives, must carry out reviews, examinations, oversight, or inspection and testing of the work at the location where the work is being performed and prior to shipment, or upon receipt, to verify the service or product meets the Contract requirements. Such provisions by LAWA will not absolve the supplier of the responsibility to provide an acceptable service or product.

Construction subcontractors will implement SFJV-approved QAQCP and Quality Program for their respective work. Subconsultants and subcontractors providing significant elements of work may be required to submit their own quality assurance and control program to be approved by SFJV. Requirements for submittal of a separate program will be at the discretion of SFJV.

7.4.3 Verification of Purchased Product

Where storage or off-site production is required, SFJV has the right of access to the facility to review the work in-process, files, and documents of third tier subs' products or services from which the materials/products are made. Access for LAWA personnel to review the same off-site work is also included in the terms and conditions of the subcontractor's contract. Such

SKANSKA | FLATIRON		ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD		Page 22 of 38	
PROJECT-WIDE QAQC PLAN		Rev. #		Date Approved	
		1			

verification by LAWA will not be used by SFJV as evidence of effective quality control.

Whereas SFJV proposes to verify purchased materials or equipment at a subcontractor's or supplier's premises, SFJV will specify acceptable verification arrangements.

8. PRODUCTION AND SERVICE PROVISION

8.1 Control of Production and Service Provision

The construction processes will be performed in a controlled manner and logical sequence by qualified personnel using established procedures to meet the Contract requirements.

SFJV has established the following controls for the design and construction of the ATMP Roadway Improvement Project:

- Activities are planned and scheduled.
- Acceptance criteria are defined.
- Adequate resources (tools, equipment, trained personnel) are available to perform the work.
- The work environment is safe and conforms to recognized health and safety requirements.
- Plans, procedures, and instructions important to achieving the quality objectives are available to the workforce.
- Codes and standards and other reference information needed to plan and execute work properly are available to the workforce.
- When required, licensed and/or certified personnel are assigned to the Project to perform selected activities.
- Management oversight including quality audits and surveillance are performed to monitor the effectiveness of the QAQCP.
- A system of review focuses on evaluating the implementation effectiveness of these control processes.

As discussed in Section 3, a major component aiding in the quality and verification of the work is the ITP, submitted by SFJV and accepted by LAWA prior to initiating work. The ITP will incorporate inspection and testing instructions, procedures, validation requirements, and personnel requirements to meet the Contract requirements. For

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 23 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

inspections and tests on major work activities a checklist will be included in the ITP to facilitate the recording of data or results.

Utilizing the ITP and a PSCQCP, a Pre-Construction Meeting for each new major work activity is conducted and attended by the QCM and/or Lead Inspector directly responsible for the inspection and testing of the work. The Lead Inspectors and LAWA will be notified at least 24 hours in advance of the Pre-Construction Meeting.

Additionally, SFJV will conduct a weekly construction schedule meeting for the upcoming week; using the four-week schedule which is updated weekly. This will provide the QCM and/or Lead Inspectors and LAWA the ability to plan their inspection, testing, and verification activities, helping ensure no LAWA or third-party inspections are missed.

Where inspection or testing is being performed by parties other than SFJV, SFJV will not be relieved of Contract requirements regarding the subject work.

Where performed work is not visible and needs inspection, it may be necessary for SFJV to expose the work. If LAWA directs SFJV to uncover a portion of work for examination, it will be at LAWA's cost if the subject work meets the conformance requirements and adequate notice and opportunity for proper prior examination was given. If the exposed work does not meet the conformance requirements, repairing and recovering the work will be SFJV cost.

8.2 Validation of Processes for Production and Service Provision

The adequacies of the construction processes to be utilized in the ATMP Roadway Improvements Project are time-tested, and the resulting outputs can be verified by subsequent monitoring or measurement. Such processes include, but are not limited to:

Special Processes

- Metal Welding
- Non-destructive
- Examination Coatings
- Heat Treating

Job Control Testing

- Concrete & Asphalt Placement

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD		Page 24 of 38	
PROJECT-WIDE QAQC PLAN		Rev. #	Date Approved
		1	

- Corrosion Control
- Soils
- Bolted Structural Assemblies

The above processes are governed by requirements contained in the Project specifications, Government Laws and Standards, Utility Standards, Industry Standards, and LAWA Contract requirements. Records resulting from the implementation of the construction processes are maintained in accordance with Document Control Procedures.

Test laboratories performing special processes will have the necessary certifications to conduct the work and are subject to review and approval of LAWA prior to initiating work. Credentials of the laboratory's personnel will be maintained at the jobsite, available to LAWA upon request, and maintained in accordance with the submitted Document Control Plan.

8.3 Identification and Traceability

Certain products and materials will be necessary to be identified from receipt through installation and throughout stages of construction. Identification methods are also established to designate the inspection status of work products.

When required, identification and traceability methods include:

- Tagging,
- Markings on Item (care required to ensure marking method is non-destructive),
- Color coding,
- Location (secured area for rejected items),
- Documentation traceable to the item (travelers, inspection reports, notations on drawings, or other documents),
- Entries in computer databases.

Items received without proper documentation will be marked "HOLD" and not progress further in the system until the appropriate traceable records are in hand. Records are maintained, as required, throughout the erection, installation, and use of an item to ensure no nonconforming or defective materials become part of the permanent work.

8.4 LAWA Property

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 25 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

Material and equipment furnished by LAWA may be provided in new or used condition and may lack specified documentation. SFJV anticipates LAWA will furnish documentation in sufficient detail to positively identify and certify all material and equipment furnished by LAWA, or a variance will be issued to cover this deficiency.

Whenever possible, LAWA-furnished material will be inspected and received in the presence of a LAWA representative so any damage, deficiency, or shortage can be verified and documented. Any problems in this area will be immediately brought to the attention of LAWA by written communication through normal channels.

Materials, products, or design outputs provided by LAWA for the project will be stored, maintained, and protected by SFJV according to LAWA specified requirements.

8.5 Preservation of Product

To preserve the integrity, and prevent damage or deterioration to products, SFJV will provide designated secure storage areas (i.e., job site warehouse, lay down areas). During such storage, appropriate methods for preservation, segregation, and identification of products are provided.

SFJV implements product handling, preservation, and storage requirements based on recommendations provided by suppliers. Storage considerations may include:

- Covered or uncovered,
- Environmental controls,
- Preventative maintenance,
- Local heating requirements.

Packaging, handling, identification, and storage are controlled to the extent necessary to ensure conformance to specified requirements. When the product remains in SFJV jurisdictional control (e.g., after testing, prior to turnover) adequate protection will be provided by SFJV.

8.6 Control of Monitoring and Measuring Devices

To conform to Contract requirements, proper quality procedures to ensure tools, gauges, instruments, and other measuring devices are properly maintained, controlled, calibrated, and adjusted will be employed. The laboratory manager, QCM, or a subcontractor's designated QC personnel is responsible for the calibration and maintenance of the measuring and testing equipment. A qualified testing firm calibrates testing equipment and labels the equipment with

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 26 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

the necessary seals or tags recording the date it was calibrated. Documented verification of calibration of test and measuring equipment is retained in the laboratory's files and will be available to SFJV and LAWA. Field and laboratory testing equipment is calibrated prior to first use and recalibrated/reconditioned in accordance with industry standards and Contract requirements.

Where necessary, measuring equipment will be:

- Calibrated or verified at specified intervals, or prior to use, against measurement standards traceable to the National Institute of Standards and Technology (NIST). Where no such standards exist, the basis used for calibration or verification will be recorded,
- Identified with a unique equipment identification number, location, etc.,
- Clearly labeled with the calibration date,
- Safeguarded from adjustments that would invalidate the measurement result,
- Protected from damage and deterioration during handling, maintenance, and storage.

Testing and measuring equipment that has been found to be out-of-tolerance will be documented, removed from the project, or recalibrated. Work built, inspected, or tested with out-of-tolerance equipment will be considered not acceptable to SFJV until the subject work can be verified using other equipment, or the nonconforming equipment can be repaired; both of which actions require the subsequent results being in conformance with the Contract requirements.

8.7 Control of Nonconforming Product

Inspections and testing will be performed during all phases of the work to ensure the work meets and is performed in accordance with the Contract requirements, including specific requirements of LAWA and local jurisdictions. During inspection and testing, it may be determined the work is not in accordance with the approved design and/or contract specifications, or the quality of workmanship has not been produced in the required end product. While anyone participating in the Project may identify a nonconforming item, the Report must be validated by the Quality Control Manager. A Nonconformance Report (NCR) will be used to track in-process deficiencies to ensure the deficient item is completed correctly. Significant aspects of the NCR process include the documentation of the nonconforming work; the designer's review of the recommended disposition; segregation of the nonconforming work; and disposition of the nonconforming work. Proposed resolutions include:

- a reworking to meet specified requirements (rework)
- repair of the work to meet revised specified requirements through a joint agreement (repair).

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 27 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

- acceptance of nonconformance through joint agreement (accept-as-is).
- and removal and replacement of nonconforming work (reject).

Work resolved as “repair” or “accept-as-is” will be approved by the appropriate Design personnel and by LAWA.

Three potential categories of nonconformance on a project typically include:

- Lack of compliance with construction plans or specifications identified during the QC field inspection and test activities,
- Errors found in designs and reports handled through established QC checking and review processes,
- Functional conditions where an item is constructed in accordance with approved plans and procedures, however, the end product does not function as required.

The nonconformance process, as detailed in QP 107; Control of Nonconforming Items, establishes the standard practices for identifying, reporting, evaluating, controlling, and resolving nonconforming work. Each NCR will be assigned an NCR number and logged. The NCR is issued to the Construction Manager and distributed to the Project Manager and LAWA as appropriate by the QCM, for evaluation and development of a proposed resolution.

SFJV will cease work pertaining to the item in question until a proposed resolution has been developed and agreed upon by all parties except where a conditional release is agreed to as described in the QP 107. The Construction Manager will develop a proposed resolution and corrective action to prevent reoccurrence for review and approval.

8.8 Analysis of Data

SFJV collects and analyzes appropriate data to determine the suitability and effectiveness of this QAQCP. During the management review process, as a minimum, the following data is gathered and analyzed:

- LAWA satisfaction/dissatisfaction input,
- LAWA issues raised,
- Conformity of product to requirements,
- Trends of both positive and negative compliance,
- Results of audits, surveillances, and CARs,
- Major supplier and subcontractor quality performance,
- NCR status and trends.

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 28 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

8.9 Improvement

8.9.1 Continual Improvement

SFJV continually improves the effectiveness of this QAQCP using the following processes:

- Lessons learned,
- Management reviews,
- Audits and Surveillances,
- Corrective and preventive actions.

8.9.2 Corrective Action

In the event a nonconforming condition persists without correction, or the severity of the condition meets at least one of the criteria below, the Quality Control Manager issues a Corrective Action Request (CAR) to the appropriate and responsible Manager and the Project Manager. If the Quality Control Manager deems it necessary, he or she will issue a Stop Work Order.

A CAR is issued for varied situations, including serious or repetitive conditions which:

- Threaten the public safety and well-being,
- Could severely damage a major utility,
- Would reduce the soundness, strength, or integrity of a structure,
- Would reduce the life span of the structure or any equipment and systems,
- Have caused the work to deviate from Contract requirements,

Corrective action may require previous work be repaired or if serious enough removed and replaced. This decision rests with the Project Manager and LAWA.

8.9.3 Preventive Action

Preventive actions are established to identify and eliminate the reoccurrence of nonconformances and their potential causes. For preventive action before a nonconforming item occurs, which is ideally the best method to implement preventive action, SFJV will utilize PSCQCPs, ITPs, Pre-Construction meetings, and the Requests for Information (RFI) process to ensure a good understanding of the work to be performed. The process for the development of preventative actions can be seen in QP 105, Corrective and Preventative Action.

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 29 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

8.9.4 Audit and Surveillance

This QAQCP provides for internal quality audits of the SFJV quality system. Qualified personnel independent from staff having direct responsibility for the Project activity being evaluated will perform the audits. All records resulting from implementing the audit and surveillance program are maintained in accordance with the Document Control Procedures.

Audits are:

- Planned, taking into consideration the status and importance of the processes and areas to be audited as well as the results of previous audits,
- Scheduled, with audit notifications defining audit criteria, scope, duration, and team members. Joint audits (LAWA and SFJV) are coordinated with interested stakeholders by the Quality Control Manager.

Audit reports are prepared and distributed to the audited organization. The audited organization shall ensure actions are taken to eliminate nonconformities and their causes. Follow-up activities by SFJV QC staff include verification of corrective action, implementation, and reporting of verification results.

When compared to an audit, surveillance is a less formalized approach for verifying the quality program implementation. Quality Surveillance will be conducted to assess the adequacy of the QAQCP and focus on real-time monitoring of activities. Surveillance reports are prepared and distributed to the audited organization.

Surveillances are:

- Planned, taking into consideration the status and importance of the specific activity to be evaluated as the result of previous surveillances, and areas of concern.
- Unscheduled with the organization being evaluated to monitor the current in-place work activities.

9. MANAGEMENT RESPONSIBILITY

9.1 Management Commitment

SFJV management has developed, implemented, and communicates its quality policy and program, and ensures the availability of qualified staff and resources to continually improve the quality system.

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 30 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

9.2 Customer Focus

Management ensures LAWA requirements are met through:

- Communicating requirements throughout the Project team,
- Focusing on process improvement,
- Soliciting feedback from LAWA through project quality status meetings.

9.3 Quality Policy

SFJV is dedicated to furnishing quality construction services resulting in reliable transit roadways and facilities. All work performed meets or exceeds LAWA requirements, applicable codes, legal requirements, and industry standards as defined in the Contract.

9.4 Quality Management System Objectives

To further ensure Contract requirements are met and SFJV is continually improving its processes, the following measurable objectives have been established, which may be adjusted throughout the Project's life cycle to maintain effectiveness and suitability:

- To develop, implement, and maintain a quality management system conforming to the contract requirements. The measurement criterion includes LAWA approval of the quality management system and compliance with audits and surveillances.
- Review and approval of subcontractor-submitted quality programs, or their acceptance of complying with the SFJV QAQC Program, prior to their starting work. The measurement criteria are zero cases where subcontractors and suppliers start work prior to SFJV approval of their submitted quality program, or their acceptance of SFJV QAQC Program.
- Review and approval of suppliers providing specialty material and/or equipment to project-specific quality and design requirements.
- Cycle time for dispositions on Corrective Action Requests (CARs), Nonconformance Reports (NCRs), and Audit Findings.
- Ensure the timely submittal of Inspection and Test Plans to facilitate the identification of "Hold" points, with an objective of zero missed hold points as the result of untimely customer notification.

The achievement of the QAQCP objectives will be reported on and assessed during SFJV Senior Management reviews.

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 31 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

9.5 Responsibility, LAWA and Communication

SFJV focus on project activities and the ability of the organization to meet Contract requirements, are the responsibility of SFJV management. It is the objective of SFJV management to instill close cooperation between all parties of the Design-Build team in order to achieve uniformity and economy throughout the Project.

9.5.1 Internal Communication

SFJV ensures the processes of the QAQCP and the requirements for its effectiveness are communicated throughout the organization. Typical methods of communicating include:

- Management-led communication in work areas
- Noticeboards
- Electronic media, such as email
- Employee surveys and suggestions
- Plan of the day meetings, toolbox meetings, staff meetings
- Required reading.
- On-the-Job training (OJT), and
- Formal training

Specific plans, procedures, and instructions also convey information about the necessary activities, including internal audits, surveillances, and management reviews. Feedback from LAWA and other Project stakeholders is also disseminated to relevant groups and individuals within LAWA.

9.6 Management Review

SFJV Senior Management reviews the performance of the QAQCP to ensure its suitability, adequacy, and effectiveness. The purpose of the review is to assess opportunities for improvement and the need for changes within the quality system, including the policy and objectives.

Action items resulting from reviews are tracked and followed up to ensure satisfactory closure. Reviews are conducted in accordance with the corresponding procedure within the QAQC Program and records produced because of these reviews provide objective evidence of the QAQCP process. Records produced from the Management Review process are maintained in accordance with Section 3.4. Control of Records.

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 32 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

9.6.1 Review Input

Inputs to management reviews include:

- Status of action items identified at previous quality system review meetings.
- Results of Quality System Audits and Surveillance
- Corrective Action Requests
- Results of Agency and/or third party audits, surveillances, or reviews
- Nonconformance Reports
- Implementation of the quality program by Subcontractors
- Training activities
- Identification of any adverse quality trends
- QAQC Program procedures development
- Summary of overall assessment regarding the general adequacy and effectiveness of the quality management system
- LAWA feedback

9.6.2 Review Output

Outputs from the management review may include decisions and actions related to:

- Improvement of the effectiveness of the QAQCP and its processes.
- Improvement of the product related to LAWA requirements.
- Resource needs.
- Performance improvement objectives for the Project organization
- Loss prevention and mitigation plans for identified risks.
- Information for strategic quality planning for the future needs of the Project organization.

10. RESOURCE MANAGEMENT

10.1 Provision of Resources

SFJV Project Manager and Executive Committee are responsible for assessing SFJV needs and allocating resources in a timely manner to implement and improve the QA/QC Program.

The resources needed to implement the QAQC Program include all human, physical, and

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 33 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

financial resources needed by SFJV to function effectively. Careful planning and consideration are given to:

- Effective, efficient, and timely provision of resources in relation to opportunities and constraints
- Resources and mechanisms to encourage innovative continual improvement.
- Organizational structures, including Project off-site support.
- Information management and technology
- Enhancement of leadership skills and profiles for future staffing
- Planning for future resource needs

Managers and supervisors of the work are also responsible for determining needs and obtaining competent staff to accomplish their objectives. If it is determined additional resources are needed, the request is made through the Project's chain of command as shown in the Project Organizational Chart.

SFJV is committed to providing adequate resources for:

- Training, if necessary, and qualification of personnel
- Subcontractor and Supplier oversight and verifications
- Performing and managing work or activities
- Verifying the acceptability of work or activities such as reviews, inspections, tests, audits, and surveillances.

10.2 Human Resources

SFJV management is responsible for authorizing only personnel competent on the basis of education, training, skills and experience for assignment to the Project.

To aid in achieving the Project objectives, SFJV will encourage the involvement and development of its people by:

- Providing a safe and secure work environment
- Clearly defining responsibilities and authorities
- Facilitating open, two-way communication
- Ensuring effective teamwork

10.2.1 Competence, Training, and Awareness

Based on the prior review of the qualifications of personnel selected to fill roles, individuals on

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 34 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

SFJV's team are not expected to require significant additional training to function effectively. As stated in Section 2.1, the Quality Control Manager (QCM), Lead Inspector, and the Design Quality Manager are those individuals whose resumes have been submitted and approved by LAWA. Subsequent records documenting certification of additional quality personnel will be maintained and/or submitted to LAWA as required.

SFJV Quality Staff and the Independent Test Laboratory will staff inspectors and technicians on an as-needed basis. The proposed SFJV Quality and Independent Test Laboratory staffing plan includes Lead Inspectors and sufficient full-time inspectors to adequately inspect and accept the work.

Initially, the inspection staff will consist of individuals with civil, soil, concrete, asphalt, and utility relocation backgrounds and certifications (e.g., ACI, ICC, AWS, etc.). As the work progresses into other disciplines, inspectors with appropriate qualifications will be provided. In some instances, for specialty type work (e.g., water, communication, power, etc.) SFJV inspectors will work closely with a subcontractor or supplier and oversee a required subcontractor's or supplier's inspectors to verify compliance with the Contract requirements and the Authority Having Jurisdiction.

10.3 Infrastructure

SFJV provides a work environment suitable to satisfy Project requirements. SFJV management determines, provides, and maintains the infrastructure needed to facilitate the work and achieve its quality objectives. Infrastructure includes:

- Buildings, workspace, acceptable work environment, and associated utilities
- Process equipment (both hardware and software)
- Supporting services (such as administrative, transportation, electric power, communication, security)

10.4 Work Environment

Appropriate work environments will be established and maintained to conform to applicable Codes, Standards, and Contract requirements. Creation of a suitable work environment includes consideration of:

- Ergonomics
- Workplace locations

PROJECT-WIDE QAQC PLAN

Rev. #

Date Approved

1

- Safe and secure facilities for personnel
- Heat, humidity, light, airflow
- Hygiene, cleanliness, and mitigation of noise, vibration, and pollution

LAWA and Agencies having jurisdiction will be given access to wherever work is performed under the Contract to conduct audits, inspections, and tests to verify compliance with Contract requirements. Audits, inspections, and tests conducted by LAWA, and other Agencies will not relieve SFJV of responsibility to ensure Contract requirements are met.

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD		Page 36 of 38	
PROJECT-WIDE QAQC PLAN		Rev. #	Date Approved
		1	

APPENDIX 1 – QUALITY PROCEDURES

NUMBER	TITLE
QP 101	DEVELOPING PROJECT QUALITY PROCEDURES
QP 102	QUALITY MANAGEMENT SYSTEM REVIEW
QP 103	QUALITY AUDIT SYSTEM
QP 104	QUALITY SURVEILLANCE
QP 105	CORRECTIVE AND PREVENTATIVE ACTION
QP 106	QUALITY INSPECTION AND VERIFICATION
QP 107	CONTROL OF NONCONFORMING ITEMS
QP 108	PROJECT SPECIFIC CONSTRUCTION QC PLAN
QP 109	INSPECTION AND TEST PLANS
QP 110	QUALITY STOP WORK ORDER
QP 111	QUALITY TRAINING
QP 112	CONTROL OF MEASUREMENT AND TEST EQUIPMENT
QP 113	PROJECT CLOSEOUT

SKANSKA | FLATIRON		ATMP Roadway Improvements Project – DESIGN-BUILD	Quality Procedure QP 101	
DEVELOPING QUALITY PROCEDURES			Rev. #	Date Approved
			0	

1.0 PURPOSE/SCOPE

This procedure describes the requirements and responsibilities for initiating, preparing, approving, issuing, and revising the SFJV Quality Procedures (QPs) for the ATMP Roadway Improvement Project – DESIGN-BUILD.

2.0 DEFINITIONS

Process	A set of interrelated or interacting activities which transform inputs into outputs
Quality Procedures	Quality related procedures that implement the quality process requirements of the Contractor Quality Assurance Quality Control Plan

3.0 REFERENCES

3.1 The SFJV Project Wide QAQC Plan

4.0 PROCEDURE

4.1 General

A set of procedures developed for SFJV to use in the administration of related Quality Processes.

4.2 Format

All QPs will be prepared using the format shown below. Any sections not used will be noted with the word "None."

- 1.0 Purpose and Scope** – Briefly states the intent and explains the boundaries of the procedure by answering why the procedure exists and stating to whom or what the procedure applies.

- 2.0 Definitions** – Defines any special terms pertaining to the subject matter of a procedure.
- 3.0 References** – Identifies by title and document number (if applicable) only the references required to permit implementation of the procedure (does not use revision dates or numbers).
- 4.0 Procedures** – Delineates the actions required to accomplish the purpose of a procedure within the scope and uses the references as a background by stating, “who” does “what” “when”.
- 5.0 Project Records** – Provides general information regarding forms or documents generated because of the procedure. These forms or documents provide evidence that requirements of the procedure have been accomplished and verified and provides information regarding retention of those documents.
- 6.0 Attachments** – Lists any forms or exhibits used to request a service or to record an action cited in the procedure.

4.3 Numbering

The Quality Manager (QM) assigns a number to identify each procedure. The numbering sequence will be Quality Procedures (QP) followed by a three digit sequential number.

4.4 Initiation

The Project Manager assigns the QM responsibility for determining the need for and development of project Quality Procedures.

The QM, working with representative management and staff, assists in preparing required procedures.

4.5 Approval

Prepared quality procedures are approved by the QM and the Project Manager as indicated on the Quality Procedure Manual Table of Contents.

4.6 Issuance

The QM provides the approved QPs to Document Control for distribution. All QPs together shall become the Quality Procedure Manual, with a Table of Contents indicating current QP revision numbers.

4.7 Employee Initiated Revisions

Any employee of the SFJV may mark up a copy of any QP with suggested revisions and send it to the QM.

The QM evaluates the suggestion(s) and decides if the procedure should be revised; the QM then informs the employee of the disposition of the suggested revision. Any QP revised because of the suggestion is properly approved and issued per the Approval and Issuance Sections of this procedure.

4.8 Revisions by Quality Manager

The QM revises quality procedures to reflect current management policies or the Client's Contract requirements and review comments to the QPs, and ensures revised procedures are properly approved and issued per the Approval and Issuance Sections of this procedure. Also, the QP Manual Table of Contents will be updated to reflect current revision numbers of each QP.

5.0 PROJECT RECORDS

Copies of Project Quality Procedures are maintained in the project files. After project completion they are processed in accordance with Document Control procedures.

6.0 ATTACHMENTS

None

SKANSKA | FLATIRON ATMP Roadway Improvements Project – DESIGN-BUILD	Quality Procedure QP 102	
QUALITY MANAGEMENT SYSTEM REVIEW	Rev. #	Date Approved
	0	

1.0 PURPOSE/SCOPE

This procedure describes the requirements and responsibilities for periodic management reviews to the SFJV Quality Management System (QMS), to ensure its continued suitability, adequacy, and effectiveness.

2.0 DEFINITIONS

Management Review Team	Members of the SFJV Senior Management Staff
Quality Management System	The organizational structure, roles and responsibilities, procedures, processes, and resources for implementing the Project Wide QAQC Plan.
Quality Management System Review	A formal review by the Skanska Management of the suitability, adequacy, and continued effectiveness of the SFJV Quality Management System (e.g., policies, objectives, procedures, instructions).

3.0 REFERENCES

- 3.1 SFJV Project Wide QAQC Plan
- 3.2 QP 103; Quality System Audit
- 3.3 QP 104; Surveillances
- 3.4 QP 105; Corrective and Preventive Action

4.0 PROCEDURE

4.1 General

This procedure describes the processes and responsibilities for collecting, categorizing, summarizing, evaluating, and reporting quality trends based on results of Quality Control Inspections, Quality Audits and Surveillances, and any other documented nonconforming or indeterminate conditions. Relevant data will be communicated to the Management Review Team. Appropriate corrective actions will be taken when negative trends are noted.

4.2 Responsibilities

4.2.1 The Project Manager shall be responsible for:

- Scheduling management reviews,
- Providing necessary resources,
- Selecting senior management staff and others to serve on the Management Review Team,
- Responding to all Management Review Team reported recommendations.

4.2.2 The Quality Manager shall be responsible for:

- Preparing a checklist of items for review,
- Ensuring all Management Review Team members are familiar with and understand the review process,
- Preparing meeting minutes of the management review, and providing these minutes to the Project Manager, the SFJV Management Review Team, the SFJV Executive Committee members and Document Control,
- Verifying the Project Manager responses to the recommendations made by the Management Review Team, and any recommended changes are implemented,
- Resolving with the Project Manager any responses conflicting with the quality policy or the Contract requirements,
- Documenting resolutions of each recommendation.

4.2.3 The Management Review Team shall be responsible:

- To attend management review meetings and participate in making recommendations for changes and/or required corrective actions.

QUALITY MANAGEMENT SYSTEM REVIEW	QP 102; Rev. 0
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Quality Management System elements to be discussed may include agenda items from the following list as appropriate:

- Status of action items identified at previous quality system review meetings,
- Results of Internal Audits and Surveillances,
- Corrective Actions Requests,
- Results of third party Audits, Surveillances or reviews,
- Construction Nonconformance Reports,
- Implementation of QMS by Subcontractors,
- Training activities,
- Identification of any adverse quality trends,
- Quality procedure development activities,
- Summary of an overall assessment regarding the general adequacy and effectiveness of the quality management system.

5.0 ATTACHMENTS

5.1 Form QP 102.01; Quality Management System Review Checklist – Sample

Item #	Assessed Item	Assessment Results & Recommendations	Corrective Action Completed
1	Previous QMS review results.		
2	Review implementation of QP 103; Quality System Audit and QP 104; Quality Surveillances for: a. Types of findings, b. Frequency of findings, c. Severity of findings, d. Adequacy of responses, e. Response time, f. Planned corrective actions, g. Actual corrective actions, h. Timeliness of corrective action completion.		
3	Review implementation of QP 105; Corrective and Preventive Action.		
4	Review results of third-party Audits, Surveillances or reviews.		
5	Review Construction Nonconformance Reports.		
6	Review timeliness of corrective action responses and completion of implementation.		

Item #	Assessed Item	Assessment Results & Recommendations	Corrective Action Completed
7	Review subcontractor & supplier QMS for: A. Approval status B. Quality of plan implementation		
8	Review training activities.		
9	Review identification of any adverse quality trends.		
10	Review quality procedures development activities.		
11	Summary of an overall assessment regarding the general adequacy and effectiveness of the quality management system.		

SKANSKA | FLATIRON ATMP Roadway Improvements Project – DESIGN-BUILD	Quality Procedure QP 103	
QUALITY AUDIT SYSTEM	Rev. #	Date Approved
	0	

1.0 PURPOSE/SCOPE

This procedure describes the requirements and responsibilities for performing audits of the Quality Management System and for resolving any nonconformances detected during reviews. This procedure applies to all Project activities.

2.0 DEFINITIONS

Auditor	A technical specialist, management representative, or other individual performing audit activities under the direction of a lead auditor.
Audit Checklist	A tool used to identify requirements to be reviewed during the audit.
Audit Finding	Results identified during an audit, which affect implementation and/or documentation of contract, quality system, and/or associated procedures.
Audit Plan	A document prepared to instruct the audit team members. The plan identifies the audit scope, objectives, audit team members, organization being audited, audit time frame, and any other pertinent information necessary for the audit.
Audit Schedule	A document issued to identify planned audits. The schedule may be revised, updated, and supplemented as necessary to provide adequate coverage.
Conditions Adverse to Quality	An all-inclusive term used in reference to any of the following: errors, omissions, failures, malfunctions, deficiencies, defective items, and audit and surveillance non-conformances.
Corrective Action Request (CAR)	Form used for documenting and closing audit findings.
External Audit	Audits of Suppliers and Subcontractors.
Final Audit Report	A formal report which provides a general narrative and identifies all Audit Findings and recommendations.
Internal Audit	Audits of activities performed by the SFJV.

Quality Audit System	QP 103; Rev. 0
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Lead Auditor	An individual qualified by the Quality Manager to perform, direct, coordinate, and document audit activities.
Observation	Comments, concerns, suggestions and/or recommendations for the benefit of the auditee; opportunities for improvement; situations with potential to become nonconformances.
Pre-Audit Meeting	A meeting of audit team members and management of the audited area, held prior to the start of the audit, to review the audit plan and coordinate specific audit details.
Post-Audit Meeting	A meeting of audit team members and management of audited area, held to review audit results. The validity of Audit Findings is agreed to by applicable parties prior to adjournment of the meeting.
Quality Audit	A systematic, independent documented examination to determine whether quality activities and corresponding results comply with the applicable requirements.
Significant Conditions Adverse to Quality	A condition, which if not corrected, could have a serious adverse effect on safety or conformance with the quality system and/or Project requirements. A Significant Condition Adverse to Quality frequently involves a situation where the condition may reoccur which therefore requires measures to preclude repetition of the condition.

3.0 REFERENCES

3.1 The SFJV Project Wide QAQC Plan

3.2 QP 105; Corrective and Preventive Action

4.0 PROCEDURE

4.1 General

Quality Management System audits are performed by qualified personnel, independent of those having direct responsibility for the activity being audited, assigned or selected by the Quality Manager (QM). The Lead Auditor will be certified in accordance with this procedure.

4.2 Qualification of Lead Auditor

An individual is qualified to be a Lead Auditor when their qualifications have been reviewed and approved by the Quality Manager.

The Quality Manager:

- Reviews Lead Auditor candidate qualifications,
- Approves Lead Auditor as appropriate,
- Documents Lead Auditor approval,
- Reviews Lead Auditor qualifications annually.

4.3 Conducting the Audit

A brief pre-audit meeting with the management of the auditee will be held to discuss the scope of the Audit and Audit process.

Audits will be conducted using the applicable documents which delineate relevant requirements through interviews and/or examinations of objective evidence. Checklist(s) shall be used during this process.

After the investigative phase of the audit, and prior to the presentation of audit results to the auditee(s), the Auditor will review and evaluate the results. An Audit Finding the Lead Auditor determines is a "Significant Condition Adverse to Quality" will be documented on a Corrective Action Report, as defined in Reference 3.2. Audit Findings determined not to be a "Significant Condition Adverse to Quality" will be considered an Observation within the audit report and not require a response from the auditee. Observations are meant to identify areas needing improvement, which could cause a potential nonconformance. Any other Observations the Auditor(s) intend to include in the audit report shall also be documented.

A post audit meeting will be held by the Lead Auditor, Audit team members, and those audited. An objective summary of the audit will be presented outlining the audit results for discussion, to avoid any misunderstanding.

A Final Audit Report will be issued to the audited group.

4.4 Responsibilities

The QM shall be responsible for the following:

- Approves personnel qualified to serve as Lead Auditor,
- Assigns Lead Auditor and Auditors to perform audits,
- Audit plan and checklist preparation,
- Conducts pre-audit meeting,
- Conducts or supervises the audits and issues CARs where necessary,
- Conducts post-audit meeting,
- Preparing and issuing audit reports,
- Verifies corrective action establishment and implementation,
- Following up and closing out CARs/Audit Reports,
- Ensuring relevant records generated by this procedure are provided to Document Control.

Management of audited area shall be responsible for:

- Attending pre-audit meeting,
- Accommodating audit team needs by providing facilities, personnel and documentation as required,
- Attending post-audit meeting,
- Providing responses to audit findings and any CARs by the scheduled completion date(s),
- Implementing appropriate corrective/preventive action(s) so the CARs can be closed,
- Notifying the QM when corrective/preventive actions (s) have been completed,

5.0 ATTACHMENTS

- 5.1 Form QP 103.01; Quality Audit Plan**
- 5.2 Form QP 103.02; Quality Audit Checklist**
- 5.3 Form QP 103.03; Quality Audit Log**



ATMP Roadway Improvement
Project – DESIGN-
BUILD

QUALITY AUDIT PLAN

AUDITED ORGANIZATION AND DEPARTMENT:		AUDIT NO.:
AUDITOR:		DATES:
ADDRESS:		
POINT OF CONTACT:		
SUBJECT:		
GOVERNING DOCUMENTS:		REVISION
PREPARED BY:		DATE:
APPROVED BY:		DATE:

Form QP 103.01

SKANSKA FLATIRON

ATMP Roadway Improvements
Project – DESIGN-
BUILD

QUALITY AUDIT CHECKLIST

AUDITED ORGANIZATION AND DEPARTMENT: _____

AUDIT NO. _____

POINT OF CONTACT: _____

DATE: _____

ITEM NO.	REF.	REQUIREMENT (AUDIT ELEMENT)	VERIFY METHOD ¹	DOCUMENTS REVIEWED/DEFICIENCY OR COMPLIANCE INFORMATION NOTED	RESULT ²	AUDITOR INITIALS

Form QP 103.02

1. VERIFY METHOD: D = Document Review, I = Interview, P = Procedure(s)
2. RESULT: F = Finding (Corrective Action Required); O = Observation, S = Satisfactory

[illegible]

SKANSKA | FLATIRON ATMP Roadway Improvements Project – DESIGN-BUILD	Quality Procedure QP 104	
QUALITY SURVEILLANCE	Rev. #	Date Approved
	0	

1.0 PURPOSE/SCOPE

This procedure describes the requirements and responsibilities for performing Surveillances of the Contractor's and Subcontractor's work processes and for resolving any deficiencies during reviews.

2.0 DEFINITIONS

Conditions Adverse to Quality	An all-inclusive term used in reference to any of the following: errors, omissions, failures, malfunctions, deficiencies, defective items, and audit and surveillance non-conformances.
Quality Surveillance	A systematic in-process review of internal or subcontract work activities. Surveillance is not intended to be all encompassing, but rather a detailed review of a process for conformance with specific documented requirements of the quality system.
Significant Conditions Adverse to Quality	A condition, which if not corrected, could have a serious adverse effect on safety or conformance with the quality system and/or Project requirements. A Significant Condition Adverse to Quality frequently involves a situation where the condition may reoccur, which therefore, requires measures to preclude repetition of the condition.
Surveillance Checklist	A tool used to identify requirements to be reviewed during the Surveillance.
Surveillance Finding	Deficiencies found from a Surveillance which are relevant to quality system procedures or Contract requirements and are verifiable.
Surveillance Personnel	A technical specialist, quality personnel, or other individual performing Surveillance activities under the direction of the Quality Manager
Surveillance Report	A report, in memo form, which provides a general narrative and identifies all Surveillance Findings and recommendations.

3.0 REFERENCES

3.1 The SFJV Project Wide QAQC Plan

3.2 QP 105; Corrective and Preventative Action

4.0 PROCEDURE

4.1 General

Surveillances are performed by qualified personnel, independent of those having direct responsibility for the activity being surveilled, assigned or selected by the Quality Manager.

Conditions adverse to quality noted during a Surveillance are documented as Surveillance Findings. These Findings will be transmitted to the manager of the area being surveilled for corrective action. Surveillance Findings identified as "Significant Conditions Adverse to Quality" will be reported and dispositioned in accordance with the Corrective and Preventative Action procedures identified in Reference 3.2. Findings will require a corrective action response within the time specified in the Corrective Action Request (CAR) document.

4.2 Surveillance Procedure

The QM periodically will initiate a Surveillance using qualified personnel. Surveillances are scheduled and coordinated by the QM, based on the status and importance of the activity to be surveilled as well as the results of previous Surveillances.

The personnel assigned to conduct the Surveillance activity will prepare a checklist, Form QP 104.01, and perform the task as directed by the QM. Both satisfactory conditions and unsatisfactory conditions will be so indicated on the Surveillance Checklist. The Surveillance will be performed through interviews, examination of documentation, and/or observation of activities.

Unsatisfactory conditions identified during the Surveillance, but which are corrected during the Surveillance, are indicated on the completed Surveillance Checklist. Unsatisfactory conditions which cannot be corrected during the course of the Surveillance are documented as unsatisfactory on the Surveillance Checklist and become Surveillance Findings. Any Surveillance Finding the QM determines is a "Significant Condition Adverse to Quality" will be documented on a Corrective Action Report, as defined in Reference 3.2.

The QM reports the results of the Surveillance activity by completing a Surveillance Report and includes the Surveillance Checklist and any CARs.

4.3 Closing Actions

The QM verifies that actions requested on memos, CARs, etc., are closed in accordance with procedures controlling their use.

Surveillance Reports remain open until all corrective action is verified as being completed.

The QM maintains a Surveillance Log Form QP 104.2, which lists the Surveillance Report number, the activity surveyed, report issue date, any CARs issued, and date the Surveillance was closed.

5.0 ATTACHMENTS

5.1 Form QP 104.01; Surveillance Checklist

5.2 Form QP 104.02; Surveillance Log

SKANSKA | FLATIRON		ATMP Roadway Improvements Project – DESIGN- BUILD		SURVEILLANCE CHECKLIST	
Area of Surveillance:				Contract No	Surveillance Report No.
Reference Documents:			Contacts:		
ITEM NO.	ITEM CHECKED	Sat	Un-sat	REMARKS	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
Other Comments:					

Report Number	Issue Date	Description	Findings	CARs	Response Date	Date Closed

SKANSKA | FLATIRON ATMP Roadway Improvements Project – DESIGN-BUILD	Quality Procedure QP 105	
CORRECTIVE AND PREVENTATIVE ACTION	Rev. #	Date Approved
	0	

1.0 PURPOSE/SCOPE

The purpose of this procedure is to promptly identify and take preventative action on conditions adverse to quality. In the case of a “Significant Condition Adverse to Quality,” the cause of the condition shall be determined, and corrective action taken to preclude recurrence. The identification, cause, and corrective action for a “Significant Condition Adverse to Quality” is documented and reported to the appropriate level of Management; follow-up action is taken to verify implementation of corrective action.

This procedure also establishes controls such as work process checks and project surveillances, to identify, document, and report “Conditions Adverse to Quality” and to assure these conditions are corrected to preclude recurrence.

2.0 DEFINITIONS

Preventive Action	Action taken to eliminate the causes of potential deficiencies.
Conditions Adverse to Quality	An all-inclusive term used in reference to any of the following: errors, omissions, failures, malfunctions, deficiencies, defective items, and surveillance non-conformances.
Significant Conditions Adverse to Quality	A condition, which if not corrected, could have a serious adverse effect on safety or conformance with the quality system and/or Project requirements. A Significant Condition Adverse to Quality frequently involves a situation where the condition may reoccur; which therefore requires measures to preclude repetition of the condition.
Corrective Action Request (CAR)	Form used for documenting and closing findings that are determined to be significant conditions adverse to quality

3.0 REFERENCES

3.1 The SFJV Project Wide QAQC Plan

3.2 QP 102; Quality Management System Review

3.3 QP 103; Quality System Audit

3.4 QP 104; Quality Surveillances

3.5 QP 106; Quality Control Verification

3.6 QP 107; Control of Nonconformances

4.0 PROCEDURE

4.1 Corrective Action

Corrective Action Requests (CARs) are used to document, resolve, and close "Significant Conditions Adverse to Quality" that are identified by the Skanska project team members. These conditions may be identified during surveillances, management reviews, trending of nonconformance reports and inspection results.

In the event a "Significant Condition Adverse to Quality" is identified during the course of a surveillance, it will be the QCM or designee's responsibility to document the finding on a CAR, and the cause of the conformity will be documented as identified in Section 4.2 of this procedure.

4.2 Processing of CARs

Any project team member who identifies a suspected significant condition adverse to quality shall initiate a CAR using the Corrective Action Request form.

The Quality Control Manager (QCM) or designee will review the CAR to determine if the described condition is in fact a "Significant Condition Adverse to Quality" and is clearly described. If the QCM agrees the CAR is valid, the QCM assigns a CAR number, signs and dates the CAR, and sends it to the responsible manager.

The responsible manager receiving the CAR shall respond by identifying the cause, corrective action, and action to prevent recurrence by the response due date and returns the CAR back to the QCM for approval.

Once the responsible manager obtains the QCM's approval, he or she then proceeds with completing approved corrective action, and actions to prevent recurrence, and notifies the QCM when completed.

The QCM verifies completed actions and completes processing the CAR by sending the closed CAR to Document Control for distribution to management.

4.3 Preventive Action

Skanska performs the following activities in an effort to detect, analyze and eliminate potential cause for nonconformances and “Conditions Adverse to Quality”:

- Quality Management System Reviews,
- Quality Surveillances,
- Use of Construction Quality Work Plans and Pre-Construction Meetings,
- Trending of Nonconformance Reports.

Steps in dealing with problems requiring preventive action and follow-up activities are commensurate with the severity of the potential deficiency. These activities will be reviewed as part of the Management Review process to ensure effectiveness of the actions taken.

5.0 PROJECT RECORDS

Copies of CARs are maintained in the project files. After project completion they are processed in accordance with the Document Control Procedures.

6.0 ATTACHMENTS

6.1 Form QP 105.01; Corrective Action Request Form

6.2 Form QP 105.02; Corrective Action Request Log

CORRECTIVE ACTION REQUEST

CAR NO. _____

DEFICIENCY		
ORGANIZATION:		
DEFICIENCY:		
PERSON CONTACTED:	ORIGINATOR:	DATE:
RESPONSE/CORRECTIVE ACTION		
1. CAUSE:		
2. CORRECTIVE ACTION TAKEN:		
3. ACTION TAKEN TO PREVENT RECURRENCE:		
PERSON RESPONSIBLE FOR CORRECTIVE ACTION:		EXPECTED COMPLETION TIME:
EVALUATION/CLOSEOUT		
REVIEW COMMENTS:		
CLOSEOUT COMMENTS:		
QC MANAGER:		DATE:

Form QP 105.02

SKANSKA | FLATIRON ATMP Roadway Improvements Project – DESIGN-BUILD	Quality Procedure QP 106	
QUALITY INSPECTION AND VERIFICATION	Rev. #	Date Approved
	1	

1.0 PURPOSE/SCOPE

The purpose of this procedure is to establish a consistent and uniform approach to the general duties and responsibilities of the SFJV quality inspectors for performing inspections and documenting inspection results.

The duties and responsibilities contained in these inspection instructions are general in nature and are to be used in conjunction with various detailed inspection and test plans (ITPs), and inspection checklists, developed and issued by the SFJV Quality Department.

2.0 DEFINITIONS

Documentation	Any written or pictorial information describing, defining, specifying, reporting, or certifying activities, requirements, procedures, or results.
Checklist	A form used to clearly document acceptance status of inspection and test attributes.
Construction Work Plan (CWP)	A plan established and approved prior to the start of a major work activity to address all the pertinent aspects required to perform and complete the work in an acceptable manner.
Examination	An element of inspection consisting of investigation of materials, components, supplies, or services to determine conformance to those specified requirements that can be determined by such investigation. Examination is usually nondestructive and includes simple physical manipulation, gauging, and measurement.
Hold Point	Mandatory inspection of critical construction activities that need to be verified by SFJV QC, Client or AHJ (as delineated), prior to continuation of further construction.
Inspector	A qualified person whose duties include the verification of quality related activities or installations or both.

Inspection	A phase of quality that uses examination, surveillance, or verification to establish the conformance of materials, supplies, components, parts, appurtenances, systems, processes, or structures to conform to predetermined quality requirements
Inspection and Test Plan (ITP)	A document that tabulates information on the required tests, inspections, and verifications. This document ensures inspection requirements (inspections, tests, and documentation) are adequately defined and recorded, and are consistent with established requirements.
Monitor	To watch over, observe, or examine an in-process work operation. Results of the observations and examination may be recorded; however, signoff responsibility is not included.
Nonconformance	A deficiency in characteristic, documentation, or procedure that renders the quality of an item unacceptable or indeterminate. Examples of nonconformance include physical defects, test failures, incorrect or inadequate documentation, or deviation from prescribed processing, inspection, or test procedures.
Procedure	A document that specifies or describes how an activity is to be performed. A procedure may include methods to be employed, equipment or materials to be used, and/or a sequence of operations.
Open Item List	A log of in-process work items identified by or to the Skanska QCM, which have potential of becoming nonconformances.
Pre-Construction Meetings	A meeting held prior to the start of a major new construction work activity. The PSQCP is used as the meeting agenda. These are attended by Construction, Quality and the Client.
Shop Drawing	Drawings, diagrams, schedules, and other data specifically prepared by the design/builder pursuant to the work showing, in detail, the proposed fabrication and assembly of a special component of the work or the installation of a special component of the work.

Submittal	Consists of detailed information provided by the design/builder, based on the design documents, which may consist of working or shop drawings, product data, material certifications, samples, calculations, etc., for review and approval.
Surveillance	A broad term pertaining to, and including, both monitoring and witnessing.
Testing	The determination or verification of the capability of an item to satisfy a set of physical, chemical, environmental, or operating conditions or procedures.
Verification	An act of confirming, substantiating, and assuring that an activity or a condition has been implemented in conformance with the specified requirements.
Witness	To watch over, observe, or examine a specific test or work operation, including signoff responsibility.
Working Drawing	Drawings prepared and submitted, as required, by the design/builder, illustrating work required for construction, but which will not become an integral part of the completed work or project. This includes drawings for temporary structures, such as decking, temporary bulkheads, excavation supports, utility supports, groundwater control, forming, and false work.

3.0 REFERENCES

- 3.1 The SFJV Project Wide QAQC Plan**
- 3.2 QP 107; Control of Nonconformances**
- 3.3 QP 108; Project Specific Quality Control Plans**
- 3.4 QP 109; Inspection and Test Plans**

4.0 PROCEDURE

4.1 General

Prior to any major work activity taking place, three elements of the quality program will be completed:

- Project Specific Quality Control Plans (PSQCPs) shall be developed by Construction Field Engineers and approved by the QCM and the Client. Refer to Reference 3.3 for a further description of PSQCPs.
- Inspection and Test Plans (ITPs) will be developed and approved, with checklists, and become a part of the PSQCP. Refer to Reference 3.4 for a further description of ITPs.
- Pre-Construction Meetings will be held between SFJV and the Client, where the PSQCP will serve as the agenda to discuss the upcoming work activity.

During the construction activity, an Initial Inspection Meeting and Follow-up Inspections will be performed as follows:

- QCM will hold an Initial Inspection Meeting with the contractor or subcontractor supervisor, foreman, QC Inspector, ITL Technician, and LAWA representatives to discuss all aspects of the representative sample of work including establishing a baseline for quality and acceptability.
- Follow-up Inspections will be performed throughout the duration of the construction activity.

Inspectors will be assigned to the Project by the QCM to support ongoing field activities.

The inspectors responsible for work activities will:

- Review and have a thorough understanding of applicable quality procedures and processes
- Review the applicable PSQCP and included ITP with checklists
- Review the applicable design drawings and specifications
- Review applicable approved submittals and shop drawings
- Obtain any required tools to perform inspections

Whenever possible, inspectors will evaluate the work process, as well as the final product/installation for compliance with established acceptance criteria.

While monitoring the work process, the inspector will:

- Monitor all assigned work activities and perform required inspections

- Notify the SFJV construction supervision and the QCM of any activity that may result in unacceptable results
- Witness and document testing as required
- Document observations and notifications given to the Skanska construction staff and field engineers in their Daily Inspection Reports (DIRs)
- Complete applicable checklists as work is completed
- Notify the Skanska construction supervision of any unsafe conditions that are noted
- Identify any noted conflicts between the design requirements and/or existing conditions that may require a clarification or change

The inspector will perform inspections on in-process and completed installations in accordance with applicable design documents, approved submittals, and Quality Procedures. These inspections and their results will be documented in DIRs and on applicable checklists.

Where a nonconforming condition is identified, and the specific phase of work in question is no longer in-process, the inspector shall initiate a Nonconformance Report (NCR), Form QP 107.01; refer to Reference 3.2 for a further description of NCRs. For work still in-process, which may become nonconforming if not corrected, the Open Item List will be used for tracking items that are not resolved within a day or two using Form 106.02. The Open Item List is controlled and distributed by the SFJV QCM, as requested.

4.2 Recording Data

Daily Inspection Reports: The inspector is responsible for accurately recording inspection results in a way that will make them legible and understandable at a later time. Note that the DIR (Form QP 106.01) consists of multiple pages; the first page should always be used, along with any combination of the remaining pages as needed to document inspection results.

As a minimum, inspection information recorded on the DIR shall clearly identify:

- Contract name,
- Day and date of inspection,
- Skanska or subcontractor performing the work,
- Item(s) inspected and tested with applicable specification, drawings and submittals identified
- Acceptance status of inspections performed, clearly identified with deficiencies and/or NCRs noted where required,
- Location (design package, segment, stationing, room number, gridline, or other specific location designation as applicable),
- Inspector's name, both printed and signed, and date of signature,
- Information related to safety or accidents.

Checklists: It is intended that most acceptance inspections will be recorded on checklists. This helps ensure all applicable inspection attributes are evaluated and then clearly annotated as to their acceptance status; such checklists will be part of each ITP.

In addition to the inspector performing their inspections, Foremen and/or the responsible Field Engineer are required to inspect their crew's work and document their acceptance on the checklists. Acceptance shall be indicated of an inspection attribute on the checklist by placing their initials in the "Accept" column. Inspection attributes listed on the checklist not applicable at the time of inspection shall be marked "N/A." Both the Foreman or Field Engineer, and the Inspector, shall also provide his or her signature at the space provided at the bottom of the checklist.

The original completed checklist shall be attached to the Inspector's DIR.

4.3 Test Reports

Various organizations and individuals will perform testing. Copies of the test reports/results will be obtained when practical and attached to the inspectors DIR. The SFJV Independent Testing Laboratory shall submit their Test Reports to SFJV weekly as a minimum or as directed by the QCM.

4.4 Changes/Corrections

Changes or corrections made to inspection documents will be made by a single line-through with initials and a date. No white out, correction tape, etc., will be used on the Quality Records/inspection documents.

4.5 Responsibilities

The SFJV QCM has overall responsibility for implementation of the Quality Program and assuring an Inspection and Test Plan (ITP) has been established for each PSQCP that addresses construction installation. These ITPs will identify all significant inspection and testing attributes with acceptance criteria. The ITP may include a checklist to document the inspection and test results. The QCM, or designee, attends all Pre-Construction Meetings.

Inspectors are responsible for observing/inspecting all assigned work activities through examination, surveillance, and verification. They are also responsible for documenting the results of those observations as they relate to the acceptance criteria defined in the design documents. The inspector is responsible for understanding the design requirements unique to the inspector's assigned area of responsibility.

Technicians from independent testing laboratories will be utilized to supplement the inspection staff to perform specific inspections and required testing. They are responsible for documenting the results of their observations and test results as they relate to the acceptance criteria defined in the design documents. The technician is responsible for understanding the design requirements unique to the technician's assigned area of responsibility. Note that references to inspectors in this and other procedures are intended to include technicians in defining their responsibilities and duties.

Safety awareness is a responsibility for all inspection staff. Each inspector or technician will be familiar with the general safety requirements outlined in the SFJV Safety Manual. Each inspector will report incidents of unsafe conditions or practices to the SFJV supervision, as well as to the Safety Manager, if warranted.

5.0 PROJECT RECORDS

Copies of Quality Verification documentation are maintained in the project files. After project completion they are processed in accordance with the Document Control Procedures.

6.0 ATTACHMENTS

6.1 Form QP 106.01; Daily Inspection Report

6.2 Form QP 106.02; Open Item List

	ATMP Roadway Improvements Project – DESIGN-BUILD	SKANSKA FLATIRON
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Client: Attention: Title: Cc:) Start Time: </div> <div style="width: 45%;"> Report Date: Permit #: Project #: Project: Address: Inspector: End Time: </div> </div>		
FIELD DATA		
Location:		
Activity:		Weather:
Contractor (Prime/Sub):		Specification No. & Description:
INSPECTIONS/OBSERVATIONS		
Material & Equipment properly stored: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA Quantity of work constructed:		
Work is in conformance with approved submittals, plans and technical specifications: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Testing performed: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Work performed in a safe manner: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA Proper equipment utilization and operation: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Owner' Representation: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Conversations/Instructions given from the Owner (include name):		
Remarks:		
Report Copied to:		

Representative / Client: N/A Date Signed _____

Representative / Inspector: _____

Cert No:
N/A

SKANSKA | FLATIRON	ATMP Roadway Improvements Project – DESIGN-BUILD	DAILY INSPECTION REPORT
---------------------------	---	--------------------------------

Reviewed by QC Manager <i>(Signature & Date)</i> : Click or tap here to enter text.	
Name: Click or tap here to enter text.	Signature: Click or tap here to enter text.
Position: Click or tap here to enter text.	Weather: Click or tap here to enter text.
Work Shift & Date: Click or tap here to enter text.	Start & End Time: Click or tap here to enter text.

Inspections/Observations:

Location: Click or tap here to enter text.	Contractor (Prime/Sub): Click or tap here to enter text.
Activity: Click or tap here to enter text.	Specification No. & Description: Click or tap here to enter text.
Summary:	
Material & Equipment Properly Stored: Yes: <input type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>	Quantity of work constructed: Click here to enter text.
Work is in conformance with approved submittals, plans and technical specifications: Yes: <input type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>	
Testing Performed: Yes: <input type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>	Attached Forms: Click here to enter text.
Work performed in a safe manner: Yes: <input type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>	Proper utilization and operation of equipment: Yes: <input type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>
Owner' Representation: Yes: <input type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/> Conversations/Instructions given from the Owner (include name): Click or tap here to enter text.	

Photographic Attachment

Illustration of the work observed and performed in the Daily Inspection Report.

Name: Click or tap here to enter text.**Work Shift & Date:** Click or tap here to enter text.

Photo 1: Click or tap here to enter text.	Photo 2: Click or tap here to enter text.
Photo 3: Click or tap here to enter text.	Photo 4: Click or tap here to enter text.

OPEN IT. LIST

22

SKANSKA | FLATIRON

Closed?	Item No.	Location	Type of Work	Description	Date Noted	Noted By	Responsibility	Date Resolved	Days Open	Work Package	Verified By	Remarks
	1											
	2											
	3											
	4											
	5											
	6											
	7											
	8											
	9											
	10											
	11											
	12											
	13											
	14											

SKANSKA | FLATIRON ATMP Roadway Improvements Project – DESIGN- BUILD	Quality Procedure QP 107	
CONTROL OF NONCONFORMING ITEMS	Rev. #	Date Approved
	0	

1.0 PURPOSE/SCOPE

This procedure describes the identification and control of products that do not conform to specified requirements and what will be done to prevent their inadvertent use or installation. This procedure also applies for deficiencies identified during material receipt inspection, and for deficiencies identified during off-site fabrication and/or manufacturing. All subcontractor nonconformances shall be processed in accordance with this procedure and through the SFJV Quality Organization. However, suppliers and fabricators with approved quality programs may use their own nonconformance process for self-identified nonconformances.

2.0 DEFINITIONS

Conformance	An affirmative indication or judgment that the condition of an item meets the requirements of relevant specifications, Contract, and/or regulations.
Corrective Action	Documented commitment of specific action planned or being implemented to resolve a known condition or conditions that adversely affect quality. Corrective action must address both remedial action to correct the known discrepancy and action to prevent recurrence based on the identified root cause.
Corrective Action Request (CAR)	Form used for documenting and closing surveillance, inspection, and audit findings.
Disposition	The statement describing the manner in which a deficiency or nonconformance is to be resolved.
Hold Tag	A status tag used to prevent a nonconforming item from being incorporated into the work. Hold Tags may only be removed by a QC representative. <i><u>Note: Any willful removal or by-passing of a Hold Tag may result in disciplinary action of up to and including removal from the project for the individuals responsible for the violation.</u></i>
Nonconformance	A deficiency in characteristic, documentation, or procedure that renders the quality of an item unacceptable or indeterminate. Examples of nonconformance include physical defects, test

failures, incorrect or inadequate documentation, or deviation from prescribed processing, inspection, or test procedures.

Nonconformance Report (NCR)

A form used to identify a nonconforming condition and to document a proposed corrective action for consideration by the appropriate organization(s), i.e. Client, Design Engineer, Quality Control, Safety, etc.

Reject

A disposition that indicates an item is unsuitable for its intended purpose and economically or physically incapable of being reworked or repaired.

Repair

A disposition that will result in making an item acceptable for its intended use, even though it is not restored to a condition which meets all specification requirements. Repair dispositions require approval by the Design Engineer and the Client.

Rework

A disposition that indicates the nonconformance can be brought into Conformance with the original drawing, specification, etc., requirements through subsequent re-machining, reassembling, reprocessing, reinstallation, or completion of the required operations.

Accept As-Is

A disposition that allows the use of an item which does not meet all design requirements when the Design Engineer determines the item will satisfy its intended use. Accept As-Is dispositions require approval by the Design Engineer and the Client.

3.0 REFERENCES

3.1 The SFJV Project Wide QAQC Plan

3.2 QP 105; Corrective and Preventative Action

4.0 PROCEDURE

4.1 Preparing Nonconformance Report

Any employee may initiate a Nonconformance Report (Form QP 107.01) when nonconforming work is found. The employee tags (Hold Tag), segregates, or otherwise identifies the nonconforming work in question to prevent inadvertent use, acceptance, or installation. The

employee then gives the NCR to the Quality Control Manager (QCM) for validation and further processing.

When the QCM determines the proposed NCR is valid, the NCR is assigned a NCR number and is signed and dated by the QCM, with the response due date identified based on current schedule. The QCM then forwards the NCR to the Responsible Party for review and to propose a Recommended Disposition.

Upon return of the Recommended Disposition from the Responsible Party, the Quality Control Manager (QCM) reviews and distributes the NCR to the following individuals for comment and/or approval, as required:

- Client
- Project Manager
- Originator
- Construction Manager
- Document Control

After approval of a Recommended Disposition, any Hold Tag that had been placed is removed by a QC representative from the nonconforming item so that work on the item may proceed. Then the corrective action is carried out and Skanska QC personnel conduct inspections to verify completion in accordance with the NCR instructions. The method of verification and the results of the verification/inspection are documented in the "Closure of NCR" section on Page 2 of the NCR. When all actions are accepted, the QCM signs and dates the "Closure of the NCR."

Detailed instructions for completing the NCR can be found on Pages 3-4 of the NCR Form. Instructions include:

- Initiating an NCR
- Recommended Dispositions
- Disposition Approval
- Closure of NCRs
- Conditional Releases
- Additional Information

4.2 Nonconformance Report Log

The QCM will maintain the current status of all NCRs in a Nonconformance Log. A sequential numbering system for the NCRs will be used continuously throughout the Project.

The QCM will review the NCR Log on a monthly basis to assure prompt closure of outstanding NCRs.

4.3 Closeout and Distribution

After the "Closure of NCR" is complete, copies of the completed NCR will be sent to those individuals on the original NCR distribution list.

4.4 Responsibilities

4.4.1 Quality Control Manager

The QCM is responsible for ensuring compliance with the requirements of this procedure, including:

- Reviewing the nonconformance description for accuracy and completeness
- Validating an NCR is warranted
- Providing a response due date based on current schedule
- Forwarding the NCR to the Responsible Party for proposed response
- Ensuring the corrective action is accomplished in accordance with the corrective action stated through inspections by QC personnel, as required
- Closing the NCR when all corrective actions have been completed and accepted
- Routing the NCR to appropriate individuals for review and approval
- Initiating and coordinating required meetings, reviews, etc., with the Client, Contractor, Engineer, AHJ, or other organizations to resolve the NCR
- Reviewing the approved NCR disposition to verify all nonconforming conditions have been addressed and the NCR disposition identifies the correct status as:
 - ✓ Reject
 - ✓ Rework
 - ✓ Repair
 - ✓ Accept As-Is
- Distributing of NCRs
- Reviewing trends identified in NCRs and determining the need to issue a Corrective Action Request (CAR).
- Maintaining the Nonconformance Report Log (Form QP 107.02),

4.4.2 Responsible Party

The Responsible Party is the entity performing the work in question, and with regards to the NCR process is responsible for:

- Reviewing the nonconforming condition described in the NCR,
- Evaluating the root cause of the nonconforming condition,

- Proposing a method of correcting the nonconforming condition as either "Reject," "Rework," "Repair," or "Accept As-Is."
- Providing sufficient detail required for an accurate interpretation of the corrective action to correct the nonconformance, addressing preventative action to preclude recurrence, and addressing any proposed Conditional Releases.

4.4.3 Project Manager

The Project Manager is responsible for:

- Reviewing the NCRs and concurring or commenting, as appropriate, to the Recommended Disposition,
- If a Conditional Release is proposed, reviewing and approving the justification and limitations of the work,
- Complying with the approved disposition, as appropriate.

4.4.4 Design Engineer

If the Recommended Disposition is "Repair" or "Accept As-Is" the Design Engineer is responsible for ensuring the Contractor's proposed corrective action resolves the nonconformance in an acceptable manner.

4.4.5 Client

The Client is responsible for reviewing NCRs and concurring or commenting as appropriate to Recommended Dispositions of "Repair" or "Accept As-Is."

For any non-conformance documents received from the client, they will follow a similar process and be returned to the client when corrective actions have been completed.

5.0 PROJECT RECORDS

Copies of NCRs and the Nonconformance Report Log are maintained in the project files. After project completion they are processed in accordance with the Document Control procedures.

6.0 ATTACHMENTS

- 6.1 Form QP 107.01; Nonconformance Report**
- 6.2 Form QP 107.02; Nonconformance Report Log**
- 6.3 Nonconformance Report Instructions**

NONCONFORMANCE

Projects - DESIGN-BUILD

REPORT NCR NO. _____

Location:	Originator:		
Supplier/Subcontractor:	Hold Tag Applied:	Yes <input type="checkbox"/>	No <input type="checkbox"/>
P.O. No. or S/C No.:	Date:		
Specification/Rev:	Drawing/Rev:		
Contract Requirement:			
Nonconforming Condition:			
Originator	Signature: _____	Date: _____	
QC Manager	Signature: _____	Date: _____	
Reply requested from:	Reply due date: _____		
RECOMMENDED DISPOSITION			
Cause:	Construction Deviation <input type="checkbox"/>	Subcontractor Deviation <input type="checkbox"/>	Supplier Deviation <input type="checkbox"/>
<input type="checkbox"/> REWORK <input type="checkbox"/> REJECT <input type="checkbox"/> ACCEPT-AS-IS <input type="checkbox"/> REPAIR			
Root cause of the problem and action to prevent recurrence:			
Corrective action to fix the problem:			
Prepared by:	Date:	<input type="checkbox"/> CONDITIONAL RELEASE *	
DISPOSITION APPROVAL			
Approval Comments:			
Project Manager/Date		Design Engineer/Date (For Repair & Accept-As-Is only)	
QC Manager/Date		Client Review/Date (For Repair & Accept-As-Is only)	

(

*See page 2 of 4
Form QP 107.01

Attachment 6.2
ATMP Roadway Improvements
Project – DESIGN-BUILD

[illegible]

NONCONFORMANCE REPORT INSTRUCTIONS

Initiating an NCR

1. Location: Record specific location of the nonconforming item.
2. Originator: Print name of person initiating NCR.
3. Supplier/Subcontractor: Record the name of the organization causing the nonconformance.
4. Purchase Order or Subcontract Number: Record the P. O. number or Subcontract number if the nonconformance was caused by a Supplier or Subcontractor.
5. Date: Record the date the Nonconformance report was initiated.
6. Specification/Rev: Record the specification number and revision.
7. Drawing/Rev: Record the drawing number and revision – design & shop drawings if applicable.
8. Contract Requirement: Describe the requirement as defined by the specification or drawing that is not being complied with.
9. Nonconforming Condition: Describe the nonconforming product and how it deviates from the specification or drawing (add additional pages as required, sketches, pictures, etc.).
10. Check appropriate box for the cause of the deviation; construction, subcontractor or supplier.
11. Originator enters signature and date.
12. QC Manager reviews and enters signature and date for valid NCRs, enters the next consecutive number for the NCR and identifies who is responsible for replying to the NCR and response due date based on current schedule.

Recommended Disposition *(Response, even if it is an interim response, must be returned by the indicated due date.)*

13. Check one of three boxes to identify the type of deviation.
14. Enter root cause of the problem and what action will be taken to prevent recurrence.
15. Provide a detailed description of how to implement the recommended disposition to close the NCR.
16. Check one of the four boxes to describe the action category necessary to close the nonconformance.
 - **Rework** - Action taken on a nonconforming product so that it conforms to specified requirements.
 - **Reject** - Nonconforming product that is returned to the vendor, rejected, or removed from service.
 - **Accept As-Is** - Nonconforming product requires no corrective action before use, but must be technically justified as meeting its intended use. This may require a change in Design Requirements / Quality attributes. An "Accept As-Is" NCR requires review and approval by the Design Engineer and the Client.
 - **Repair** - An action taken on a nonconforming product so it will fulfill the intended usage requirements, although it may not conform to the originally specified requirements. A "Repair" NCR requires review and approval by the Design Engineer and the Client.
17. Provide implementation dates for Preventive and Corrective Actions

18. Check the Conditional Release box if nonconforming product is to be processed further prior to final approval of the recommended disposition and complete steps 26 through 29 of this form.
19. Individual recommending proposed disposition enters signature and date.

Disposition Approval

20. Project Manager signs and dates indicating approval of proposed disposition.
21. For Repair and Accept As-Is NCRs, the responsible Design Engineer signs and dates indicating approval of proposed disposition.
22. QCM signs and dates indicating approval of proposed disposition.
23. For Repair and Accept As-Is NCRs, NCRs are sent to the Client for approval. The Client representative enters signature and date.

Closure of NCR

24. Corrective Actions Complete/NCR Closeout: Add comments, if required.
25. QCM: Signature and date of the QCM verifying corrective action and closeout of the NCR have been completed.

Conditional Release

26. Justification: Describe the facts justifying the conditional release of nonconforming product for use before final approval of the recommended disposition.
27. Limitations/Control: Describe limitations of conditional use of the nonconforming product and associated controls to prevent these limitations from being exceeded.
28. Project Manager: Signature and date of the Project Manager authorizing the Conditional Release of nonconforming product.
29. QCM: Signature and date to indicate concurrence of conditional release conditions.

Additional Information

30. Supplier/Subcontractor Notified: Enter a contact name and the date of notification.
31. Extra Work Order/Backcharge No.: Enter the applicable number, if one is issued, to provide a cross-reference.

SKANSKA | FLATIRON ATMP Roadway Improvements Project – DESIGN- BUILD	Quality Procedure QP 108	
CONSTRUCTION QUALITY CONTROL PLANS AND PRECONSTRUCTION MEETINGS	Rev. #	Date Approved
	1	

1.0 PURPOSE/SCOPE

The purpose of this procedure is to establish a consistent and uniform approach to developing Project Specific Quality Control Plans (PSQCP) for individual work activities. These PSQCPs take a step-by-step look at the requirements needed to accomplish the work, to communicate areas of concern, ensure adequate preparation for the activity, requirements of preconstruction meeting and assist in good coordination with all third-party participants.

All major work activities will have a PSQCP established, which will be reviewed along with agenda and Construction Work Plan (CWP) for preconstruction meetings held prior to the subject work activity beginning. In preparing the PSQCP a series of internal reviews by SFJV QCM and area leads will be conducted, along with the PSQCP submitted to LAWA for approval.

After the Preconstruction Meeting is held, comments will be incorporated into a final PSQCP which will be approved and signed by the Construction Manager or Area Lead and the Quality Control Manager (QCM) then submitted to LAWA for record only.

2.0 DEFINITIONS

Project Specific Quality Control Plans (PSQCP)

The SFJV PSQCP fulfills the requirements of ATMP Roadway Improvements Project Requirements PR13/14

Hold Points

A point at which an inspection activity required by project planning documents shall be performed, and beyond which work may not proceed without release by the designated personnel identified in the project planning documents.

Inspection and Test Plan

A document that tabulates information on the required tests, inspections, and verifications. This document ensures inspection requirements (inspections, tests, and documentation) are adequately defined and recorded, and are consistent with established requirements.

SKANSKA | FLATIRON ATMP Roadway Improvements Project – DESIGN-BUILD	Quality Procedure QP 108	
CONSTRUCTION QUALITY CONTROL PLANS AND PRECONSTRUCTION MEETINGS	Rev. #	Date Approved
	0	

3.1 REFERENCES

3.2 Project Requirements PR13/14

3.3 QP 109; Inspection and Test Plans

4.0 PROCEDURE

4.1 Development of the Project Specific Quality Control Plan

Project Specific Quality Control Plan process will be initiated through an internal PSQCP pre-activity meeting for discussion with the Quality Control Manager and Area Lead. Major discussion points of this meeting include refining the scope of work, sequencing concerns, prerequisite activities, required submittals and inspection/testing requirements.

A draft of the PSQCP is then prepared by Construction Staff which includes, but is not limited to, all the following items:

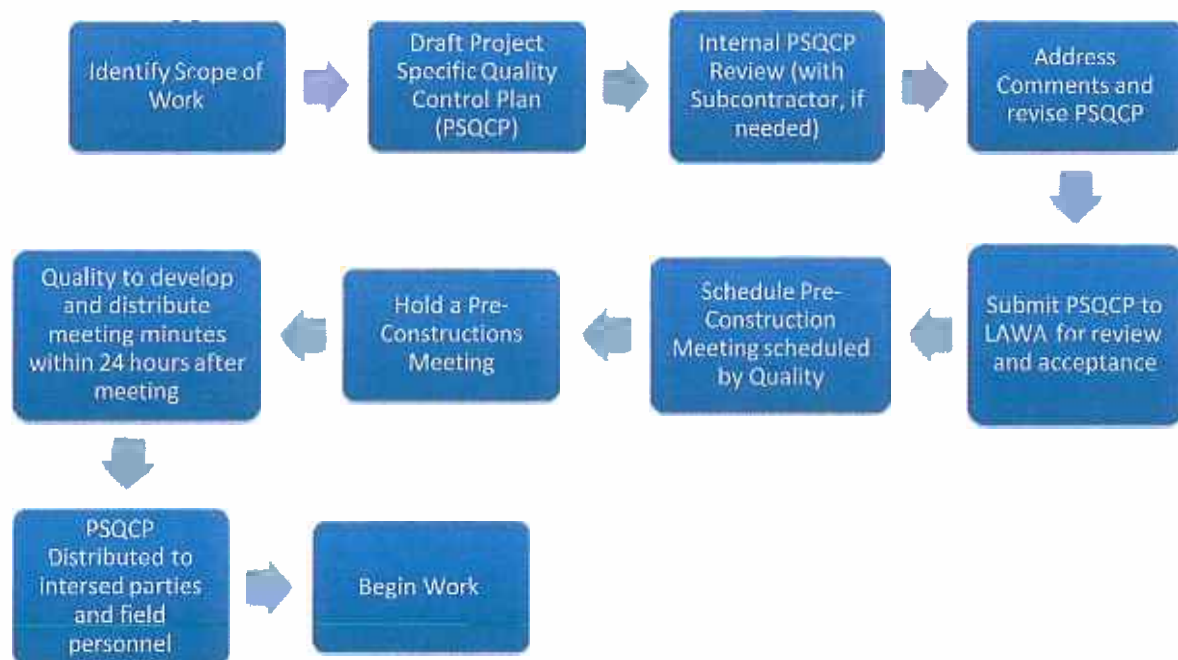
- Description of the Work with step-by-step sequence for the work
- List of prerequisite activities required
- List of applicable design specification Sections
- List of applicable design drawings
- List of RFI's and status
- List of required Submittals and their respective Status
- List of materials to be used
- List of individuals responsible for supervision of the Work, including subcontractor supervision. List includes individuals' positions and phone numbers
- Scheduled start date, work hours, and expected duration
- Completed Inspection and Test Plan including Hold Points
- Competent person forms
- Pothole data sheets

SKANSKA | FLATIRON ATMP Roadway Improvements Project – DESIGN-BUILD	Quality Procedure QP 108	
CONSTRUCTION QUALITY CONTROL PLANS AND PRECONSTRUCTION MEETINGS	Rev. #	Date Approved
	0	

The draft PSQCP is circulated to the responsible area lead, superintendent and Construction Manager for review and comment. After the review is completed, the PSQCP will be revised to address any comments. The PSQCP will be signed by the Construction Manager or area lead and the QC Manager. Submission of the PSQCP to LAWA for review and acceptance will occur prior to the scheduled start of construction activities and a Pre-Construction Meeting will be scheduled. A draft of the PSQCP is then distributed to LAWA for review and comment. LAWA comments are then incorporated into the PSQCP. The PSQCP is then submitted to LAWA for approval, and a preconstruction meeting is scheduled prior to permanent work starting.

Copies of the approved PSQCP are to be distributed and maintained at the Work area for use by the field staff.

4.2 Approval Flow Chart for the Project Specific Quality Control Plan



5.0 Preconstruction Meetings

Prior to starting work, SFJV will hold a preconstruction meeting with LAWA, AHJ's, sub- contractors, Superintendents and Safety. The Preconstruction meeting will be coordinated by Skanska Quality Control Department. The meeting agenda, CWP and PSQCP will be distributed

SKANSKA | FLATIRON ATMP Roadway Improvements Project – DESIGN-BUILD	Quality Procedure QP 108	
CONSTRUCTION QUALITY CONTROL PLANS AND PRECONSTRUCTION MEETINGS	Rev. #	Date Approved
	0	

to all responsible parties prior to start of meeting. During the preconstruction meeting SFJV safety manager will discuss safety, SFJV or subcontractor performing the work will present the Construction Work Plan and schedule, Quality Control will review the PSQCP. Meeting minutes will be recorded and distributed after preconstruction meeting is held.

Attendance sign-in sheets will be used to document all Preconstruction Meetings. Preconstruction meeting sign-in sheets will be retained as a quality record in Procore.

6.0 ATTACHMENTS

Form QP 108.01; Project Specific Quality Control Plans

Form QP 108.02; Pre-construction Meeting Sign in Sheet

SUBJECT:
CHAired BY:
DATE/TIME:
LOCATION:

	NAME (PRINT)	NAME (SIGNATURE)	REPRESENTING	PHONE NO.	EMAIL ADDRESS
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
12					
13					
14					
15					

SKANSKA | FLATIRON ATMP Roadway Improvements Project – DESIGN- BUILD	Quality Procedure QP 109	
INSPECTION AND TEST PLANS	Rev. #	Date Approved
	0	

1.0 PURPOSE/SCOPE

The purpose of this procedure is to establish a system for development and control of Inspection and Test Plans (ITPs) and ensure proper documentation quality procedures have taken place.

The purpose of an ITP is to develop a single document that references all inspection and testing requirements relevant to the work process. The ITP identifies the materials to be inspected and tested, the required frequency, relevant standards, records to be maintained, as well as "Hold Points" required throughout the work.

2.0 DEFINITIONS

Hold Points	A point at which an inspection activity required by project planning documents shall be performed, and beyond which work may not proceed without release by the designated personnel identified in the project planning documents.
Inspection Personnel	The individual(s) responsible for performing required inspections, tests, and verifications.
Nonconformance	A deficiency in characteristic, documentation, or procedure that renders the quality of an item unacceptable or indeterminate. Examples of nonconformance include physical defects, test failures, incorrect or inadequate documentation, or deviation from prescribed processing, inspection, or test procedures.

3.0 REFERENCES

- 3.1 The SFJV Project Wide QAQC Plan
- 3.2 QP 107; Control of Nonconforming Items
- 3.3 QP 108; Construction Quality Control Plans

4.0 PROCEDURE

4.1 Inspection and Test Plan Planning

When inspection and testing is required to support project activities, the Construction Manager will convey the activity scope to QC Personnel for development and inclusion of the QC Inspection and Test Plan into the Project Specific Quality Control Plan, refer to Reference 3.3 for a further description of PSQCP .

ITPs will be developed by SFJV QC Personnel, and will include information from the following sources:

- Contract Requirements
- Applicable Specification(s)
- Drawings
- Design Criteria Documents
- Codes, Standards, Permits, etc.

The ITPs will include:

- Inspection/Test Activity Description
- Responsibility for performing the inspection/test
- Inspection/Test Requirements and Standards
- Type and Frequency of Tests
- Inspection/Test Result Documentation References
- "Hold Points" as required by SFJV, the Client or AHJs

4.1.1 ITP Review and Approval

Prior to use for testing or inspection, the ITP will be approved by the Quality Control Manager (QCM) and submitted to the Client for review and approval as required. The ITP will be incorporated into the PSQCP.

4.1.2 ITP Revisions

If changes are required, the ITP will be revised and processed in the same manner as the original.

4.2 Inspection and Test Plan Activities

The inspection and testing will be performed by personnel knowledgeable in the inspection/test processes. Certifications of personnel and equipment for performing inspections and tests will be available upon request in accordance with the QP, refer to Reference 3.1 for the complete SFJV Project Wide QAQC Plan.

Inspection and test requirements identified as "Hold Points" will be noted on the ITPs. "Hold Points" will be discussed and defined further with Project personnel during the Pre- Construction Meetings. Construction management will be responsible for notifying the QCM when "Hold Points" occur and for coordinating with the Client or AHJs if their presence is required.

Inspection and test results will be recorded on forms referenced on the ITP. The forms to be used will be those provided by or approved by the Quality Control Manager. In most cases the ITP inspection will be documented on checklists and test results recorded on test reports. These checklists and test reports will be attached to the ITP. These forms will serve as documentation of conformance with the Project requirements.

If an inspected/tested condition meets the definition of a nonconformance, it will be processed in accordance with the NCR procedure, refer to Reference 3.2 for a further description of NCRs.

5.0 PROJECT RECORDS

A copy of the Inspection and Test Plans are retained in accordance with the Document Control procedures.

6.0 ATTACHMENTS

6.1 Form QP 109.01; Inspection and Test Plans

INSPECTION AND TEST PLAN

SUBJECT: _____

DATE: _____

SPECIFICATION REFERNECE: _____

[illegible]

SKANSKA | FLATIRON	Quality Procedure QP 110	
QUALITY STOP WORK ORDER	Rev. #	Date Approved
	0	

1.0 PURPOSE/SCOPE

This procedure describes the method for initiating, documenting, implementing, and releasing Stop Work Orders (SWO) imposed for quality related deficiencies to on-going work activities.

A SWO is a written notice directing construction supervision and management to stop work relating to specific activities due to one of the following situations:

- Activity is proceeding in violation of drawing or specification requirements,
- Defective material or equipment is used or being installed,
- Activity fails to follow approved procedures,
- Previous attempts to accomplish corrective action have failed.

2.0 DEFINITIONS

Nonconformance	A deficiency in characteristic, documentation, or procedure that renders the quality of an item unacceptable or indeterminate. Examples of nonconformance include physical defects, test failures, incorrect or inadequate documentation, or deviation from prescribed processing, inspection, or test procedures.
Condition Adverse to Quality	An all-inclusive term used in reference to any of the following: errors, omissions, failures, malfunctions, deficiencies, defective items, and audit and surveillance non-conformances.

3.0 REFERENCES

- 3.1 The SFJV Project Wide QAQC Plan
- 3.2 QP 107; Control of Nonconforming Items

4.0 PROCEDURE

4.1 Quality Stop Work Order

When a Condition Adverse to Quality is identified through an NCR, the condition will be evaluated by the Quality Manager (QM) to consider the potential of a SWO being warranted.

If the QCM believes a SWO may be necessary, the QCM consults with the Quality Manager (QM). If the QM concurs, and the affected work activity has not already stopped, the QM will issue a SWO. Upon issuing the SWO, Construction Management will be verbally notified and written documentation will be sent to the Project Manager, Construction Manager, Superintendent, and the Client.

Within the Stop Work Order document, the following items will be addressed by the QCM:

- The party responsible for performing the subject work
- The activity being stopped
- The reason for the work stoppage
- The actions required to resume the work

Personnel involved in the SWO will be indicated on the form; this will include a record of the SWO verbal notification, the individual responsible for initiating the SWO, and the QCM enacting the SWO.

Note: Any willful violation of a Stop Work Order may result in disciplinary action of up to and including removal from the project for the individuals responsible for the violation.

Prior to restarting the subject work, the SWO form will be returned to the QCM with the responsible party's proposed procedure for correcting the work. When the QCM approves the proposed corrective action, work may be resumed and copies of the SWO documentation will be distributed to the Project Manager, General Superintendent and the Client.

The Stop Work Order form can be seen as attached Form QP 110.01.

4.2 Stop Work Order Log

The QC Manager will maintain the current status of all SWOs in a Stop Work Order Log. A sequential numbering system for the SWOs will be used continuously throughout the Project.

The QC Manager will review the SWO Log to assure prompt corrective action is being taken on outstanding SWOs.

5.0 PROJECT RECORDS

Copies of SWOs are maintained in the project files. After project completion they are processed in accordance with the Document Control Plan.

6.0 ATTACHMENTS

6.1 Form QP 110.01; Stop Work Order Form

6.2 Form QP 110.02; Stop Work Order Log

QUALITY STOP WORK ORDER

SWO NO. _____ DATE: _____

1. DIRECTED TO AND RESPONSIBILITY FOR RESOLUTION:

2. WORK ACTIVITIES STOPPED:

3. REASONS FOR WORK STOPPAGE:

4. ACTIONS REQUIRED TO RESUME WORK:

5. Verbal Notice Given:

To: _____

Date: _____

Time: _____

6. Initiated By:

Date: _____

7. QM Signature:

Date: _____

8. Distribution:

• Project Manager • General Superintendent • Quality Director & Client

9. Corrective Action (To Be Filled In By Person Responsible For Resolution Prior To Returning Form To QCM):

10. Corrective Action Response By:

Signature: _____

Date: _____

11. Work Resumption Authorized By QCM:

Signature: _____

Date: _____

SWO NO.	DATE ISSUED:	DIRECTED TO:	SUBJECT:	SCHEDULED COMPLETION DATE:	ACTUAL COMPLETION DATE:

SKANSKA | FLATIRON ATMP Roadway Improvements Project – DESIGN- BUILD	Quality Procedure QP 111	
QUALITY TRAINING	Rev. #	Date Approved
	0	

1.0 PURPOSE/SCOPE

The purpose of this procedure is to assist employees in acquiring and maintaining the knowledge, skills, and abilities to provide and construct quality products. SFJV Management will identify, and document training needs to support work in the Contract documents and provide for the training of all personnel performing activities affecting quality. Adequate training allows the opportunity for professional growth and for employees to adapt to advance and improve performance.

2.0 DEFINITIONS

Orientation	The providing of instruction sufficient to familiarize the individual with the scope and requirements of a particular activity or responsibility.
On-the-job Training	Orientation, indoctrination, and/or training received or acquired while one undertakes a specific work assignment.
Training	An organized and planned process of instruction administered to individuals in such a manner as to make them proficient in, or qualified to perform a defined task or duty. Training includes orientation.

3.0 REFERENCES

3.1 The SFJV Project Wide QAQC Plan

4.0 PROCEDURE

4.1 Orientation

Orientation is required for all project personnel. At the completion of Orientation, each individual will sign an Attendance Record.

4.2 Continuous Training

The purpose of continuous training is to adapt to a changing environment. The need for additional training may be warranted by issuance of new major revisions to procedures.

SKANSKA | FLATIRON ATMP Roadway Improvements Project – DESIGN- BUILD	Quality Procedure QP 112	
CONTROL OF MEASUREMENT & TEST EQUIPMENT	Rev. #	Date Approved
	0	

1.0 PURPOSE/SCOPE

This procedure describes the requirements and responsibilities for calibrating and storage of inspection, measuring and test equipment (MTE) used to make acceptance decisions on the Project.

2.0 DEFINITIONS

MTE Measuring and Test Equipment

NIST National Institute of Standards and Technology

3.0 REFERENCES

3.1 The SFJV Project Wide QAQC Plan

4.0 PROCEDURE

4.1 General

The calibration and adjustment of MTE will be performed by companies or people qualified to calibrate or adjust the equipment. Calibration certification of MTE will be performed before its use on the Project and at intervals not to exceed twelve months unless noted otherwise. Calibration standards will be traceable to the National Institute of Standards and Technology (NIST), where applicable. Calibration certificates will be provided when requested by LAWA.

MTE will be properly handled, preserved, stored, and safeguarded to maintain the integrity of the equipment, and where manufacturer's recommendations on packaging, shipping, use and storage are provided, they will be followed.

4.2 Identifying and Adjusting Calibration, Inspection and Test Equipment

Throughout the project, identifying inspection and test equipment requiring calibration will be the responsibility of the independent testing laboratory manager or subcontractor's designated quality control personnel. This person's responsibilities will include:

- Reviewing plans and specifications to determine the type and accuracy of the MTE necessary to support the Project requirements

- Receiving inspection of MTE and verifying the calibration certificate was included by the vendor, if requested. If calibration certification was not requested, the equipment must be calibrated prior to use, if used for acceptance of the work
- Completing an Inspection Measuring and Test Equipment Log entry for each MTE requiring calibration
- Filing equipment calibration certificates in the MTE file
- Ensuring the MTE is calibrated / re-calibrated or adjusted at intervals stipulated by the equipment manufacturer or by the standard to which the tests are being performed, whichever is more frequent
- Ensuring damage or malfunctioning MTE is immediately removed from service and is re-calibrated or adjusted by qualified companies or people or replaced

4.3 Assessing the Validity of Previous Inspection, Measuring and Test Results

Assessing the validity of previous inspection, measuring, and test results begins with the personnel operating the equipment. If the MTE is suspected to be out of calibration, the equipment operator should notify the QCM or independent testing laboratory manager.

The QCM will then coordinate with qualified calibration personnel to check the equipment. If the equipment is found to be out of calibration, the QCM will review test records to determine how many, and which tests, were performed with the defective equipment and what, if any, tests need to be re-performed.

5.0 PROJECT RECORDS

Copies of measurement and testing equipment records are maintained in the project files. After project completion they are processed in accordance with the Document Control procedures.

6.0 ATTACHMENTS

6.1 Form QP 112.01; Inspection, Measuring, and Test Equipment Log

SKANSKA FLATIRON

ATMP Roadway Improvements
Project – DESIGN-
BUILD

INSPECTION, MEASURING, AND TEST EQUIPMENT LOG

PAGE ____ OF ____

ID No.	Equipment Description	Equipment Manufacturer	Catalog Number	Calibration Interval	Calibration Dates				Comments
					Received	Calibrated	Calibrated	Calibrated	

Continuous training may be performed using either the classroom or self-study. Management will determine when continuous training is required and what method will be used, classroom or self-study.

4.3 Conducting Training

Classroom presentations will be planned and presented using a Training Syllabus, Power Point presentation, demonstration, and/or providing a CD with relevant information or individual training, as appropriate.

4.4 Responsibilities

4.4.1 Management

The Project Manager is responsible for ensuring the implementation of this procedure. Management is also responsible for ensuring the development and implementation of continuing training programs.

4.4.2 Project Personnel

Project personnel are responsible for attending assigned training sessions, completing required reading assignments in a timely fashion, and documenting completion of required training activities as required by management.

5.0 PROJECT RECORDS

Copies of Training documentation are maintained in the project files. After project completion they are processed in accordance with the Document Control Procedures.

6.0 ATTACHMENTS

6.1 Form QP 111.01; Training Attendance Sign-In-Sheet

TRAINING ATTENDANCE -- SIGN-IN SHEET

SUBJECT:			
PRESENTED BY:			
DATE/TIME:		LOCATION:	

	NAME (PRINT)	NAME (SIGNATURE)	CONTRACTOR OR SUB	JOB TITLE OR CRAFT	PHONE NUMBER
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
12					
13					
14					
15					
16					
17					
18					

QP 111.01

SKANSKA	FLATIRON	ATMP Roadway Improvements Project – DESIGN- BUILD	Quality Procedure QP 113	
PROJECT CLOSEOUT			Rev. #	Date Approved
			0	

1.0 PURPOSE/SCOPE

This procedure describes the work process for tracking and closeout of outstanding construction, testing or documentation items necessary for completion of project facilities, systems, and components for subsequent turnover to LAWA or other 3rd party Stakeholder by SFJV.

2.0 DEFINITIONS

Punchlist A listing of contractually required items determined to be incomplete or deficient during a preliminary or final walkdown inspection. It is not used for repair of nonconforming work that needs the engineer's disposition. The punchlist is maintained in Procore under the purview of the Quality Control Manager.

Punchlist Item An individual item or element identified on the punchlist as not being acceptably completed.

Punchlist Item Status

1. Open: A punchlist item which has not been completed and closed
2. Completed: A punchlist item that construction has completed all work associated with the identified element of work.
3. Closed: A punchlist item that SFJV Quality Control has independently verified as being completed and coordinated with any other AHJ.
4. Exception: A punchlist item that has concurrence from the receiving organization (Startup, Client, etc.) that it has determined that the item may remain open or incomplete during initial turnover. The Contractor remains responsible for the closure of the item through coordination with the receiving organization.
5. Out-of-Scope: A punchlist item that has been listed on the punchlist but is determined not to be in the scope of the contract.

Originator The person participating in a walkdown that identifies and documents a punchlist item(s) of incomplete work.

Partial Acceptance	PARTIAL ACCEPTANCE - Any portion of the work which has been completed in accordance with the contract Documents and has been accepted in writing by LAWA prior its intended use and purpose
Punchlist Coordinator	The individual responsible for updating and maintaining the punchlist under supervision of the Quality Control Manager.
Punchlist Item Owner	The individual responsible for assuring the open punchlist item is completed (e.g. field engineer, superintendent, subcontractor representative, etc.)
Final Completion	Once Design Builder has received certificate of substantial completion and corrected any minor items on LAWA punch list Design Builder will request for Final Completion.
Substantial Completion	The stage in the progress of the Work where it is sufficiently and suitably complete in accordance with the Contract Documents for LAWA, in its sole discretion, to beneficially occupy or utilize the Work for the purposes for which it was intended.
Final Acceptance	Design Builder notifies LAWA that final completion has been accomplished. LAWA verifies all items on punchlist are complete and issues notice of final completion.

3.0 REFERENCES

3.1 The SFJV Project Wide QAQC Plan

3.2 PR-27 Project Closeout

4.0 PROCEDURE

4.1 Pre-Substantial Completion Work

Once SFJV has completed sections of work that are ready to turnover to LAWA for substantial completion. A Punchlist will be generated by SFJV QC department to verify all incomplete items and items requiring correction are completed.

4.2 Generating Punchlist

When a specified work package is identified as nearing completion or is complete, and SFJV's internal verification that all work is complete, a punchlist will be generated by SFJV QC and all parties responsible for the work.

Using design drawings, specifications, shop drawings, approved submittals, and other contract documents, all work is reviewed for completeness and acceptability. All items not acceptably completed are identified and added to the punchlist.

Any required documentation associated with the work that has not been received, reviewed, and approved as necessary, will be added to the punchlist.

The punchlist item will clearly identify the scope, location, and applicable contract documents.

The Originator for each punchlist item shall provide all required information on the Punchlist Item Identification Form. This information is provided to the Punchlist Coordinator.

The Punchlist Coordinator maintains a complete punchlist for each work package and distributes the punchlist to those responsible for the work.

As work is completed for the punchlist items, the Quality Control Manager shall be notified. Items are then verified by the Quality inspection staff. This verification is documented on the inspector's Daily Inspection Report or visually verified by Quality Control Manager. The Punchlist Coordinator updates the punchlist as punchlist items are verified as complete or if additional items are identified. A closed punchlist item shall not be re-opened. If necessary, a new punchlist item will be initiated.

4.4 Notification of substantial completion

After punchlist items have been completed, closed and final cleaning has been completed, a notice of substantial completion inspection will be transmitted to LAWA which will include a list of minor items from the punchlist that are still pending completion or could not be completed prior to notice of substantial completion.

4.6 Substantial Completion Inspection

After LAWA has received notice of substantial completion from design builder QC manager, LAWA will then create a punchlist that will be sent to Skanska. Once punchlist is received SFJV will immediately begin corrections. After items on LAWA punch list have been completed and verified by Quality Control, LAWA will be notified for verification of punch list items. Should additional re-inspection be required, LAWA will make one repeat inspection

which design builder shall reimburse LAWA. Once LAWA has verified all items are complete a certificate of substantial completion will be issued by LAWA.

4.7 Final Completion

After receipt of substantial completion certificate. Skanska will complete any minor items that remain, and the QC manager will notify LAWA for final inspection. This final inspection will include meter readings for utilities, all record documents in accordance with PR-24, final maintenance and operations manuals, photographs, property survey, warranties, maintenance agreements, certifications, releases from AHJ, As-builts drawings, BIM mode per PR-21, all submittals and miscellaneous equipment.

4.8 Final Acceptance

Once all items referenced above are complete SFJV will complete a verification of each item contained on LAWA's punch list, once LAWA has review and found all items satisfactory, LAWA will issue a letter of final acceptance. LAWA will file the notice of final completion and acceptance of public works project with the Country Recorder's Office.

5.0 PROJECT RECORDS

Completed punchlists and the quality reports verifying completion and closure of punchlist items will be part of the project's quality records and stored in Procore. After project completion they are processed in accordance with Document Control procedures.

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD		Page 37 of 38	
PROJECT-WIDE QAQC PLAN		Rev. #	Date Approved
		1	

APPENXIX 2 – DESIGN QUALITY MANAGMENT PLAN

LAWA LAX

ATMP

Roadways

PDB

SKANSKA FLATIRON

HNTB Job N° 71473



Quality Manual

A component document of the Design Quality Management Plan (DQMP)

The Quality Manual is the top tier document within the DQMP. This Quality Manual serves to establish and document the required quality activities executed to ensure quality deliverables. The Quality Manual is supported by detailed procedures describing how these quality activities are conducted and the resulting quality records.

TABLE OF CONTENTS

ACRONYMS

DEFINITIONS

CONTENTS

1.0	PURPOSE.....	8
2.0	SCOPE	8
3.0	DOCUMENT CONTROL.....	8
4.0	QUALITY RECORD CONTROL	8
5.0	MANAGEMENT RESPONSIBILITY AND REVIEW.....	8
6.0	QUALITY PLANNING.....	11
7.0	QUALITY MANAGEMENT OF SUBCONSULTANTS	12
8.0	DESIGN AND DEVELOPMENT	14
9.0	DESIGN SERVICES DURING CONSTRUCTION (DSDC).....	20
10.0	QUALITY AUDIT	23
11.0	CONTINUAL IMPROVEMENT, CORRECTIVE AND PREVENTIVE ACTION	25
12.0	REVISION HISTORY	26

APPENDICES

APPENDIX A, PROCEDURES

- QP 01, Quality Planning
- QP 02, Project Quality Plan Training
- QP 03, Control of Project Quality Records
- QP 04, Over the Shoulder Reviews
- QP 05, Quality Check/Review Color Codes
- QP 06, Discipline QC Check
- QP 07, Senior Technical Review
- QP 08, Interdisciplinary Review
- QP 09, Independent Design Check
- QP 10, Constructability Review
- QP 11, Visual Check
- QP 12, QA Review
- QP 13, Client/Owner/Third Party Review and Comment
- QP 14, Control of Design Changes
- QP 15, Not Used, Replaced by QP 20
- QP 16, Not Used, Replaced by QP 20
- QP 17, Not Used, Replaced by QP 20
- QP 18, Not Used, Replaced by QP 20



- QP 19, Bluebeam Client-Owner-Third Party Review
- QP 20, Bluebeam QMS Review

APPENDIX B, FORMS

- QF 01, Quality Plan Approval Form (HNTB Internal)
- QF 02, Client Deliverable Quality Matrix
- QF 03, Attendance Roster
- QF 04, Comment Resolution Form
- QF 05, QC Check/Review Record
- QF 06, Calculation Cover Sheet
- QF 07, Certificate of Compliance
- QF 07A, Subconsultant Certificate of Quality Plan Compliance
- QF 08, QA Review Record
- QF 09, Design Change Request
- QF 10, Design Change Request Log
- QF 11, Quality Audit Roster
- QF 12, Quality Audit Checklist
- QF 13, Quality Audit Report
- QF 14, Corrective/Preventive Action Request Log
- QF 15, Corrective/Preventive Action Request
- QF 16, Subconsultant Quality Plan Approval Form
- QF 17, Subconsultant Quality Plan Coversheet
- QF 18, Quality Audit Plan



ACRONYMS

BIM- Building Information Model
CAR – Corrective Action Request
CDQM – Client Deliverable Quality Matrix
CQO – Corporate Quality Officer
DBCE – Design Build Chief Engineer
DCN – Design Change Notice
DM – Design Manager
DQAM – Design Quality Assurance Manager
DQMP – Design Quality Management Plan
DSDC – Design Services During Construction
DSDC PM – Design Services During Construction Project Manager
EOR – Engineer of Record
FDC – Field Design Change
IFC – Issued for Construction
NCR – Nonconformance Report
OL – Office Leader
OQM – Office Quality Manager
OTS – Over the Shoulder
PAR – Preventive Action Request
PEX – Project Executive
PM – Project Manager
QA – Quality Assurance
QC – Quality Control
RFI – Request for Information

DEFINITIONS

Accept-As-Is – A potential disposition proposed by a Contractor to address a nonconforming condition. This disposition suggests the contractor prefers to accept the nonconforming condition in its current state and seeks engineering and potentially client approval of this disposition. This disposition requires an engineering evaluation and response which is subject to quality check and review activities in accordance with this quality plan.

Accuracy Check – A check performed during the Discipline QC Check to verify that project deliverable inputs and outputs are correct, and that assumptions and conclusions are accurate.

Backchecker – An individual, typically the Originator of a project deliverable, who is responsible for reviewing comments made by a Checker and documenting agreement or disagreement with those comments. The Backchecker is also responsible for resolving any differences of opinion with the Checker.

BIM – Building Information Model is a 3D model that may or may not contain attributed information.

Bluebeam – A software application that facilitates the electronic execution of DQMP required quality checks/reviews while providing all reviewers simultaneous access to the CheckPrint with visibility to all comments. Bluebeam maintains an audit trail of check, backcheck, update, and verify activities.



Checker – A qualified individual with sufficient, relevant experience in the area of what is to be checked, and in some cases possessing specific subject matter expertise. The Checker shall be independent of the production of the deliverable being checked, but should have familiarity with the client, contractual requirements, and the approved design criteria.

CheckPrint – A hardcopy or electronic copy of a project deliverable that is submitted for the quality check and review process. This term may apply to plans, specifications, reports, studies, calculations, or other project deliverables. The CheckPrint is used to record Check, Backcheck, Update and Verify activities.

Client Deliverable Quality Matrix – A matrix developed during the project quality planning process used to identify the types of quality checks and reviews required for each client deliverable or submittal, inclusive of internal deliverables. This matrix forms the basis of the DQMP.

Conformance Check – A check performed during the Discipline QC Check to verify the deliverable meets the design criteria, applicable technical or building codes or other deliverable requirements. Conformance Checks are performed using the design criteria itself (when sufficiently detailed), a client provided design criteria report or checklist, or a discipline specific design criteria checklist developed by the Task Lead to ensure key discipline specific criteria and code requirements are fulfilled. This check also involves assurances of consistency between various deliverable formats, e.g. 2D plans, 3D models, calculations, specifications, reports, etc.

Constructability Review – A review of project deliverables performed by Contractor representatives to identify and address opportunities to improve the cost effectiveness of construction, the suitability of the design to traditional construction means and methods, and the clarity of the construction documents.

Construction Submittals - During construction the contractor transmits to HNTB Submittals typically consisting of shop drawings, material or product data, and samples for review by HNTB. The purpose of Submittals is to demonstrate the way by which the Client proposes to conform to the information given and the design concept expressed in the Contract. The designer reviews the Submittals for conformity to the requirements of the Contract Documents and to the intent of the design. Required Submittals are typically defined within the Specifications portion of the Contract Documents.

Corrective Action – An improvement action taken in response to a confirmed nonconformance, to address and prevent recurrence of the root cause of the nonconformance.

Deliverables - Deliverables consist of formal project deliverables provided to the client as documented within the project scope as well as internal deliverables captured during the work planning process. All such deliverables shall be captured within the Client Deliverable Quality Matrix and subject to quality checks and reviews.

Design Criteria – Design criteria consists of published design standards, technical or building codes, client provided special standards or specifications, client provided criteria/checklists, as well as HNTB developed discipline specific criteria checklists.

Design Quality Management Plan – The compiled set of documents, inclusive of this Quality Manual, Quality Procedures and Quality Forms that describe the commitments, procedures and resulting objective evidence necessary to manage the quality of project design deliverables consistent with contract requirements.

Design Services During Construction – Design services during construction are those services provided by the



design engineering team to support construction and consist in general of responses to Requests for Information (RFI), review of construction submittals, review of nonconformance disposition proposed by the contractor, and preparation of As-Built or Record Drawings in accordance with contractual requirements.

Design Services During Construction PM/Lead – The HNTB project team member responsible for project management during the construction phase of the project.

Discipline QC Check – The first in the sequence of quality checks and reviews performed on all project deliverables by an independent qualified checker, within the discipline, to check the conformance, accuracy, scope, and style of a project deliverable. The Discipline QC Check process involves Checking, Backchecking, Updating and Verifying.

Engineer of Record – The professional engineer responsible for signing, sealing and issuing project deliverables that were developed or prepared under their supervision.

Field Design Change - Design changes initiated by the Contractor to documents approved and Released for Construction (RFC) are typically completed under a Field Design Change (FDC). FDCs are subject to quality check or review activities.

Field Review – A review of the design conducted by the Task Lead or Designer in the field to confirm the adequacy of the design to the actual location.

Independent Design Check – An independent check performed on project deliverables, when required by the Client Deliverable Quality Matrix, to gain a higher level of confidence that inputs and outputs used in the design are correct, to verify general compliance with design criteria, and to conduct independent analysis of critical project elements. Independent Design Check is performed through the development of independent calculations, without reference to the original calculations.

Interdisciplinary Review – A review performed on project deliverables comprised of multiple disciplines to ensure consistency of the design between disciplines and segments; between design prepared by HNTB and its subconsultants; between design of the project and potential adjacent projects; between design of the project and the potential affected facilities owned by other stakeholders; and to prevent coordination errors in construction documents.

Nonconformance Reports (NCR) - A report issued typically during construction noting an observed nonconformance of the work constructed when compared with released plans and specifications.

Notice of Design Change (NDC) - Design changes initiated by the designer to documents approved and/or released for construction are typically completed under a Notice of Design Change (NDC). NDCs are subject to quality check or review activities.

Over the Shoulder Review – A review of project deliverables performed with the Contractor between formal submittals to confirm that the design, as it progresses, fulfills Contract Document requirements.

Preventive Action – An improvement action taken in response to a potential nonconformance, to address and prevent occurrence of the root cause of the potential nonconformance.

Quality Assurance (QA) – Those activities performed to assure that quality control activities were performed on project deliverables in accordance with the DQMP and to assure that those quality control activities were



effective to meet project requirements.

Quality Assurance (QA) Review – The final quality review completed on project deliverables.

This QA Review, performed by the Design Quality Assurance Manager, is performed to assure that all other required quality control activities, as determined by the DQMP and Client Deliverable Quality Matrix have been performed and that corresponding records are available.

Quality Audit – A systematic process by which an independent and qualified party performs an objective review of the project to confirm implementation of the DQMP, and to identify opportunities for improvement in processes and systems.

Quality Control (QC) – Those activities performed to check and review project deliverables to assess compliance with Contract Document requirements and to subsequently correct noncompliances.

Quality Management – Those activities performed to plan for, control, monitor and assure that project deliverables meet project requirements. The entirety of the processes described in the DQMP.

Quality Record – A record, potentially a completed form, CheckPrint, or other documented evidence (either in electronic or hardcopy format) to indicate execution of and compliance with the DQMP.

Record Drawing – An official record of the project at the time construction is completed based on the original construction documents revised to show all additions, deletions, or any other changes made during construction. Record Drawings are subject to quality check or review activities.

Repair – A potential disposition proposed by a Contractor to address a nonconforming condition. This disposition suggests the contractor prefers to repair the nonconforming condition such that form, fit or function are restored, but the repaired condition will not fully comply with plans or specifications, and seeks engineering and potentially client approval of this disposition. This disposition requires an engineering evaluation and response which is subject to quality check and review activities in accordance with this quality plan.

Replace – A potential disposition proposed by a Contractor to address a nonconforming condition. This disposition suggests the contractor prefers to fully replace the nonconforming and return full compliance with plans or specifications. Response to this disposition does not require any engineering evaluation and hence this response is not subject to quality check or review activities.

Requests for Information (RFI) – During construction RFIs are used to formally ask a question or request direction or clarification from the Engineer of Record. Responses to RFIs are subject to quality check or review activities.

Rework – A potential disposition proposed by a Contractor to address a nonconforming condition. This disposition suggests the contractor prefers to fully rework the nonconforming and restore full compliance with plans or specifications. Response to this disposition does not require any engineering evaluation and hence this response is not subject to quality check or review activities.

Scope Check – A check performed during the Discipline QC Check to ensure the design meets the required level of completeness and contractually required level of detail for the phase/milestone being submitted.

Senior Technical Review – A review performed on project deliverables, when required by the Client Deliverable



Quality Matrix, by subject matter experts in order to review high risk and complex project elements. These reviews are intended to ensure that the design fulfills the intended use and meets the basis of design and/or approved design criteria. These reviews are also used to ensure that the design has been developed in accordance with applicable standards of professional practice.

Style Check – A check performed during the Discipline QC Check to verify compliance with applicable CADD standards and style requirements.

Task Lead – A qualified individual responsible for the production and quality of project deliverables within a given discipline.

Updater – An individual who is responsible for making updates or corrections to project deliverables in accordance with the Backchecker's resolution of the Checker's comments.

Verifier – An individual, typically the Checker, who is responsible for verifying that Checker comments have been resolved as intended.

Visual Check – A visual check of the final project deliverable to confirm that it is complete, in the proper order, and printed/plotted or electronic appearance is in accordance with requirements.



1.0 PURPOSE

The purpose of the DQMP is to define the quality management processes, their inter-relationships, inclusive of risk mitigation strategies to be utilized by Skanska-Flatiron a Joint Venture to produce quality deliverables that meet the requirements of the Contract Documents; maintain consistent quality records, and establish the basis for continual improvement. This Quality Manual along with the Procedures and Forms in the Appendices comprise the DQMP.

2.0 SCOPE

The DQMP shall apply to the quality management of design deliverables provided by Skanska-Flatiron a Joint Venture on the Contract for the Los Angeles World Airports Airfield & Terminal Modernization Program Landside Improvements (LAWA-ATMP).

3.0 DOCUMENT CONTROL

The DQMP is developed and maintained by the Design Quality Assurance Manager (DQAM) and is reviewed and approved by the HNTB Design-Build Chief Engineer (DBCE), the HNTB Corporate Quality Officer (CQO), Skanska-Flatiron a Joint Venture and LAWA prior to release. Updates to the DQMP undergo the same level of review and approval and are described within the Revision History. Current versions of the DQMP are made available to project staff through publication on the HNTB ACC and the internal HNTB Project Sharepoint site: <https://projects.hntb.com/p4/71473/qdl/Forms/AllItems.aspx>.

Printed copies of these documents become uncontrolled. Users must go to the electronic repository to ensure they are accessing the current version.

4.0 QUALITY RECORD CONTROL

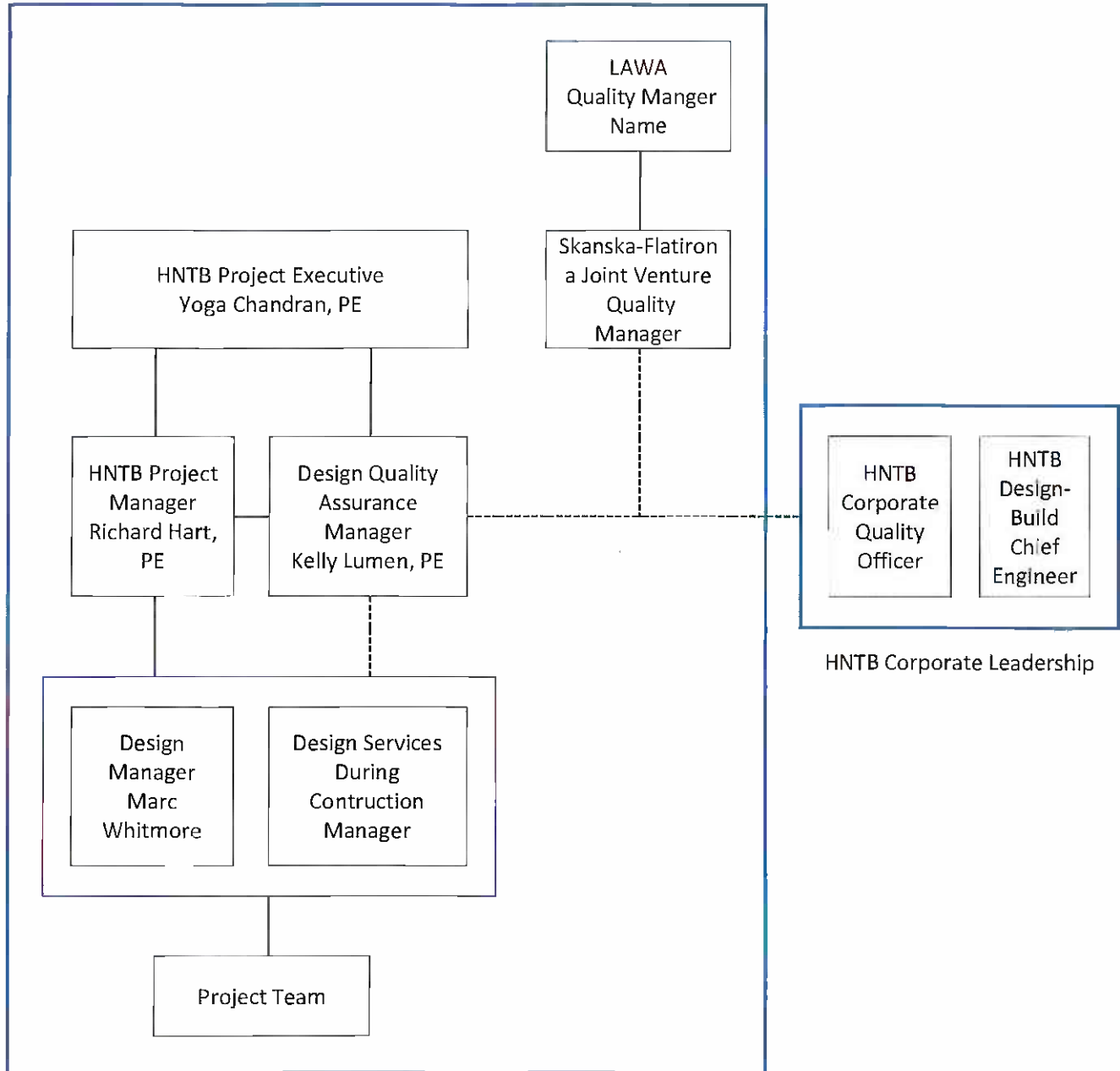
Design quality records that are generated through the execution of the DQMP shall be maintained in accordance with the Contract Documents and quality record repository requirements as documented within the DQMP. Project design quality records shall be identified and organized to facilitate easy retrieval. Procedure QP 03, Control of Project Quality Records describes this process in detail.

5.0 MANAGEMENT RESPONSIBILITY AND REVIEW

Project design leadership is decidedly client focused, and continually and strongly communicates the importance of anticipating, understanding, and meeting the needs of our clients and other stakeholders, including the assessment and mitigation of associated risks. Leadership is committed to fulfilling the quality expectations and requirements of our clients, and to continual improvement through the execution of this DQMP. To assure the independence of the design quality organization, the below organizational structure has been established.



DESIGN QUALITY ORGANIZATION



5.1 ROLES AND RESPONSIBILITIES

5.1.1 Corporate Quality Officer (CQO) – The CQO is responsible for:

- Providing quality management guidance to the PEX, when needed
- Approval of the DQMP
- Assisting the DQAM in resolving client comments to the DQMP, when needed
- Conducting quality audits, as necessary, to assure DQMP compliance
- Assisting DQAM and/or PEX in achieving effective DQMP compliance, when needed



- 5.1.2** Design-Build Chief Engineer (DBCE) – The DBCE is responsible for:
- Approval of the DQMP
 - Assisting DQAM and/or PEX in achieving effective DQMP compliance, when needed
- 5.1.3** HNTB Project Executive (PEX) – The PEX is responsible for:
- Assembling the HNTB resources needed to deliver the project
 - Providing proactive leadership to the HNTB Project Manager
 - Championing the implementation of the DQMP
 - Serving as the top-level HNTB resource to the DQAM to resolve quality issues
 - Participating in or monitoring Monthly Project Reviews to assess continuing adequacy and suitability of the DQMP
- 5.1.4** HNTB Project Manager (PM) – The PM is responsible for:
- Compliance of project deliverables with Contract Document requirements
 - Supporting the DQAM in the development of the DQMP
 - Overseeing the implementation of the DQMP and resolving related issues
 - Ensuring appropriate resources, schedule, and budget for DQMP activities are included in the Work Plan
 - Review and concurrence with the DQMP
 - Presenting the DQMP to the client, working with the DQAM to address client feedback, and obtaining client approval of the final DQMP
 - Participating in Monthly Project Reviews to assess continuing adequacy and suitability of the DQMP
- 5.1.5** Design Quality Assurance Manager (DQAM) – The DQAM is an key member member of the HNTB design leadership team, reporting to the HNTB PM, but also with independent reporting responsibility to the HNTB PEX. The DQAM is responsible for:
- Developing the DQMP that incorporates contractual requirements and those of the HNTB Quality Management System
 - In coordination with the HNTB PM, addressing client feedback, and achieving client approval of the DQMP
 - Submitting the DQMP to the DBCE and CQO for review and approval
 - Maintaining and updating the DQMP throughout the life cycle of the project and submitting for necessary approvals
 - Working with the DM and Task Leads to determine the need for discipline specific criteria checklists
 - Providing training to the project team on the DQMP
 - Reviewing subconsultant quality plans and auditing subconsultants for adherence to those plans
 - Performing quality assurance (QA) reviews on design deliverables to verify compliance with the DQMP
 - Overseeing the effective implementation of the DQMP, and communicating any issues or potential issues early to the HNTB DM, PM, PEX and when necessary to the DBCE and CQO.
 - Participating in Monthly Project Reviews to report on quality performance and effectiveness of the DQMP
- 5.1.6** Design Manager (DM) – The DM is responsible for:
- Participating in quality training, including training specific to the DQMP



- Overseeing the implementation of the DQMP and resolving related issues
- Working with the DQAM and Discipline Leads to assure contractual requirements and Owner expectations are understood
- Working with the DQAM and Task Leads to determine the need for discipline specific criteria checklists to support design and QC processes
- Participating in quality audits and responding to corresponding Corrective/Preventive Action requests to address audit findings

5.1.7 Design Services During Construction Project Manager (DSDC PM) – The DSDC PM is responsible for:

- Working with the DQAM to make appropriate updates to the DQMP as the project moves into construction
- Participating in quality training, including training specific to the DQMP
- Overseeing the implementation of the DQMP and resolving related issues
- Working with the DQAM and Task Leads to assure contractual requirements and Owner expectations are understood
- Participating in quality audits and responding to corresponding Corrective/Preventive Action requests to address audit findings

5.1.8 Project Team Members – The project team members are responsible for:

- Participating in quality training, including training specific to the DQMP
- Developing deliverables in accordance with Contract Document requirements
- Performing a self-check of all deliverables prior to submittal into quality processes
- Complying with the DQMP
- Design Discipline Leads are responsible for assuring effective completion of DQMP processes prior to QA Review and for communicating any challenges to the DQAM and DM
- Maintaining project quality records in accordance with QP 03, Control of Project Quality Records
- Participating in quality audits and responding to corresponding Corrective/Preventive Action requests to address audit findings

5.2 MANAGEMENT REVIEW

The effectiveness and adequacy of the DQMP to provide services and design deliverables meeting the requirements of the Contract Documents are reviewed during HNTB Monthly Project Reviews. DQMP components reviewed during Monthly Project Reviews include:

- Audit results
- Status of Corrective/Preventive Actions
- Completion of required quality checks/reviews
- Conformance of design deliverables to Contract Document requirements
- Client review comments
- Risks impacting successful implementation of the DQMP
- Improvements or changes to the DQMP
- Actions from previous Monthly Project Reviews

6.0 QUALITY PLANNING

Quality work is not accidental and cannot be achieved on a project without planning for it. Quality planning is achieved through the following activities/processes:



6.1 WORK PLAN/CLIENT DELIVERABLE QUALITY MATRIX

As client deliverables, according to milestones or phases, are identified through the work planning process, they shall be documented within Form QF 02, Client Deliverable Quality Matrix (CDQM). The DM, in concert with the DQAM and Task Leads, shall determine the quality checks and reviews necessary to assure quality for each deliverable, and shall document those required checks and reviews within the CDQM. The Discipline QC Check, Visual Check, and QA Review are mandatory for all deliverables, and Interdisciplinary Review is mandatory for all deliverables involving more than one discipline. Constructability Review is also a mandatory review, being performed by the Contractor. Other reviews such as Over the Shoulder Review, Senior Technical Review, and Independent Design Check shall be applied to deliverables as required by the client and/or based upon complexity and risk.

Once determined, the required quality checks and reviews shall be incorporated into the project work plan, including appropriate resources, budget, and schedule

The resulting CDQM shall be maintained by the DQAM and shall serve to communicate to the project team the quality check and review activities to be carried out on each deliverable prior to submittal to the client. This matrix shall also be used to communicate the "quality" schedule on the project. The matrix shall identify the start and end dates for all quality check and review activities in order to facilitate time for effective reviews and resolution of resulting comments prior to due dates to clients. This process is described within Procedure QP 01, Quality Planning.

6.2 DQMP TRAINING

As soon as possible after Notice to Proceed (NTP) and prior to the scheduled completion of any quality check or review activities, the DQAM shall provide training on the DQMP to design project team members, including Contractor and Owner staff when applicable.

The purpose of the training is to ensure all design project team members understand the DQMP and have detailed knowledge of the required quality checks and reviews to be completed on each deliverable prior to submittal to the client. The training shall cover the records, checklists or forms that are required to show evidence of completion of the required quality checks and reviews and shall inform team members where/how such records are to be stored.

In all cases, project team members need to receive DQMP training prior to conducting quality check or review activities. DQMP training shall be performed again as projects transition from Pre-Award, Post-Award, or into Construction Phase Services as project team members and deliverables change. Records of participation in DQMP training shall be maintained on Form QF 03, Attendance Roster. DQMP training shall be provided on a recurring basis to address new/changing project team members. Procedure QP 02, Project Quality Plan Training describes this process in detail.

7.0 QUALITY MANAGEMENT OF SUBCONSULTANTS

When it is necessary to utilize subconsultants for project delivery, either to augment HNTB capabilities or to fulfill client goals, HNTB selects subconsultants based upon:

- Understanding of project requirements
- Demonstrated professional and technical competence
- Previous successful quality delivery with HNTB and/or the particular client



- Capability/resource availability to fulfill the requirements within the project schedule
- Client preference or direction

The design subconsultants used on this project and their scope are:

PSOMAS – Survey

DYA – Geotechnical

IDC – Structures

MGE – Structures

MA Engineering - Civil/Utilities/Drainage

TAG - Civil/Utilities/Drainage

BA – Utilities

Lynn Capouya – Landscape

Paul Murdoch Architects – Architect/ Aesthetics

Selbert Perkins – Airport Signage

7.1 QUALITY PLANS

The quality of subconsultant work is of critical importance to project success and as such, HNTB exercises quality management of subconsultants through one of two methods. Based upon the scope of subconsultant deliverables, specialized expertise involved, and the integration of those deliverables with HNTB deliverables, the DM and DQAM shall determine whether the subconsultant will be requested to adopt this DQMP, or whether the subconsultant may follow a quality plan of their own, provided it is, at a minimum, as rigorous as this DQMP. Requirements for quality management are documented within respective Subconsultant Agreements.

7.1.1 When following this DQMP, subconsultants shall receive training to the DQMP as described in Section 6.2 and shall be expected to follow this DQMP for quality management of their deliverables, including the submittal of quality records required by this DQMP.

7.1.2 When the decision is made for the subconsultant to follow their own quality plan, the subconsultant shall submit that quality plan to the DQAM for review and approval. The subconsultant quality plan shall be appropriate to the scope of services provided by the subconsultant and describe how the subconsultant ensures conformance of their services and/or deliverables to requirements. The plan shall include a description of the quality control check and review procedures used and the resulting quality records. Form QF 16, Subconsultant Quality Plan Approval Form shall be utilized to facilitate and record review and approval.

In lieu of a documented quality plan, subconsultants may complete and submit Form QF 17, Subconsultant Quality Plan Coversheet to the DQAM for review and approval.



- 7.1.3** In either case, the DQAM shall perform audits of subconsultants to assess their compliance with their own quality plan, or this DQMP, these reviews should also include an assessment of technical conformance of subconsultant work products. The DQAM may be assisted by a Subject Matter Expert when necessary to make this assessment. Section 10.0, Quality Audit of this Manual describes this process.

7.2 VERIFICATION OF SUBCONSULTANT DELIVERABLES

Subconsultants are responsible for performing the necessary quality control checks and reviews to ensure their deliverables meet requirements in accordance with this DQMP, or their own quality plan.

In cases when subconsultants follow their own quality plan, they shall submit, at a minimum, a certificate of compliance certifying that deliverables have been checked and reviewed in accordance with their approved quality plan. Depending upon the criticality of subconsultant deliverables, the decision may be made by the DM and DQAM that the subconsultant shall submit actual quality records in lieu of a certificate of compliance.

In cases when subconsultants follow this DQMP, they shall submit actual quality records as required herein, including a certificate of compliance, QF 07A Subconsultant Certificate of Quality Plan Compliance, certifying that deliverables have been checked and reviewed in accordance with this DQMP.

- 7.2.1** The DQAM shall perform a quality assurance review, or QA Review of subconsultant deliverables. This QA Review shall consist of a review of the subconsultant provided certificates and actual quality records to confirm that these processes have been followed. Procedure QP 12, QA Review describes this process in detail.
- 7.2.2** Subconsultant deliverables may also be subject to Senior Technical Review or Independent Design Check based upon scope, risk or Contract Document requirements. In these cases, these necessary quality checks or reviews shall be determined during the Quality Planning process and documented within the CDQM in accordance with Procedure QP 01, Quality Planning.

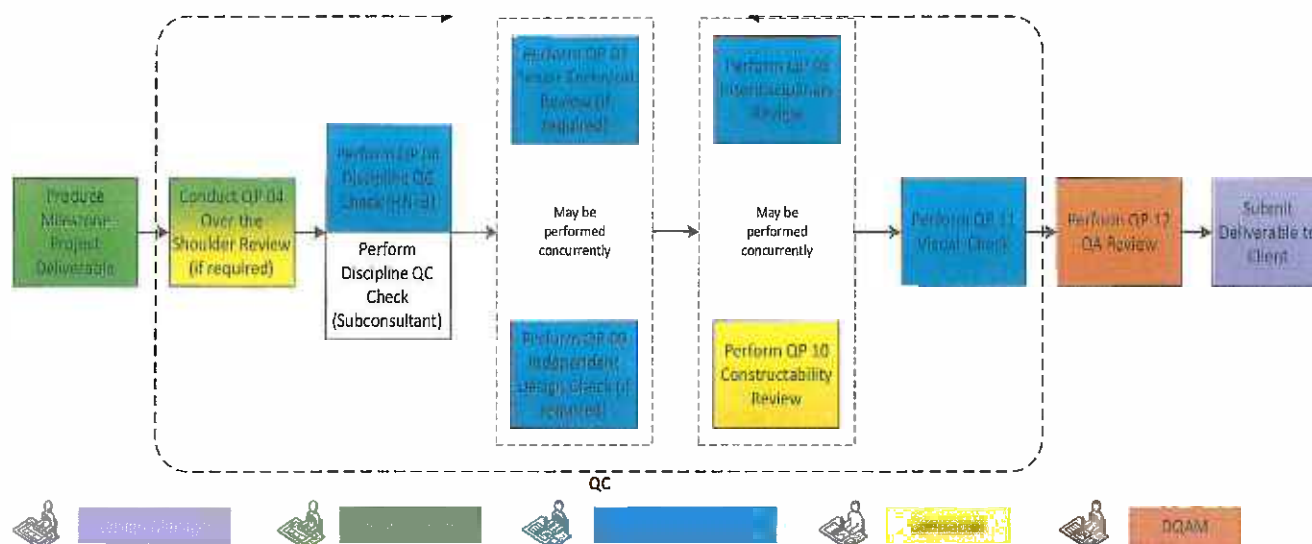
8.0 DESIGN AND DEVELOPMENT

The quality management of project deliverables is accomplished through a series of quality control checks and reviews, and a quality assurance review, specifically determined for each design deliverable through the quality planning process, in accordance with Procedure QP 01, Quality Planning, and documented within Form QF 02, CDQM. Sections below describe the various quality checks and reviews required. It should be noted that it is required that project design deliverables are in a completed state, and have undergone self-check (for that milestone or phase) when submitted for quality checks and reviews.

It is required that Discipline QC Check, Independent Design Check (when applicable), and Senior Technical Review (when applicable) be completed and those comments resolved and verified prior to beginning Interdisciplinary or Constructability Review. All required checks and reviews must be completed, and those comments resolved and verified prior to completing the QA Review. The primary purpose of QA Review is to ensure that **all** required checks and reviews have been completed and comments resolved and verified. The CDQM defines Start and End Dates for all quality checks and reviews in order to complete these activities prior to submittal of a deliverable to the client.



The diagram below depicts the expected sequence and inter-relationship of quality checks/reviews performed on project deliverables prior to submittal to the client. Exceptions to this sequence, meaning allowing additional concurrence of check and review activities may be approved by the PEX, DBCE and CQO when project requirements dictate. When this situation occurs, the DQAM shall define the process by which comments from concurrent checks and reviews will be resolved and potentially re-verified, including corresponding documented records to support QA Review.



All required checks and reviews shall be completed, and comments resolved and verified prior to the submittal of any deliverable to the client.

8.1 DESIGN INPUT

Inputs to the design process such as design criteria (inclusive of infrastructure mobility equity considerations) shall be documented in accordance with Contract Document requirements. The resulting design criteria shall be reviewed in accordance with the DQMP, and approved by the Contractor and/or Owner, prior to design development activities. Any conflicts in design criteria as a result of conflicting standards or requirements by multiple stakeholders shall be resolved with engagement or concurrence of the Contractor and/or Owner.

8.2 DESIGN OUTPUT

Design output shall be defined within approved design criteria, discipline specific checklists (including applicable infrastructure mobility equity requirements), or other design checking aids to facilitate conformance checking to assure that design deliverables meet Contract Document requirements. Conformance with design criteria is assessed within the Discipline QC Check in accordance with Procedure QP 06, Discipline QC Check.

8.3 VALIDATION OF SOFTWARE/APPLICATIONS

Validation of design and development software/applications used during design development is performed through an assessment of inputs and a review of outputs to confirm appropriate results.

This validation can be performed with independent hand calculations or by another suitable replication of the results. Changes in software versions and design criteria shall be considered for re-validation.

Formulas utilized in spreadsheets shall be validated with manual calculations the first time and spot checked thereafter. These validations are performed as part of the Accuracy Check required in Discipline QC Check in accordance with Procedure QP 06, Discipline QC Check.

8.4 SELECTION AND USE OF SOFTWARE/APPLICATIONS

The DM and Task Leads shall determine and select the most appropriate design and development software/application to meet project needs. These decisions are based upon project design and development needs, the need to coordinate with other disciplines, and the need to effectively communicate design development with the client.

8.5 OVER THE SHOULDER (OTS) REVIEWS

OTS Reviews shall be performed on project deliverables when required by the CDQM. OTS Reviews represent informal opportunities to check in with the Contractor, between formal deliverable submittals to confirm that the design, as it progresses, fulfills requirements and expectations relative to design criteria, project BIM requirements and other contractual requirements. Comments generated through OTS reviews shall be documented for communication back to the project team. Procedure QP 04, Over the Shoulder Reviews describes this process in detail.

8.6 DISCIPLINE QC CHECK

Discipline QC Check is required prior to submittal to the Client on all project design deliverables; and applies to the detailed checking of plans, calculations (including quantities and construction cost estimates), specifications, reports and studies. Discipline QC Check shall be performed by a qualified Checker with sufficient, relevant experience in the discipline of the deliverable being checked, and in some cases, may possess specific subject matter expertise. The Checker shall be independent of the Originator of the deliverable being checked, but should have familiarity with the client, contract requirements and the design criteria. The DM with input from the Task Leads shall identify independent and qualified Checkers within each design discipline and provide a list of those qualified Checkers to the DQAM for verification during QA Review.

During Discipline QC Check, the Checker shall perform:

- A Conformance check to verify the deliverable meets the design criteria, including any approved design changes, project BIM requirements, infrastructure mobility equity requirements, other contractual requirements and consistency between deliverable formats.

Note: Conformance Checks shall be performed using the design criteria itself (when sufficiently detailed), a client provided design criteria report or checklist, or a discipline specific design criteria checklist developed by the Task Lead to ensure key discipline specific criteria are met. These checklists are not intended to be duplicates of the design criteria, but are intended to capture, based on experience, those discipline specific critical items in danger of being missed and that are not adequately checked by other means. The conformance check should also include a check that Contractor and Owner comments from previous submittals have been resolved and verified as agreed upon, and that any deferred comments have been addressed.



- An **Accuracy** check to verify that design outputs are correct, that calculations and reports do not contain mathematical inconsistencies, and that information on drawings is consistent with the results of calculations and reports.
- A **Scope** check to ensure the deliverable meets the required level of completeness and/or level of detail for the phase/milestone being submitted
- A **Style** check to verify compliance with applicable CADD standards and style requirements.

Note: It is not intended that each of these checks be performed discretely, but rather the intent here is to describe the full scope of the Discipline QC Check activity.

Comments made by the Checker shall be documented, backchecked by the Originator, updated by an Updater, and verified by the Verifier. Records of Discipline QC Check shall be maintained. Procedures QP 06, Discipline QC Check and QP 05, Quality Check-Review Color Codes, and QP 20 Bluebeam QMS Review describe these processes in detail.

8.7 SENIOR TECHNICAL REVIEW

Senior Technical Reviews shall be performed on project design deliverables when required by the CDQM. It should be noted that Discipline QC Check shall be completed prior to engaging in Senior Technical Review. Senior Technical Reviews are performed by subject matter experts, independent of the design team, in order to review high risk and complex design elements. These reviews involve an independent review of project concepts and design methodology, and are intended to ensure that the design fulfills the intended use and that it meets the design criteria, project BIM requirements, or other contractual requirements. These reviews are also used to ensure that the design has been developed in accordance with applicable standards of professional practice.

All comments resulting from Senior Technical Review must be responded to, resolved, and verified. Records of Senior Technical Review shall be maintained. Procedure QP 07, Senior Technical Review and QP 20 Bluebeam QMS Review describe this process in detail.

8.8 INDEPENDENT DESIGN CHECK

Independent Design Check shall be performed on project design deliverables as required by the CDQM. It should be noted that Discipline QC Check shall be performed prior to engaging in Independent Design Check.

Independent Design Check shall be performed by a qualified individual independent of the production of the design, and may be conducted by another HNTB Office, an independent firm or a subconsultant as dictated by Contract Document requirements.

Independent Design Check is performed through the development of independent calculations, without reference to the original calculations. Calculations shall be based on the design drawings provided and shall not represent alternative design approaches or redesign. All comments resulting from Independent Design Check must be responded to, resolved, and verified. Records of Independent Design Check shall be maintained. Procedure QP 09, Independent Design Check describes this process in detail.



8.9 INTERDISCIPLINARY REVIEW

Interdisciplinary Review shall be performed on project design deliverables involving more than one discipline, and as defined in the CDQM. Interdisciplinary Reviews are performed by the Task Leads, or designees (including subconsultants, if applicable) to ensure consistency of the design between disciplines and segments; between design prepared by HNTB and its subconsultants; between design of the project and potential adjacent projects; between design of the project and the potential affected facilities owned by other stakeholders; and to prevent coordination errors in construction documents.

To ensure the effectiveness of Interdisciplinary Review, deliverable packages should not be submitted for Interdisciplinary Review until Discipline QC Check, Senior Technical Review (if applicable), and Independent Design Check (if applicable) have been completed and comments resolved and verified. All comments resulting from Interdisciplinary Review shall be responded to, resolved, and verified, and all impacted disciplines must participate in the review. Records of Interdisciplinary Review shall be maintained. Procedure QP 08, Interdisciplinary Review and QP 20 Bluebeam QMS Review describe this process in detail.

8.10 CONSTRUCTABILITY REVIEW

Constructability Review is performed by the Contractor in accordance with the CDQM. Constructability Review is performed to identify and address opportunities to improve the cost effectiveness of construction, the suitability of the design to construction means and methods, and the clarity of construction documents, while maintaining conformance with Contract Document requirements. All comments resulting from Constructability Review shall be responded to, resolved, and verified. Records of Constructability Review shall be maintained. Procedure QP 10, Constructability Review and QP 20 Bluebeam QMS Review describe this process in detail.

8.11 VISUAL CHECK

Visual Check is required on all deliverables. Visual Check is performed to ensure that the deliverables are complete, in order, and have been scanned, printed or converted as intended, and are representative of the electronic files that have been checked/reviewed, updated and verified in accordance with the DQMP. The DM shall notify the CADD Manager, BIM Manager, or designee, to scan, print/plot or convert the deliverable in accordance with Contract Document requirements. Visual Checkers shall check the scanned, printed/plotted or converted files to verify that the deliverable has been printed or converted as intended. Visual Checkers shall document the results of Visual Check and any noted issues shall be resolved by the CADD Manager, BIM Manager, or designee, and verified by the Visual Checkers. Records of Visual Check shall be maintained. Procedure QP 11, Visual Check describes this process in detail.

8.12 QA REVIEW

Quality Assurance Review or QA Review is required prior to submittal to the Client on all formal deliverables and shall be the last review completed in the series of quality checks and reviews as defined by the CDQM. It is important to note that QA Review activities may be started as soon as practical but cannot be considered complete until all other required checks and reviews have been completed, and resulting comments resolved and verified.



QA Review shall be performed by the DQAM. The DQAM shall review the CDQM to determine those quality control checks and reviews that were determined as required for the deliverable. Through examination of records of quality checks and reviews, the DQAM shall assess compliance with the DQMP and shall confirm the completion of required checks and reviews, including comment resolution and verification. The DQAM shall verify through the examination of subconsultant certifications (or subconsultant quality records, if necessary) that subconsultant deliverables have been checked/reviewed in accordance with the DQMP, or approved subconsultant quality plan. The DQAM shall verify that checks or reviews have been performed by independent and qualified Checkers as defined by the DM and Task Leads. The DQAM shall verify through the review of comment resolution documents that comments, on previous submittals, made by the Contractor and/or Owner have been resolved and verified as agreed upon, including verification that deferred comments from previous submittals have been addressed.

In addition to reviewing quality records, the DQAM shall perform spot check verification to confirm that verified changes have been incorporated in submittal documents.

The DQAM shall document the results of QA Review on Form QF 08, QA Review Record, and shall bring to the attention of the DM, PM, PEX, and the DBCE and CQO when necessary, any nonconformances with the DQMP or the CDQM, as well as any concerns over the implementation of the DQMP, unapproved additional concurrence of reviews, compressed review schedules, including excessive deferred comments or excessive Contractor and/or Owner comments, etc.

Dependent upon the nature of the nonconformance and the actions necessary to remedy, the DM and DQAM shall determine if any or all of the quality checks or reviews should be repeated prior to resubmission for QA Review. The DM, Task Lead, or designee, shall resolve any issues and provide the necessary evidence to the DQAM for verification. Upon successful completion of QA Review, when contractually required, the DQAM shall prepare a Certificate of DQMP Compliance (Form QF 07). Deliverables shall not be submitted to the client without successful completion of the QA Review. Records of QA Review shall be maintained. Procedure QP 12, QA Review describes this process in detail.

8.13 CLIENT/OWNER/THIRD PARTY REVIEW AND COMMENT

Upon submittal of project deliverables, the client/owner or third party (when involved) may make comments requiring response and resolution.

When Bluebeam is used to manage the client/owner/third party review process, the PM shall establish a Bluebeam Studio Session and invite client representatives to the session to review and comment on deliverables. Client comments shall be responded to by the PM, Designee or Task Leads within the Studio Session. When the PM, Designee, or Task Leads disagree with a client/owner/third party comment, the PM shall facilitate comment resolution. Task Leads shall make revisions to deliverables to address client comments and update within the Bluebeam Studio Session. Verification of incorporation of client comments shall be performed and documented within the Bluebeam Studio Session. Procedure QP 19, Bluebeam Client/Owner/Third Party Review describes this process in detail.

8.14 ISSUED FOR CONSTRUCTION

When comments have been received from client/owner/third party review process on the final design milestone submittal, designer reviews, responds and coordinates with client/owner/third party review to resolve all open comments (see QP19, Bluebeam Client-Owner-Third Party Review). All comments



must be resolved to satisfaction of the Design Quality Assurance Manager (DQAM); if any comments cannot be resolved, the issue is escalated to the PM for resolution with the Department.

After the comments from the final design milestone submittal have been addressed, the PM or designee reviews the package to confirm that design has been performed in accordance with Contract Requirements. The DQAM reviews the package to confirm the package has been reviewed in accordance with the DQMP and comments and questions have been resolved to the satisfaction of the Department. The DQAM then informs the PM that the package is ready for RFC.

8.15 QUALITY MANAGEMENT OF DESIGN CHANGES

Revisions or changes to design deliverables shall undergo the same quality check and review processes as defined within the DQMP, and the CDQM as the original deliverables. Consideration shall be given to the scope of the revision or change, however, and if such changes do not impact the design configuration, they may require only limited checking. The DM or Task Lead and DQAM shall agree upon limited checks or reviews when all the required checks and reviews for the deliverable, per the CDQM aren't warranted.

Records of Design Changes shall be maintained. Procedure QP 14, Control of Design Changes describes this process in detail.

9.0 DESIGN SERVICES DURING CONSTRUCTION (DSDC)

DSDC deliverables are defined below with their respective quality management requirements.

These deliverables shall be prepared in accordance with the respective HNTB Design-Build Guidelines:

[RFI Guidelines and Related Materials](#)

[Construction Submittal / Shop Drawing Guidelines and Related Materials](#)

[NDC Guidelines and Related Materials](#)

[FDC Guidelines and Related Materials](#)

[NCR Guidelines and Related Materials](#)

[As-Built Guidelines and Related Materials](#)

9.1 RESPONSES TO REQUESTS FOR INFORMATION (RFI)

All responses to RFIs require review by the DSDC Lead prior to transmittal.

9.1.1. Responses to Simple RFIs – Simple RFIs are those RFIs resulting in responses that provide minor clarification, with little or no calculations or engineering analysis required, driven by small changes with predictable changes in the outcome. Responses to Simple RFIs require:

- Discipline QC Check in accordance with QP06, with the Style Check portion of this check sufficing as the Visual Check for the response. For Simple RFIs, this may be performed by the DSDC Lead and must be documented with evidence of the name/date of the responder and the name/date of the reviewer to demonstrate independence. Evidence of completion of Discipline QC Check for the Simple RFI may be documented within an email with supplementary attachments where necessary. When email is utilized as the record of Discipline QC Check, the email evidence must be linked to the RFI response to support ready retrieval of the associated quality record. This is typically done using an RFI log.



- Periodic quality audit (suggest monthly), performed by the PQM to assure Discipline QC Check has been completed and documented. Results of quality audits must be documented.
- Upon review of the response by the DSDC Lead, a decision may be made to utilize the approach for a Complex RFI.

- 9.1.2. Responses to Complex RFIs** – Complex RFIs are those RFIs that result in changes to Contract Documents, requiring sketch, calculation or engineering analysis to address the request. Responses to Complex RFIs shall be listed on the Client Deliverable Quality Matrix and require:
- Discipline QC Check in accordance with QP06, and shall be performed by the appropriate Discipline Lead (preferably the Discipline Lead responsible for the original design). Records of Discipline QC Check shall be in accordance with permissible quality records per QP06, showing evidence of check, backcheck, update and verify steps.
 - Senior Technical Review in accordance with QP 07, and/or Interdisciplinary Review in accordance with QP 08, as determined by the DSDC Lead in concert with the PM, Discipline Lead, and with concurrence by the PQM. Records of Senior Technical Review and Interdisciplinary Review shall be in accordance with acceptable quality records per QP 07 and QP 08, showing evidence of check, backcheck, update and verify steps.
 - Visual Check in accordance with QP 11, may be performed by the DSDC Lead.
 - QA Review in accordance with QP 12, performed by the PQM and documented on QF 08, QA Review Record

All corresponding records of checks/reviews shall be maintained in accordance with QP 03, Control of Project Quality Records.

9.2 CONSTRUCTION SUBMITTAL/SHOP DRAWING REVIEWS

The purpose of the review of construction submittals or shop drawings is to determine general conformance with the design concept and contract documents, with responsibility for compliance remaining with the contractor. Construction submittals and shop drawings shall be reviewed by the Task Lead, the Design Manager, DSDC Lead, or other qualified individual designated by the Task Lead, or Design Manager, or DSDC Lead.

If such reviews are performed by designees without experience equivalent to the Task Lead, then either the Task Lead, or the Design Manager, or DSDC Lead shall review, and document, the designee reviewer's selected action code and review comments (if they exist). In all instances where comments provide design direction, review by the Design Manager or DSDC Lead is required. This review may be documented within an email with supplementary attachments where necessary. When email is utilized as the record of this review, email evidence must be linked to the submittal response to support ready retrieval of the associated quality record. This is typically done using a submittal log.

Construction submittal reviews shall be subject to periodic quality audit (suggest monthly), performed by the PQM to assure reviews have been performed by appropriately experienced personnel. Results of quality audits must be documented.

Records of these quality reviews of the action code and review comments shall be maintained in accordance with QP 03, Control of Project Quality Records.

9.3 NOTICES OF DESIGN CHANGES (NDC) AND FIELD DESIGN CHANGES (FDC)



All changes to design deliverables whether generated through a NDC or an FDC shall be documented on the Client Deliverable Quality Matrix and are subject to the same quality checks and reviews as the original design deliverable, inclusive of QA Review being performed by the PQM, as noted in the Client Deliverable Quality Matrix with corresponding records maintained in accordance with QP 03, Control of Project Quality Records.

9.4 RESPONSES TO NONCONFORMANCE REPORTS (NCR)

Responses to NCRs may involve deliverables such as review comments, calculations, engineering analysis, estimates, or recommendations. The quality checks and reviews performed on these deliverables is dependent upon the disposition proposed by the Contractor.

When the proposed disposition by the Contractor is to Accept-As-Is, or to Repair or Rework a quality review of the response is required. Quality review should be considered in instances when the disposition is to Replace in light of work that remains.

9.4.1. Responses to Simple NCRs - Simple NCRs are those NCRs resulting in responses that provide concurrence with proposed disposition with minor clarification, little or no calculations or engineering analysis required. Responses to Simple NCRs require:

- Discipline QC Check in accordance with QP06, with the Style Check portion of this check sufficing as the Visual Check for the response. For Simple NCRs, this may be performed by the DSDC Lead and must be documented with evidence of the name/date of the responder and the name/date of the reviewer to demonstrate independence. Evidence of completion of Discipline QC Check for the Simple NCR may be documented within an email with supplementary attachments where necessary. When email is utilized as the record of Discipline QC Check, the email evidence must be linked to the NCR response to support ready retrieval of the associated quality record. This is typically done using an NCR log.
- Periodic quality audit (suggest monthly), performed by the PQM to assure Discipline QC Check has been completed and documented. Results of quality audits must be documented.
- Upon review of the response by the DSDC Lead, a decision may be made to utilize the approach for a Complex NCR.

9.4.2. Responses to Complex NCRs – Complex NCRs are those NCRs requiring calculation or engineering analysis to address the request. Responses to Complex NCRs shall be listed on the Client Deliverable Quality Matrix and require:

- Discipline QC Check in accordance with QP06, and shall be performed by the appropriate Discipline Lead (preferably the Discipline Lead responsible for the original design). Records of Discipline QC Check shall be in accordance with permissible quality records per QP06, showing evidence of check, backcheck, update and verify steps.
- Senior Technical Review in accordance with QP 07, and/or Interdisciplinary Review in accordance with QP 08, as determined by the DSDC Lead in concert with the PM, Discipline Lead, and with concurrence by the PQM. Records of Senior Technical Review and Interdisciplinary Review shall be in accordance with acceptable quality records per QP 07 and QP 08, showing evidence of check, backcheck, update and verify steps.
- Visual Check in accordance with QP 11, may be performed by the DSDC Lead.
- QA Review in accordance with QP 12, performed by the PQM and documented on QF 08, QA Review Record.



All corresponding records of checks/reviews shall be maintained in accordance with QP 03, Control of Project Quality Records.

9.5 RECORD DRAWINGS/AS-BUILTS

The contractor shall provide marked up drawings (including incorporated changes), specifications or both (representing the Work as constructed) upon completion of construction on a particular design package or unit.

The party responsible for signing/sealing the documents, or designee, shall incorporate the noted revisions into the corresponding drawings and/or specifications.

Record Drawings shall be subject to:

- Discipline QC Check in accordance with QP06 to insure redlines have been incorporated properly, with the Style Check portion of this check sufficing as the Visual Check. For Record Drawings, this may be performed by the DSDC Lead. Records of Discipline QC Check shall be in accordance with acceptable quality records per QP 06, showing evidence of check, backcheck, update and verify steps.
- Periodic quality audit (suggest monthly), performed by the PQM to assure Discipline QC Check has been completed and documented. Results of quality audits must be documented.

All corresponding records of checks/reviews shall be maintained in accordance with QP 03, Control of Project Quality Records. Record Drawings shall be submitted to the contractor for review to verify that Record Drawings include all deviations in the constructed Work with respect to the latest design documents. Contractor comments shall be documented, resolved, and verified in accordance with Procedure QP 13, Client Review and Comment.

10.0 QUALITY AUDIT

When contractually required, when requested by project leadership, or at the direction of HNTB Corporate, Design-Build, Division, or Office, Quality Audits shall be conducted to verify implementation of the DQMP and may include quality audits of subconsultants. Auditors shall be independent of the activity being reviewed.

10.1 QUALITY AUDIT SCHEDULE

Quality Audit schedules shall be developed such that a variety of project elements can be audited over the duration of the project, may be based upon previous audit results, and may be adjusted to address critical issues.

10.2 QUALITY AUDIT PREPARATION

The quality auditor shall schedule a quality audit by working with the PM, DM or DSDC PM and DQAM, in advance of the audit, to determine an appropriate time to conduct the audit. The PM, DM or DSDC PM shall be notified of the scope of the audit, potential participants, and approximate duration of the quality audit. The Quality Auditor may prepare QF 18, Quality Audit Plan to advise the auditees of the scope and schedule of the audit.

The DQAM may also utilize the quality audit process to perform a deeper investigation into DQMP



implementation or quality performance of HNTB or subconsultant design teams.

Quality auditors shall review documentation to familiarize themselves with the specified requirements, such as contract documents relative to the scope of services, and the DQMP.

The quality auditor should also review the previous quality audit report (if one exists) to determine areas of follow-up, inclusive of resulting corrective or preventive improvement actions.

10.3 OPENING MEETING

Quality auditors shall conduct an opening meeting, inviting the PM, DM or DSDC PM, and DQAM, Task Leads and any other project team members that may be applicable to the scope of the quality audit. The purpose of the opening meeting is to go over the scope and duration of the audit, the identification of any other potential participants, the handling of observations, findings and improvement opportunities, timing for the closing meeting, and content and expected date of quality audit report. Participant attendance at the opening meeting shall be captured on Form QF 11, Quality Audit Roster.

10.4 CONDUCTING THE QUALITY AUDIT

Quality audits shall be conducted in a professional and courteous manner. As it is the objective of the quality audit program to identify improvement opportunities and proactively mitigate risk, the professional manner in which the review is conducted serves to communicate this intent and to facilitate an environment of continual improvement.

Quality auditors shall conduct the quality audit using Form QF 12, Quality Audit Checklist, but shall not be limited to those questions on the checklists. Quality audits shall include interviews as well as examination of objective evidence. Quality auditors shall be free to follow the audit trail to accurately and thoroughly assess intent and compliance to specified requirements. During the quality audit, the quality auditor shall alert the participants to any potential findings to allow the participant to present additional information and to ensure that potential findings are understood and reflect actual observed conditions.

It is important to note that findings may point to necessary improvements to the DQMP, or design quality management activities.

Quality auditors shall maintain their completed checklist, supporting documentation and comments made during the quality audit to support review conclusions.

10.5 CLOSING MEETING

Quality auditors shall conduct a closing meeting (this meeting may not be necessary if the audit results in no findings), inviting the PEX, PM, DM or DSDC PM, DBCE, CQO, DQAM, Task Leads and any other project team members that participated in the quality audit. The purpose of the closing meeting is to review findings, observations, and improvement opportunities, the handling of findings, and the content and expected date of quality audit report. Participant attendance at the closing meeting shall be captured on Form QF 11, Quality Audit Roster.

10.6 QUALITY AUDIT REPORT

The quality auditor shall prepare a quality audit report using Form QF 13, Quality Audit Report, and shall



submit the quality audit report to the PEX, PM, DM or DSDC PM, DBCE, DQAM, OL, OQM, DQM and the CQO. Findings shall be handled in accordance with Section 11.1 of this Manual, Corrective and Preventive Action.

The quality audit report and roster shall be maintained as quality records.

11.0 CONTINUAL IMPROVEMENT, CORRECTIVE AND PREVENTIVE ACTION

Continual improvement will be managed through the execution of a Corrective and Preventive Action System. Nonconformances and potential nonconformances may be realized through results of QA Review, quality audits, Contractor or Owner satisfaction, monthly project reviews, nonconformance trends, or improvement ideas.

11.1 CORRECTIVE AND PREVENTIVE ACTION

Corrective action shall be taken to identify the root cause of confirmed nonconformances and subsequent determination and implementation of an action plan sufficient to prevent recurrence of the nonconformance.

Preventive action shall be taken to identify the root cause of potential nonconformances and subsequent determination and implementation of an action plan sufficient to prevent occurrence of the potential nonconformance.

In both cases, verification activities shall occur to assure that approved action plans have been taken and proven effective to prevent recurrence or occurrence of the root cause prior to closure.

- 11.1.1** Upon notice of a potential corrective or preventive action opportunity, anyone on the project team may serve as an Originator and may submit a corrective/preventive action request (CAR/PAR).
- 11.1.2** The Originator shall submit a corrective/preventive action request by filling out Form QF 15, Corrective/Preventive Action Request describing the nonconformance or potential nonconformance in sufficient detail, and the name of the Responsible Manager with responsibility and authority to address the issue and submit to the DQAM.
- 11.1.3** The DQAM shall issue to the CAR/PAR to the Responsible Manager with a response due within 14 calendar days.
- 11.1.4** The Responsible Manager shall determine and enter into Form QF 15, Corrective/Preventive Action Request, the date of response, root cause of the nonconformance or potential nonconformance, an action plan sufficient to prevent recurrence or occurrence, and the date upon which the action plan will be implemented.
- 11.1.5** The DQAM shall review the root cause, action plan and implementation date to determine if indeed root cause has been determined, that the action plan appears sufficient to prevent recurrence or occurrence, and that the implementation date is reasonable in terms of program objectives, client or stakeholder requirements, and schedule, and approve the response.
- 11.1.6** Upon implementation, the DQAM shall take appropriate actions to verify that the action plan



was indeed implemented and that it was effective to resolve the nonconformance or potential nonconformance, and at that point shall close the CAR/PAR. The Responsible Manager may be required to submit data or other verification information to support this decision.

11.1.7 CAR-PAR records shall be maintained.

12.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen	12/28/2022	Original Release



HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 01
Quality Planning	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities and process by which client deliverables are identified and the applicable quality check and review activities associated with each deliverable are determined. This procedure also defines the roles, responsibilities, and process by which Design Quality Management Plans (DQMP) are created.

2.0 SCOPE

This procedure shall apply to design-build projects and covers defining the necessary quality check and review activities for all contractual deliverables to a client, at each phase of the project, and the development of a DQMP for each project.

3.0 REFERENCES

3.1 Procedure QP 02, Project Quality Plan Training

3.2 Procedure QP 03, Control of Project Quality Records

4.0 ROLES and RESPONSIBILITIES

4.1 Project Manager (PM) – The PM, or designee, shall be responsible for:

- 4.1.1 Reviewing the contract or work plan and identifying all contractual client deliverables.
- 4.1.2 Determining, in concert with the DQAM, the Task Leads, and as necessary, the Divisional/National Practice/Market Sector Lead, the required quality check and review activities that shall be carried out for each deliverable.
- 4.1.3 When required by contract, submitting the DQMP to the client for review and approval.
- 4.1.4 Supporting the DQAM in the development of the DQMP when necessary.

4.2 Design Quality Assurance Manager (DQAM) - The DQAM shall be responsible for:

- 4.2.1 Working with the PM and Task Leads and providing concurrence to the required quality check and review activities.
- 4.2.2 Documenting the deliverables and the required quality checks and reviews within Form QF 02, Client Deliverable Quality Matrix, and updating this matrix as project conditions dictate.
- 4.2.3 Ensuring that Task Leads have access to and are trained or made aware of the matrix and the required checks for each deliverable.
- 4.2.4 Developing the DQMP, with assistance by the PM when necessary.
- 4.2.5 Submitting the DQMP to the DBCE and CQO for review and approval.
- 4.2.6 Revising and resubmitting the DQMP if necessary, to address review comments.

4.3 Design-Build Chief Engineer (DBCE) – The DBCE shall be responsible for review and approval of the DQMP.

4.4 Corporate Quality Officer (CQO) – The CQO shall be responsible for review and approval of the DQMP.

4.5 Task Leads – The Task Leads shall be responsible for:

- 4.4.1 Working with the PM and DQAM to determine the required quality check and review activities for deliverables and consulting with Divisional/National Practice/Market Sector Leads when necessary.

4.6 Divisional/National Practice/Market Sector Leads – The Divisional/National Practice/Market Sector Leads, when requested, shall be responsible for:

- 4.5.1 Working with the PM to determine the required quality check and review activities for each deliverable, with specific attention to potential Senior Technical Review and Independent Design Check activities.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 01
Quality Planning	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 5
Project Name: ATMP Roadway Improvement Project		Project No.. 71473	

5.0 PROCEDURE

- 5.1 The PM in concert with the DQAM and Task Leads shall review the contract documents or work plan and shall identify each deliverable required to be submitted to the client. Deliverables shall be identified for each phase of the project and shall be inclusive of client deliverables prepared by HNTB as well as subconsultants. Consideration shall be given to interim deliverables for which quality reviews must occur to support formal deliverables. Deliverables shall also be broken down to a level to support all necessary reviews.
- 5.2 Once identified, the DQAM shall enter the deliverables into Form QF 02, Client Deliverable Quality Matrix.
- 5.3 The PM in concert with the DQAM, and Task Leads shall determine the required quality checks and reviews to be completed prior to submittal for each deliverable and shall document the required checks and reviews within the matrix. Required quality checks and reviews, along with qualified resources, shall also be determined during Contract Work Planning sessions.
 - 5.3.1 The Discipline QC Check, Visual Check, and QA Review are mandatory for all deliverables, and Interdisciplinary Review is mandatory for all deliverables involving more than one discipline. Other reviews such as Over the Shoulder Review, Senior Technical Review, Independent Design Check, and Constructability Review shall be applied to deliverables as required by the client and/or based upon complexity and risk.
 - 5.3.2 Dependent upon project scope, previous successful experience of the local office on similar projects, client sensitivity and project risk, the PM, DQAM, and Task Leads may consult National/Divisional Practice and Market Sector Leads in the determination of appropriate quality checks and reviews such as Senior Technical Review and Independent Design Check (including the identification of appropriately qualified resources to perform those reviews).
 - 5.3.3 The DQAM with input from the PM and Task Leads shall enter date upon which quality checks/reviews shall begin and end in order to fulfill the deliverable dates. An adequate time for quality checks/reviews shall be afforded dependent upon the volume and complexity of the deliverable being checked/reviewed. Time afforded for quality checks and reviews shall include time to perform the checking/review activity as well as time to resolve and verify comments. Dates should be backed out from the QA Review date such that ample time is provided for completion of the QA Review prior to submittal of the deliverable to the client.
 - 5.3.4 The Client Deliverable Quality Matrix shall be completed prior to Work Plan approval and shall be noted on and included with the Work Plan Approval Form.
- 5.4 The PM in concert with the DQAM, and CQO/DBCE when needed, shall determine any necessary customization to the DQMP based upon contractual requirements.
 - 5.4.1 The DQAM, with assistance by the PM and CQO/DBCE if necessary, shall develop the elements of the DQMP requiring customization using the custom DQMP templates as the basis for project specific tailoring. Tailoring may require reorganization, incorporation of project specific roles, more stringent client, or project requirements, or to accommodate client engagement, but in no case, shall tailoring result in a DQMP less stringent than the HNTB QMS.
 - 5.4.2 The DQAM shall complete Form QF 01, Project Quality Plan Approval Form and include the custom elements of the DQMP along with the completed Form QF 02, Client Deliverable Quality Matrix and submit it to the DBCE and CQO for review and approval.
 - If required by contract, the PM shall submit the DQMP to the client for review and approval.
 - The PM and DQAM shall work together to resolve client comments and resubmit if necessary, gaining assistance from the CQO/DBCE when needed.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 01
Quality Planning	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

- The Project Quality Plan Approval Form shall be completed and approved by the DBCE/CQO in accordance with the project deliverable schedule, or by the first monthly Project Review, and prior to the first occurrence of quality checks and reviews.

5.5 Based upon the scope of subconsultant deliverables, specialized expertise involved, and the integration of those deliverables with HNTB deliverables, the PM and DQAM shall determine whether subconsultants will be requested to adopt the HNTB DQMP or whether the subconsultant may follow a quality plan of their own.

5.5.1 If it is determined that subconsultants will be requested to adopt the HNTB DQMP, the DQAM shall provide a copy of the approved DQMP to the subconsultant in sufficient time to support subconsultant scope, schedule, and fee development, and shall include the subconsultant in DQMP training in accordance with Procedure QP 02, Project Quality Plan Training.

5.5.2 If it is determined the subconsultants will follow a quality plan of their own, the DQAM shall review and approve the subconsultant QP, using Form QF 16, Subconsultant Quality Plan Approval Form, or Form QF 17, Subconsultant Quality Plan Coversheet (in instances when the subconsultant does not have a documented quality plan of their own).

- Subconsultant quality plans must be reviewed and approved in advance of subconsultant agreement execution to assure required quality management activities have been incorporated and included within subconsultant work plans.
- Accepted subconsultant quality plans, and approval records shall be filed in accordance with Procedure QP 03, Control of Project Quality Records.

5.6 Upon approval of the DQMP, the DQAM shall file the DQMP in accordance with Procedure QP 03, Control of Project Quality Records

5.6.1 The following documents shall be filed and made available to project team members, including other supporting HNTB offices:

- PQP inclusive of Project Quality Manual, Project Quality Procedures, and Project Quality Forms.
- Form QF 01, Project Quality Plan Approval Form (showing evidence of approval).
- Form QF 02, Client Deliverable Quality Matrix.
- Evidence of client approval, if required.

5.7 Should project conditions dictate, the DQAM shall revise the DQMP and submit for review and approval in accordance with this procedure.

6.0 QUALITY RECORDS

6.1 Form QF 01, Project Quality Plan Approval Form

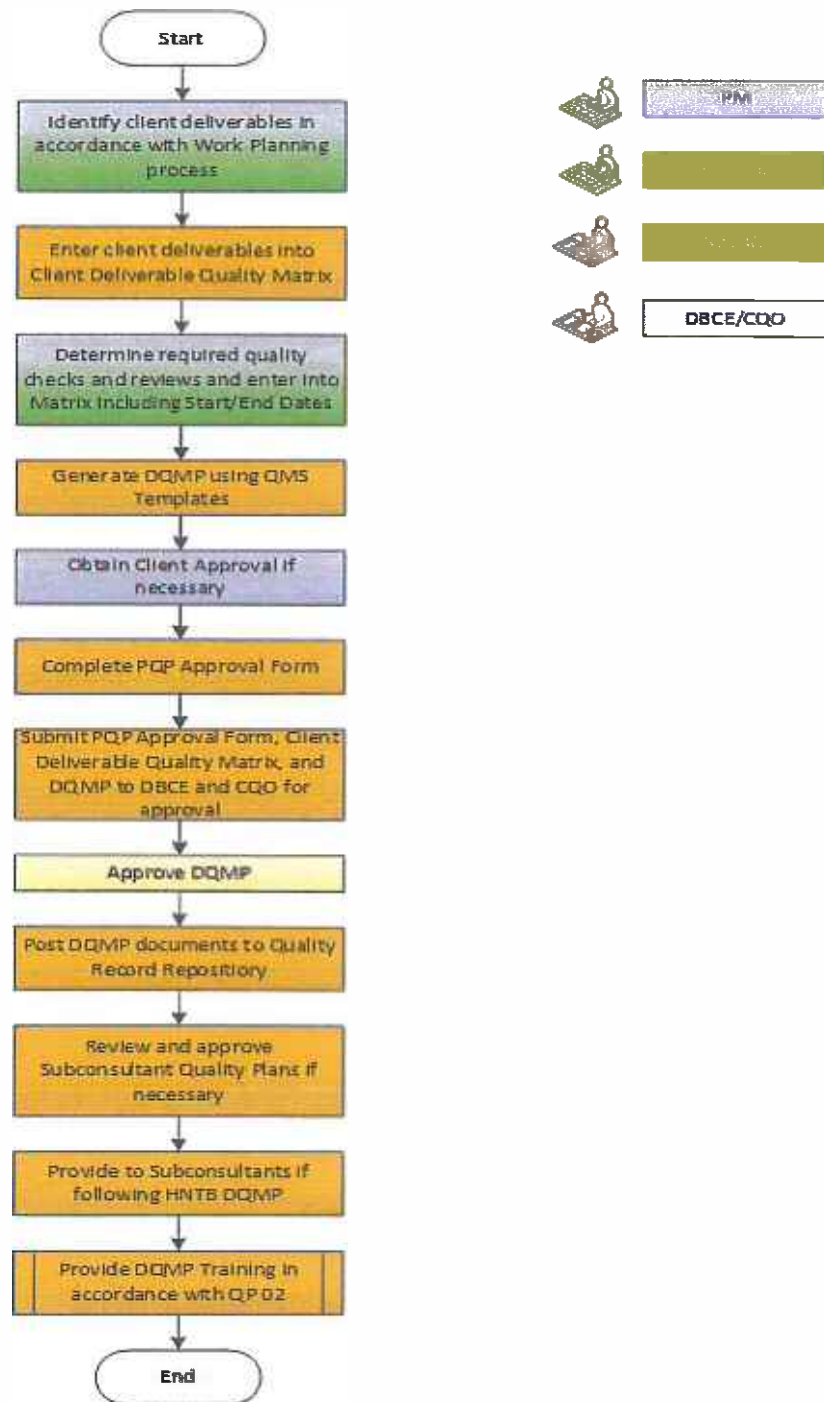
6.2 Form QF 02, Client Deliverable Quality Matrix

6.3 Form QF 16, Subconsultant Quality Plan Approval Form

6.4 Form QF 17, Subconsultant Quality Plan Coversheet

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 01
Quality Planning	Revision Number: 0	Revision Date: 6/19/23	Page 4 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

7.0 FLOWCHART



HNTB	Prepared by: Kelly Lumen	Approved by: Lily Acuña	Document number: QP 01
Quality Planning	Revision Number: 0	Revision Date: 6/19/23	Page 5 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 02
Project Quality Plan Training	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 2
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities, and process for conducting Design Quality Management Plan (DQMP) training. The purpose of design quality management plan training is ensure that all project team members (including other HNTB offices and subconsultants, if following the HNTB DQMP) have an understanding of the DQMP including a detailed knowledge of the required quality checks and reviews to be completed on each deliverable prior to submittal to the client. Quality plan training should also ensure that project team members know where and how project quality records are to be stored.

2.0 SCOPE

This procedure shall apply to all design-build projects. Training on the DQMP shall be provided as soon as possible after NTP, prior to applicable quality checks/reviews, and shall include those responsible for producing deliverables and performing quality checks and/or reviews, including those in other HNTB offices and subconsultants and client team members (if applicable). Records of DQMP training shall be maintained.

3.0 REFERENCES

3.1 Procedure QP 01, Quality Planning

3.2 Procedure QP 03, Control of Project Quality Records

4.0 ROLES and RESPONSIBILITIES

4.1 Project Manager (PM) -- The PM shall be responsible for:

- 4.1.1 Ensuring appropriate schedule and budget for DQMP training has been included in the Work Plan (including staff from other HNTB offices and subconsultants, if applicable).
- 4.1.2 Making the DQAM aware of the project team members and notifying the DQAM when new members join the project team.

4.2 Design Quality Assurance Manager (DQAM) – The DQAM shall be responsible for:

- 4.1.1 Developing training materials.
- 4.1.2 Inviting attendees to training sessions and making determination to hold local or remote sessions.
- 4.1.3 Providing training on the DQMP to project team members, including those in other HNTB offices and subconsultants and client team members (as applicable).
- 4.1.4 Maintaining records of DQMP training.
- 4.1.5 Monitoring compliance with the DQMP to identify any refresher training needs.

4.3 Task Leads - The Task Leads shall be responsible for:

- 4.2.1 Verifying that all team members within their discipline receive DQMP training as soon as possible upon assignment to the project.
- 4.2.2 Notifying the DQAM when new members join the project team.
- 4.2.3 Assisting the DQAM in monitoring compliance with the project quality plan to identify any refresher training needs.

4.4 Project Team Members – The project team members shall be responsible for:

- 4.3.1 Participating in DQMP training and signing attendance roster or other record of attendance.
- 4.3.2 Requesting refresher training, if needed.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 02
Project Quality Plan Training	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 2
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

5.0 PROCEDURE

- 5.1 As soon as possible upon NTP, and prior to any required quality checks or reviews, the DQAM shall schedule training on the project quality plan. DQMP Training must be provided on all new projects, task orders, work authorizations, etc. Attendees of the DQMP training shall include the project team members responsible for production and/or quality checks and reviews of deliverables, including project team members from other HNTB offices, and subconsultants or client team members if they are required to follow the HNTB DQMP.
- 5.2 The training may be performed in the venue or format suitable to the location of the project team members (e.g. classroom training, webinar, etc.), the level of detail to be provided, and shall cover the elements of the DQMP with specific attention to:
 - 5.2.1 Client specific requirements
 - 5.2.2 Client Deliverable Quality Matrix
 - 5.2.3 Procedures for required quality checks and reviews
 - Quality Checking Color Codes
 - Checklists to be used
 - 5.2.4 QA Reviews
 - 5.2.5 Quality Records showing evidence of required quality checks/reviews
 - 5.2.6 Project Quality Record repository
 - 5.2.7 Lessons learned from similar projects
- 5.3 Project team members shall sign Form QF 03, Attendance Roster, or other appropriate attendance record, to indicate completion of the training.
- 5.4 As new members join the project team, the PM or Task Leads shall notify the DQAM who shall schedule and conduct recurring PQP training. For recurring training, it is permissible to instruct team members to view a recorded training session, sign a training roster, and seek out the DQAM with any questions or needed clarification. When a recorded session is used, the DQAM shall follow up to assure requirements are understood.
- 5.5 DQMP training shall be repeated as projects transition between phases as team members and deliverables change.
- 5.6 The DQAM and Task Leads shall routinely monitor compliance with the DQMP to identify any refresher training needs.
- 5.7 The DQAM shall maintain records of DQMP training in accordance with Procedure QP 03, Control of Project Quality Records.

6.0 QUALITY RECORDS

- 6.1 Form QF 03, Attendance Roster
- 6.2 WebEx Attendance records, or other records of DQMP Training participation

7.0 FLOWCHART – N/A

8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 03
Control of Project Quality Records	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 3
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities, and process for the filing of project quality records. Project quality records are those records that provide evidence of compliance with the Design Quality Management Plan (DQMP).

2.0 SCOPE

This procedure shall apply to project quality records generated through the execution of the DQMP on all design-build projects. Project quality records are determined through the scope of the DQMP, but include in general:

- DQMP
- Project Quality Plan Approval Form
- Subconsultant Quality Plans
- Subconsultant Quality Plan Approval Form
- DQMP Training Records
- Client Deliverable Quality Matrix
- Approved Design Criteria/Basis of Design
- Over the Shoulder Review Records
- Discipline QC Check Records
- Senior Technical Review Records
- Independent Design Check Records
- Interdisciplinary Review Records
- Constructability Review Records
- Visual Check Records
- QA Review Records
- Subconsultant Quality Records/Certificates of Compliance
- Client/Owner/Third Party Comment Resolution Records
- Quality Audit Reports
- Corrective and Preventive Action Reports

3.0 REFERENCES

- 3.1 Appendix A, Project Quality Record Filing Structure
- 3.2 Procedure QP 02, Project Quality Plan Training
- 3.3 Procedure QP 12, QA Review

4.0 ROLES and RESPONSIBILITIES

4.1 Project Manager (PM) – The PM, or designee, shall be responsible for:

- 4.1.1 Establishing a record repository for the filing of project quality records. Note: The repository for project quality records may be part of an overall record repository for the project.
- 4.1.2 Working with the DQAM to establish a file folder index or metadata, and naming convention (if required) for organization of project quality records
- 4.1.3 Establishing/communicating the record retention schedule in accordance with project, client, and/or state/federal requirements.
- 4.1.4 Working with the client to ensure requirements for transition of project quality records to the client at the completion of the project are known.

4.2 Design Quality Assurance Manager (DQAM) – The DQAM shall be responsible for:

- 4.2.1 Working with the PM to establish a file folder index or metadata, and naming convention

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 03
Control of Project Quality Records	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 3
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

- (if required) for organization of project quality records
- 4.2.2 Including the filing index/folder structure, or metadata, and naming convention (if required) for project quality records within the DQMP and training project team members on same.
- 4.2.3 Performing assessments during QA Review to assure that project quality records are being filed, organized or named in accordance with requirements.
- 4.3 Project Team Members/Document Control Staff** - The Project Team Members and/or Document Control Staff shall be responsible for:
- 4.3.1 Filing project quality records in accordance with the established filing index/folder structure, or metadata, and using appropriate naming conventions (if required).

5.0 PROCEDURE

- 5.1 The PM, or designee, shall determine and establish an electronic repository for the filing of project quality records suitable to protect the integrity of the records. Examples of project quality record repositories are: SharePoint, ProjectWise, HNTB file servers, etc.
- 5.2 The PM and DQAM shall review the client requirements relative to project quality records and the Client Deliverable Quality Matrix to identify the filing index/folder structure or metadata that will be necessary to facilitate ready retrieval when necessary.
- 5.2.1 Folders or metadata for project quality records should be based on the deliverable and phase or milestone associated with the project, and the type of quality check/reviews required.
- 5.2.2 If the client/contract has not specified a filing index/folder structure, the suggested filing structure for project quality records can be found in Appendix A of this procedure.
- 5.3 The PM and DQAM shall also establish a naming convention for project quality records if required by contract, or deemed necessary to facilitate record retrieval.
- 5.4 Once established, the DQAM shall include the file index/folder structure or metadata requirements in the DQMP and shall train project team members on the same as part of DQMP training in accordance with Procedure QP 02, Project Quality Plan Training.
- 5.5 As the project is executed and quality activities are conducted in accordance with the PQP, Project Team Members and/or Document Control Staff shall name/file project quality records in accordance with the PQP file index.
- 5.6 The DQAM shall conduct periodic reviews to ensure project quality records are named and filed in accordance with the PQP, and shall also conduct these reviews as part of the QA Review in accordance with Procedure QP 12, QA Review.
- 5.7 Project quality records shall be maintained for the retention period required by HNTB, the contract, State or Federal requirements.

6.0 QUALITY RECORDS – N/A

7.0 FLOWCHART – N/A

8.0 REVISION HISTORY

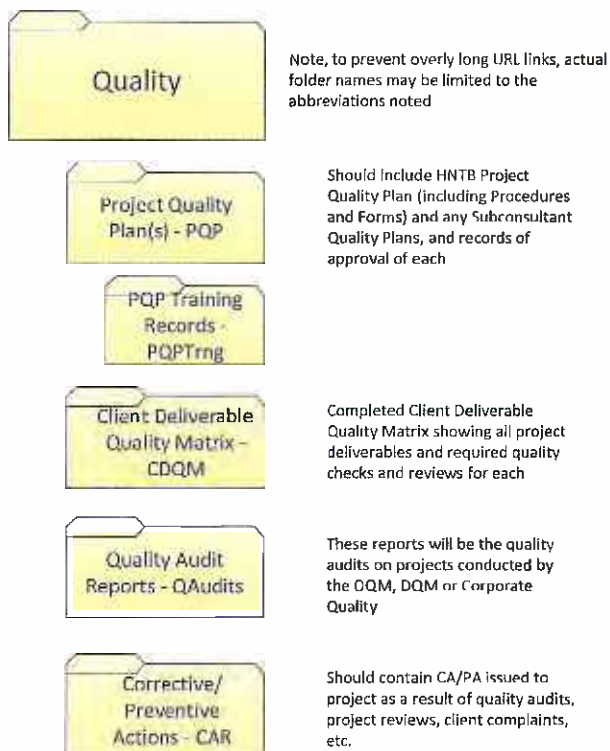
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0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 03
Control of Project Quality Records	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 3
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

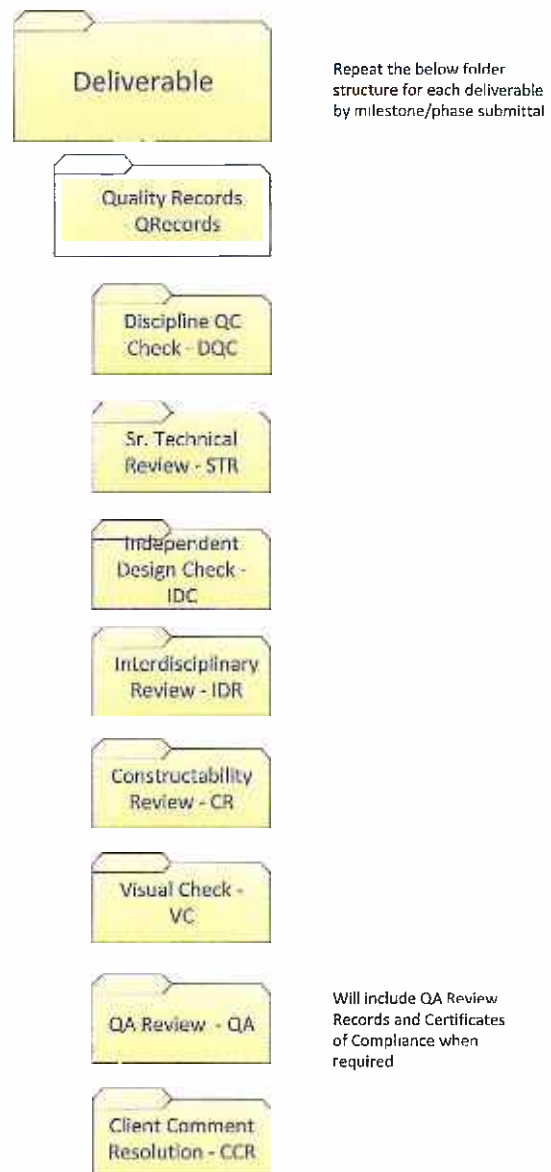
Appendix A

Project Quality Record Filing Structure

Maintained on Project SharePoint Site



Maintained with Deliverables



HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 04
Over the Shoulder Reviews	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 3
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities and process for facilitating and responding to Over the Shoulder (OTS) Reviews of project deliverables. OTS Reviews provide an informal opportunity prior to formal submittals to review progress, to ensure client and/or potentially third-party requirements are being implemented as planned. OTS Reviews also serve to identify and potentially address issues relative to the cost-effectiveness of construction, and to verify the suitability of the design to intended means and methods.

2.0 SCOPE

This procedure shall apply to interim deliverables, when contractually required, and in other cases when deemed advantageous by the Project Manager and supported by the client/third party, such as in the case of multiple stakeholders, and/or a variety of preferences or alternatives are involved. When OTS Reviews are required, they shall be captured in the Client Deliverable Quality Matrix. OTS Review comments shall be documented and provided to the Task Leads to ensure they are addressed in the next submittal, but resolution and verification are not typically documented at this time. The verification of OTS Review comments occurs as part of the Discipline QC Check on the next milestone submittal.

3.0 REFERENCES

3.1 Procedure QP 03, Control of Project Quality Records

3.2 Procedure QP 06, Discipline QC Check

3.3 Procedure QP 12, QA Review

4.0 ROLES and RESPONSIBILITIES

4.1 Project Manager (PM) – The PM, or designee, shall be responsible for:

- 4.1.1 Determining the appropriate points in the development schedule for OTS Reviews and communicating those requirements to the Task Leads and the client and/or third party.
- 4.1.2 Working with the client and Task Lead to resolve any unresolved OTS Review comments.

4.2 Design Quality Assurance Manager (DQAM) – The DQAM shall be responsible for:

- 4.2.1 Documenting necessary OTS Reviews in the Client Deliverable Quality Matrix.
- 4.2.2 Verifying that OTS Review comments have been resolved and verified during QA Review

4.3 OTS Reviewers – OTS Reviewers shall be responsible for:

- 4.3.1 Documenting their review comments.

4.4 Task Lead – The Task Lead shall be responsible for:

- 4.4.1 Scheduling/facilitating the OTS Review.
- 4.4.2 Responding to and resolving OTS Review comments.
 - Working with the client and/or third party to understand OTS Review comments.
 - Elevating unresolved differences to the PM for resolution.
- 4.4.3 Incorporating agreed upon revisions in the next formal deliverable submittal.
- 4.4.4 Maintaining records of OTS Reviews.

5.0 PROCEDURE

5.1 In accordance with contract requirements or other advantageous situations, (such as when

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 04
Over the Shoulder Reviews	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 3
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

multiple stakeholders, and/or a variety of preferences/alternatives are involved) the PM shall determine the packages and appropriate points in the development schedule for OTS Reviews and communicate these requirements to the DQAM and Task Leads. The PM shall also ensure necessary OTS Reviews are reflected within the project schedule.

5.1.1 The DQAM shall document the necessary OTS Reviews in the Client Deliverable Quality Matrix.

5.2 The Task Lead, or designee, shall compile the interim deliverable package and shall submit it for OTS Review.

5.3 OTS Reviewers shall review the interim deliverable package to ensure client and/or potentially third party requirements are being implemented as planned. In the case of design-build projects, OTS Reviewers shall also review issues relative to the cost-effectiveness of construction, and verify the suitability of the design to intended means and methods.

5.4 OTS Reviewers, or the Task Lead/Designer, shall document the review comments. Comments shall be detailed enough to facilitate understanding by the Task Lead for resolution.

5.4.1 OTS Reviewers, or the Task Lead/Designer, shall document their review comments on Form QF 04, Comment Resolution Form, directly on hardcopy CheckPrints, or within Bluebeam.

5.5 The Task Lead shall review all the OTS Reviewers comments. If the Task Lead disagrees with the nature of the OTS Review comment, they shall discuss with the OTS Reviewer and come up with an agreed upon solution. If disputes continue, the issue shall be escalated to the PM for resolution.

5.6 The Task Lead, or designee, shall make the necessary revisions within the next formal deliverable submittal to address OTS review comments. Verification of OTS comments shall be performed as part of Discipline QC Check of the next formal deliverable submittal in accordance with QP 06, Discipline QC Check.

5.7 The DQAM shall verify that OTS comments have been resolved and verified as indicated in accordance with QP 12, QA Review.

5.8 The Task Lead shall maintain OTS review comments in accordance with Procedure QP 03, Control of Project Quality Records.

6.0 QUALITY RECORDS

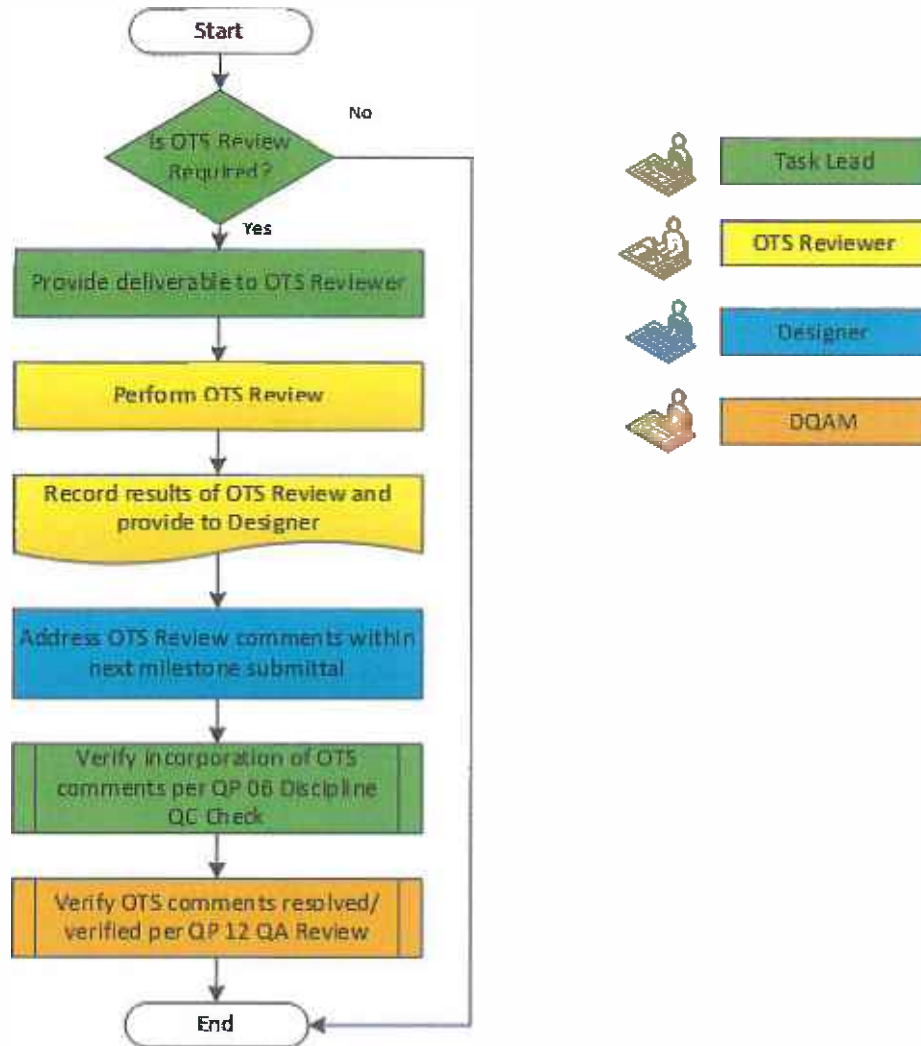
6.1 Hardcopy CheckPrints

6.2 Form QF 04, Comment Resolution Form

6.3 Bluebeam markup and Summary Log

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 04
Over the Shoulder Reviews	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 3
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

7.0 FLOWCHART



8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 05
Quality Check/Review Color Codes	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 3
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles and colors to be utilized for electronic or hard copy quality check or review of project deliverables.

2.0 SCOPE

This procedure shall apply to all quality check or review activities performed on electronic or hardcopy CheckPrints of project deliverables, inclusive of plans, calculations, reports, specifications, etc. Note: When performing quality check/review via MS Products, there is no need to adhere to this color scheme, however, roles of parties must be identified.

3.0 REFERENCES

4.0 ROLES and RESPONSIBILITIES

- 4.1 Originator** – The Originator shall be responsible to prepare and submit the deliverable for checking.
- 4.2 Checker** - The Checker shall be responsible to check the deliverable and shall note correct items and items in error on the CheckPrint using the colors assigned below.
- 4.3 Backchecker** – The Backchecker (typically the Originator) shall be responsible to review the comments made the by Checker and document agreement or disagreement with Checker comments on the CheckPrint using the color assigned below.
- 4.4 Updater** – The Updater (may be the Originator) shall be responsible for making changes or corrections to the deliverable and for noting such corrections on the CheckPrint using the color assigned below.
- 4.5 Verifier** - The Verifier (must be the Checker or another qualified independent party, i.e. not Originator, Backchecker, or Updater, when the Checker is unavailable) shall verify that all agreed upon corrections have been made, and for noting such verification on the CheckPrint using the color assigned below.

5.0 PROCEDURE

- 5.1** When project deliverables are submitted for quality check or review and these reviews are performed utilizing an electronic or hardcopy CheckPrint, the colors and markings shown in the below table shall apply to each of the identified roles in the quality check or review process: In addition, when signing the hardcopy CheckPrint Stamp, each individual shall sign in the color assigned for their role. Note: When Check, Backcheck, Update and Verify are performed on a MS Word deliverable using Track Changes, adherence to this color scheme is not required as MS Word Track Changes assigns a distinct color to each editor.

Color	Instructions	Checker	Backchecker	Updater	Verifier
Yellow	Highlight items that are correct Note: It is not mandatory for the Checker to highlight all correct items in Yellow, especially in the case of electronic review. But in the case where a sheet would otherwise have no markings, a Yellow diagonal slash across the sheet or a notation of no	♦			♦

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 05
Quality Check/Review Color Codes	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 3
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

	comments must be made to provide evidence of review.				
Red	Line out incorrect items and show corrections/additions	◆			
Black	Written comments with initials, clouded. Black shall also be used by the Verifier when signing the CheckPrint Stamp.	◆			
Green	Place a Check Mark next to Red items if in agreement Strikethrough Red items and write "STET" (meaning to disregard the change) if in disagreement		◆		
Blue	Circle Red and Green marks as items are updated or corrected			◆	

An example of the use of these marking is shown below:

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 05
Quality Check/Review Color Codes	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 3
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

Originate:
(Originator)
Printed or copied reports, calculations, drawings, or other similar original. Not printed in Red, Yellow, Blue or Green.

Check:
(Checker)
Yellow is used for correct items. Red for corrections, additions or deletions.

Corrections
↑
Additions or Deletions changes

Backcheck:
(Originator)
Green check mark for agreement.

Corrections
↑
Green STET and cross out when it is agreed that no change should be made.
Additions or Deletions STET changes

Update:
(Originator or Updater)
Blue circle when updated.

Corrections
↑

Validate:
Yellow over red, green and blue to indicate that the item was updated correctly.

Verify:
(Checker)

Corrections
↑
Additions or Deletions STET changes

6.0 QUALITY RECORDS

6.1 CheckPrints (electronic or hardcopy)

7.0 FLOWCHART – N/A

8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 06
Discipline QC Check	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 9
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities, and process for the detailed discipline specific QC check of project deliverables. Discipline QC check involves the performance of the following checks:

- **Conformance Check** to ensure project deliverables meet design criteria and/or other related technical requirements, and to ensure project elements are consistently developed between various deliverable formats.
- **Accuracy Check** to ensure that design outputs are correct, that calculations and reports do not contain mathematical inconsistencies, and that information on drawings is consistent with the results of calculations and reports.
- **Scope Check** to ensure the completeness of the deliverables, assuring all necessary components are included, and detail provided is consistent with client expectations for the phase.
- **Style Check** to ensure that project deliverables have been prepared in accordance with specified appearance requirements.

2.0 SCOPE

This procedure shall apply to the discipline QC check of all project deliverables prior to submission to a client. This procedure applies to the discipline QC check of drawings, building information models (BIM), specifications, calculations (including quantities and construction cost estimates), reports, and studies, etc. All deliverables, regardless of milestone or phase, shall undergo Discipline QC Check commensurate with the level of detail available for the milestone or phase of the deliverable being checked. While this procedure does not formally apply to interim or working drafts, it is important to note that interim day to day QC checking is essential throughout the design process to maintain project schedules and avoid rework.

3.0 REFERENCES

- 3.1 Procedure QP 03, Control of Project Quality Records
- 3.2 Procedure QP 05, Quality Check/Review Color Codes
- 3.3 Procedure QP 20, Bluebeam QMS Review

4.0 ROLES and RESPONSIBILITIES

- 4.1 **Project Manager/Design Manager or Task Lead** – The Project Manager, Design Manager, or Task Lead shall determine the need for an appropriately detailed discipline specific checklist inclusive of applicable design criteria, CADD standards, project BIM requirements and other relevant client requirements to facilitate deliverable development and quality review. The Project Manager, Design Manager or Task Lead shall also identify independent and qualified Checkers within each design discipline and provide a list of those qualified Checkers to the DQAM for verification during QA Review.
- 4.2 **Originator** - The Originator shall be a qualified individual with sufficient, relevant experience in the discipline of the deliverable being produced, applicable design criteria, project BIM requirements, other contractual requirements, and shall be responsible for:
 - 4.2.1 Production and submittal of the deliverable for Discipline QC Check in accordance with the established schedule in the Client Deliverable Quality Matrix.
 - 4.2.2 Performing a self-review, to include verification of any applicable Over the Shoulder (OTS) Review comments of interim deliverables, as well as verification of client/owner comments, and/or deferred comments from a previous submittal, prior to submittal for

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 06
Discipline QC Check	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 9
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

- Discipline QC Check.
- 4.2.3 Reviewing the deliverable with the Checker to familiarize them with the design criteria, any design changes, CADD standards, project BIM requirements, and other client requirements.
- 4.2.4 Maintaining records of Discipline QC Check.
- 4.3 Checker** - The Checker shall be a qualified individual with sufficient, relevant experience in the discipline of the deliverable being checked, and in some cases, may possess specific subject matter expertise. The Checker shall be independent of the Originator of the deliverable being checked, but should have familiarity with the client, contractual requirements, approved design criteria, and project BIM requirements in the case where the deliverable is BIM. The Checker shall be responsible for:
- 4.3.1 Performing a **Conformance Check**.
- 4.3.2 Performing an **Accuracy Check**.
- 4.3.3 Performing a **Scope Check**.
- 4.3.4 Performing a **Style Check**.
- 4.3.5 Verifying that any applicable previous OTS Review comments from any interim deliverables have been addressed.
- 4.3.6 Verifying that any applicable client/owner review comments, and/or deferred comments from a previous submittal have been addressed.
- 4.3.7 Noting Discipline QC Check comments on the CheckPrint and providing the check comments to the Backchecker.
- 4.3.8 Participating in comment resolution with the Backchecker, if necessary.
- 4.4 Backchecker** – The Backchecker (may be the Originator) shall be a qualified individual with sufficient, relevant experience in the discipline of the deliverable being produced, applicable design criteria, project BIM requirements, other contractual requirements, and shall be responsible for:
- 4.4.1 Reviewing the comments made by the Checker to confirm the validity of such comments with respect to the project scope and requirements.
- 4.4.2 Noting agreement or disagreement with comments on the CheckPrint.
- 4.4.3 Working with the Checker to resolve comments with which they disagree.
- Any remaining disputes shall be escalated to the Task Lead or the Project Manager for resolution.
- 4.4.4 Providing Backcheck results to the Updater.
- 4.5 Updater** – The Updater (may be the Originator, Backchecker, or a qualified designee) shall be responsible for:
- 4.5.1 Making changes or updates to the deliverable based upon the Backchecker's disposition.
- 4.5.2 Noting the completion of those changes or updates on the CheckPrint.
- 4.5.3 Providing a revised copy of the deliverable to the Verifier.
- 4.6 Verifier** - The Verifier (must be the Checker or a similarly qualified, independent designee, i.e. not the Originator, Backchecker or Updater, when the Checker is unavailable) shall be responsible for:
- 4.6.1 Verifying that all agreed upon changes or updates have been made to the deliverable.
- 4.6.2 Noting verification those changes or updates on the CheckPrint.
- 4.6.3 Documenting concurrence when the Backcheck status is Disagree or Defer Comment.

5.0 PROCEDURE

- 5.1** The Project Manager, Design Manager or Task Lead shall make the determination and develop, if warranted, a sufficiently detailed discipline specific design criteria checklist to support deliverable development and subsequent quality review inclusive of relevant design criteria, CADD standards, project BIM requirements, and other contractual requirements. Note, the checklist

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 06
Discipline QC Check	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 9
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

may require elements to assure consistency between varying deliverable data formats, such as 2D plans, 3D models, calculations, specifications, reports, etc.

- 5.2 The Project Manager, Design Manager or Task Lead shall also identify independent and qualified Checkers within each design discipline and provide a list of those qualified Checkers to the DQAM for verification during QA Review.
- 5.3 The Originator shall prepare the deliverable in accordance with the contract requirements, the approved design criteria, the level of completeness required, project BIM requirements, and in accordance with the schedule in the Client Deliverable Quality Matrix.
- 5.4 The Originator shall perform a self-review of the deliverable to ensure compliance with requirements including approved design criteria, any design changes, CADD standards, mathematical accuracy, level of completeness and project BIM requirements, and consistency between deliverable data formats . The Originator shall also verify that deferred comments, and/or comments from the client from a previous milestone or phase to be addressed within this milestone or phase, and any applicable OTS Review comments from previous interim deliverables have been incorporated as indicated. If a discipline specific design criteria checklist has been developed, the Originator shall document completion of the self-review upon that checklist.
- 5.5 The Originator shall prepare a CheckPrint of the deliverable and submit the deliverable to the Checker on or before the Start Date documented in the Client Deliverable Quality Matrix, along with the discipline specific checklist, if one has been developed. Once the deliverable has been submitted for review, it must be in a completed state relative to that milestone or phase so that the check performed represents the deliverable as it will be submitted to the client and to prevent additional design work from not being checked.
 - 5.5.1 If using hardcopy, the Originator shall apply a CheckPrint stamp (may be applied through CADD graphic) such as shown below to the CheckPrint and shall initial and date the Originator line, in BLACK ink. It may not be necessary to apply a CheckPrint stamp to every sheet, however, a new CheckPrint stamp must be applied when the specific individuals involved in the checking process change. When using a single CheckPrint stamp to cover a number of sheets, the range of sheets for which the CheckPrint stamp applies shall be noted.

DOCUMENT CHECK			
TYPE OF REVIEW: _____			
	PRINT NAME	INITIAL	DATE
ORIGINATOR	_____	_____	_____
CHECKER	_____	_____	_____
BACKCHECKER	_____	_____	_____
UPDATER	_____	_____	_____
VERIFIER	_____	_____	_____
HNTB	APPLIES TO _____ THROUGH _____		

- 5.5.2 If using Bluebeam for the Discipline QC Check, the Originator shall publish a .pdf CheckPrint and the check shall be performed in accordance with Procedure QP 20,

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 06
Discipline QC Check	Revision Number: 0	Revision Date: 6/19/23	Page 4 of 9
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

Bluebeam QMS Review. Note: If using Bluebeam for Discipline QC Check, the CheckPrint Stamp may be electronically incorporated to provide visible tracking of the QC process at the discretion of the PM, DQAM, or Task Lead.

- 5.5.3 Calculations shall be prepared in a neat and legible fashion on standard HNTB calculation sheets (hardcopy or Excel spreadsheet format). Form QF 06, Calculation Cover Sheet shall be attached to copies of calculations (for each revision) wherein the Originator shall:
- Fill out the header completely, including defining the design criteria document applicable to the calculation being checked.
 - Number the pages and indicate the total number of pages (in the top right corner of the Cover Sheet), including attachments.
 - Indicate the Revision number of the calculation being submitted for check. Indicate the Reason for Change (should be Original Issue for Rev 0, for future Revisions, describe what has changed). Note: For revisions in which only limited items have changed, the check may be limited to calculations impacted by the changes.
 - The Originator shall also note whether confirmation of calculations with other submittal components is required, and if so, which deliverables are impacted. Note: All required confirmations shall be accomplished by the Originator of the calculation prior to final submittal of calculations to the client.
 - Document the calculation objective, the methodology and list of assumptions, references and inputs, the attachments supporting the calculation and the conclusions drawn.
 - The Originator shall sign and date the Originator Line and provide the calculation, including cover sheet and attachments, to the Checker.
- 5.5.4 If using QF 04, Comment Resolution Form, the Originator shall complete the header information on the QF 04 Form in accordance with the Instructions Tab and submit the deliverable along with QF 04 to the Checker.
- 5.5.5 Specifications, Special Provisions, Reports and Studies prepared using MS Word format shall be submitted for Discipline QC Check utilizing Track Changes. The Originator shall generate Form QF 05, Discipline QC Check Record, initial and date on the Originator line and submit the electronic CheckPrint along with the form to the Checker. This form serves the purpose of the CheckPrint Stamp in the case of these electronic deliverables.
- 5.6** The Checker shall perform the following checks as part of Discipline QC Check:
- 5.6.1 Conformance Check
- Using the design criteria itself (including any design changes), a client provided criteria checklist (if applicable), or discipline specific criteria checklists developed for the project, the Checker shall verify that the project deliverable meets the requirements of the design criteria, project BIM requirements, and any other contractual requirements. The conformance check shall also assure consistency between various deliverable data formats such as 2D plans, 3D models, calculations, specifications, reports, etc. The conformance check should also include a check that environmental commitments and other commitments made during the planning phase have been incorporated. Methods used to perform this verification may include:
 - Direct observation, i.e., deliverable or software contains, references, or otherwise indicates the inputs used
 - Comparison with a similar design
 - Verification of consistency between deliverable data formats
 - Performing alternative calculations
 - Independent measurement, test or calculation
- 5.6.2 Accuracy Check

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 06
Discipline QC Check	Revision Number: 0	Revision Date: 6/19/23	Page 5 of 9
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

- The Checker shall verify that design deliverable outputs are correct, that calculation inputs and outputs are correct and do not contain mathematical inconsistencies, that methodologies and assumptions and conclusions are accurate, that reports, and studies are accurate, that conclusions are supported by calculations and data, and that information shown on drawings or within models is consistent with the results of calculations and study reports. This verification may be done by direct observation or independent measurement/calculation.
 - Formulas utilized in calculations performed by spreadsheets shall be validated using manual calculations upon the first use and spot checked thereafter.
 - Hand calculations shall be validated.
- 5.6.3 Scope Check
 - The Checker shall verify that the deliverable is complete, meaning that all required components are present, such as 2D plans, 3D models, calculations, specifications, reports, etc.
 - The Checker shall also verify that the deliverable represents the level of completeness required in accordance with the phase or milestone associated with the deliverable (e.g. 60%).
- 5.6.4 Style Check
 - The Checker shall verify that the deliverable is compliant with associated CADD Manual or CADD requirements, project BIM requirements, Style Guide or other requirements relative to the appearance of the deliverable.
 - For pdf CheckPrints this verification may be done by reviewing the fonts, levels, line weights, use of language, annotation, grammar, spelling and overall white space management.
 - For 3D model CheckPrints, this verification may be done by verifying that modeled elements are assigned the correct feature definitions, levels/layers, line styles, weights, materials, attributed data, saved views, and coordinate systems, etc.
 - Note: The Style Check may be more effectively performed by a CADD Manager, BIM Manager, or individual with similar responsibility on the project.
- 5.6.5 The Checker shall verify that revisions resulting from comments from a previous milestone or phase, intended to be resolved within this milestone or phase (including deferred comments and/or comments from client/owner review), and any revisions made as a result of previous OTS Review comments have been incorporated.
- 5.6.6 The Checker shall record results of Discipline QC Check, noting errors and comments on the CheckPrint in accordance with Procedure QP 05, Quality Check/Review Color Codes.
 - If using hardcopy, the Checker shall initial and date the CheckPrint stamp on the Checker line, in RED ink.
 - If using QF 04, the Checker shall enter comments on the Comment Resolution Form in accordance with the Instructions Tab.
 - If using Bluebeam, the Checker shall document comments in accordance with Procedure QP 20, Bluebeam QMS Review.
 - If the Checker has no comments on a sheet, the Checker shall indicate "No Comments" on the CheckPrint sheet(s) to provide evidence of check or, in the case of hardcopy, may highlight all items verified as correct with Yellow highlight or make a single diagonal Yellow slash across sheet to indicate contents of sheet have been checked and are correct.
 - In the case of MS Word deliverables such as specifications, special provisions, reports or studies, the Checker shall utilize MS Word Track Changes to note Discipline QC Check comments, making changes or additions to the text or making

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 06
Discipline QC Check	Revision Number: 0	Revision Date: 6/19/23	Page 6 of 9
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

comments in the margin. Note, As the MS Word Track Changes feature assigns different colors to each editor; there is no need to attempt to comply with the colors in accordance with QP 05, Quality Check/Review Color Codes. The Checker shall initial and date Form QF 05 QC Check/Review Record on the Checker line.

- 5.7 The Backchecker shall review all the Checker's comments and shall note agreement or disagreement with the comments on the CheckPrint in accordance with Procedure QP 05, Quality Check/Review Color Codes. Rationale for disagreement must be documented. Should the Backchecker choose to defer a comment to a subsequent submittal, the rationale for deferment as well as the milestone to which the comment will be deferred must be documented.
 - 5.7.1 If using hardcopy, the Backchecker shall initial and date the CheckPrint stamp on the Backchecker line, in GREEN ink.
 - 5.7.2 If using QF 04, the Backchecker shall document agreement, disagreement, or deferral on the on the Comment Resolution Form in accordance with the Instructions Tab.
 - 5.7.3 If using Bluebeam, the Backchecker shall document agreement, disagreement or deferral in accordance with Procedure QP 20, Bluebeam QMS Review.
 - 5.7.4 In the case of MS Word deliverables such as specifications, special provisions, reports or studies, the Backchecker shall utilize MS Word Track Changes to note agreement, disagreement or deferral with Discipline QC Check comments, making changes or additions to the text or making comments in the margin. Note, As the MS Word Track Changes feature assigns different colors to each editor; there is no need to attempt to comply with the colors in accordance with QP 05, Quality Check/Review Color Codes. The Backchecker shall also initial and date Form QF 05 QC Check/Review Record on the Backchecker line.
 - 5.7.5 In cases where the Backchecker disagrees with the Checkers comment or prefers to defer resolution of the comment to a subsequent submittal, the Backchecker shall obtain documented concurrence from the Checker. If disputes remain, the issue shall be escalated to the Task Lead or Project Manager for resolution.
- 5.8 The Updater shall make the necessary updates to the native format of the deliverable and shall note completion of updates on the CheckPrint in accordance with Procedure QP 05, Quality Check/Review Color Codes.
 - 5.8.1 If using hardcopy, the Updater shall initial and date the CheckPrint stamp on the Updater line, in BLUE ink.
 - 5.8.2 If using QF 04, the Updater shall initial the Fixed column on the Comment Resolution Form in accordance with the Instructions Tab.
 - 5.8.3 If using Bluebeam, the Updater shall document completion of the update in accordance with Procedure QP 20, Bluebeam QMS Review.
 - 5.8.4 In the case of MS Word deliverables such as specifications, special provisions, reports or studies, the Updater shall utilize MS Word Track Changes and comment bubbles to accept or reject changes and incorporating comments as indicated by the Backchecker. The Updater shall also initial and date Form QF 05 QC Check/Review Record on the Updater line.
 - 5.8.5 Once all agreed upon updates have been made, the Updater shall prepare a revised version of the deliverable and shall provide it to the Verifier with original markups.
- 5.9 The Verifier shall verify that all agreed upon updates for comments they are assigned responsibility have been made to the deliverable and shall document verification on the CheckPrint, including concurrence with Backcheck status of Disagree and Defer Comment, in accordance with Procedure QP 05, Quality Check/Review Color Codes.
 - 5.9.1 If using hardcopy, the Verifier shall initial and date the CheckPrint stamp on the Verifier line, in BLACK ink.
 - 5.9.2 If using QF 04, the Verifier shall initial the Verified column on the Comment Resolution Form in accordance with the Instructions Tab.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 06
Discipline QC Check	Revision Number: 0	Revision Date: 6/19/23	Page 7 of 9
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

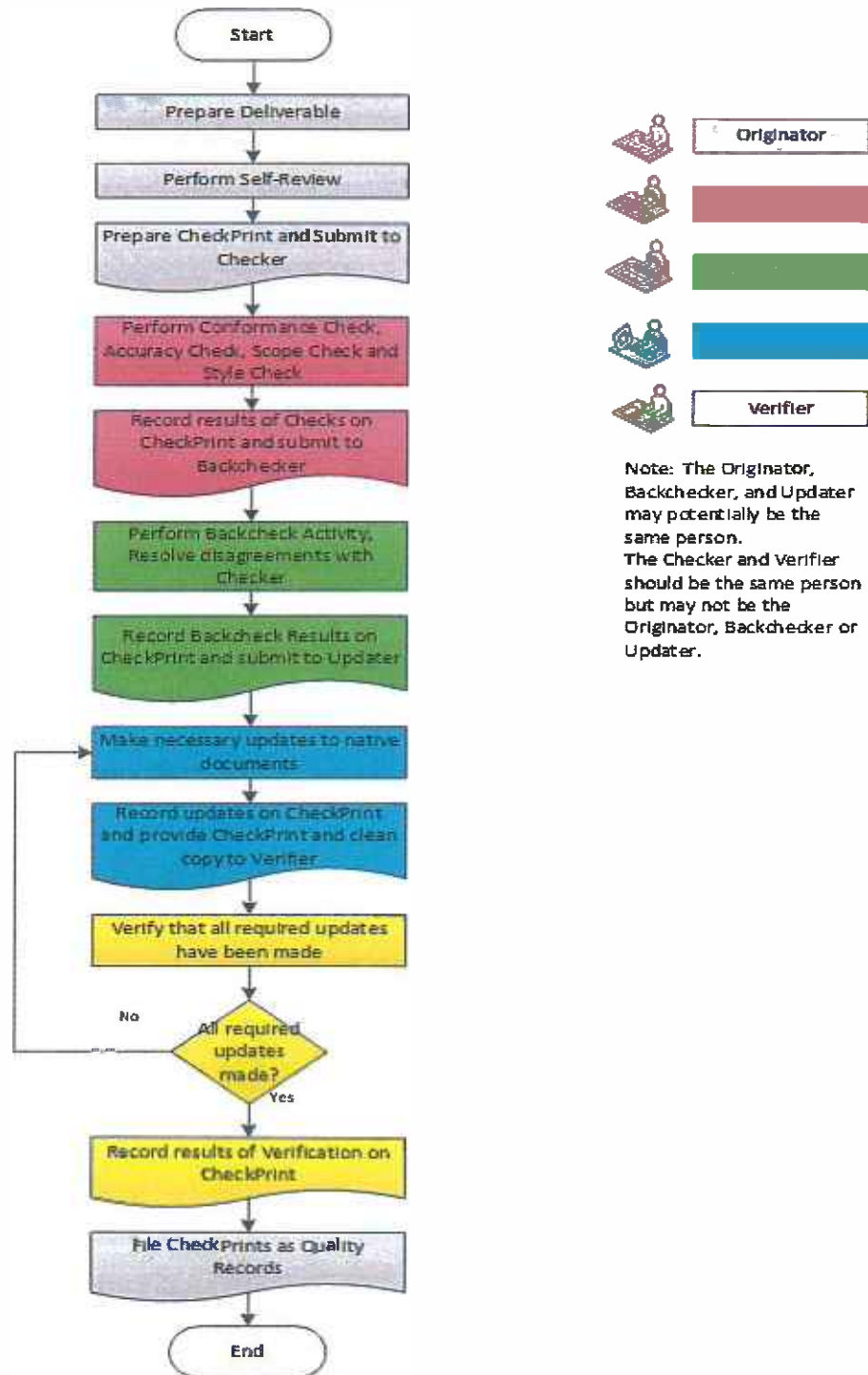
- 5.9.3 If using Bluebeam, the Verifier shall document verification in accordance with Procedure QP 20, Bluebeam QMS Review.
- 5.9.4 In the case of MS Word deliverables such as specifications, special provisions, reports or studies, the Verifier shall initial and date Form QF 05 QC Check/Review Record on the Verifier line.
- 5.9.5 Discipline QC Check should be complete by the End Date documented in the Client Deliverable Quality Matrix, including the verification of all updates.
- 5.10 The Originator shall maintain quality records in accordance with QP 03, Control of Quality Records:**
 - 5.10.1 If the check was completed using hardcopy, the Originator shall maintain copies of all CheckPrints with completed CheckPrint stamps, including Form QF 06, Calculation Cover Sheet.
 - 5.10.2 If the check was completed using the QF 04 Comment Resolution Form, the Originator shall maintain the completed QF 04.
 - 5.10.3 If the check was completed using Bluebeam the Originator shall generate a Discipline QC Check Summary Log, showing all the comments, evidence of Backcheck, Update and Verification and shall maintain a copy of this summary report along with copies of all electronic CheckPrints .
 - 5.10.4 If the check was completed using MS Word Track Changes, the Originator shall maintain a MS Track Changes version record demonstrating all four steps in the process (i.e. Check, Backcheck, Update and Verify steps) in accordance with Procedure QP 03, Control of Project Quality Records. When MS Track Changes application clearly demonstrates the individuals by name and role in the quality process, there is no need for the additional QF 05 Form.
 - 5.10.5 At the conclusion of the Discipline QC Check, all deferred comments shall be captured on QF 04, Comment Resolution Form and maintained for resolution and verification during the subsequent milestone review.

6.0 QUALITY RECORDS

- 6.1** CheckPrints (electronic or hardcopy)
- 6.2** Discipline QC Check Summary Log (Bluebeam)
- 6.3** Form QF 06, Calculation Cover Sheet
- 6.4** Form QF 05, QC Check/Review Record
- 6.5** Form QF 04, Comment Resolution Form

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 06
Discipline QC Check	Revision Number: 0	Revision Date: 6/19/23	Page 8 of 9
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

7.0 FLOWCHART



HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 06
Discipline QC Check	Revision Number: 0	Revision Date: 6/19/23	Page 9 of 9
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 07
Senior Technical Review	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities and process for conducting Senior Technical Review of project deliverables. The purpose of Senior Technical Review is to ensure that the design fulfills the intended use, meets the basis of design and/or approved design criteria, and that the design has been developed in accordance with applicable standards of professional practice. Senior Technical Reviews are conducted by subject matter experts in order to review high risk and complex project elements.

2.0 SCOPE

This procedure shall apply to the Senior Technical Review of project deliverables when required via the Client Deliverable Quality Matrix in accordance with QP 01, Quality Planning. In general, Senior Technical Review shall apply to specific deliverables or projects judged to be complex or critical. Senior Technical Reviews typically involve an independent review of project concepts, basis of design/design criteria and design methodology. Senior Technical Reviews may also be applied to subconsultant deliverables when determined through the Quality Planning process and documented in the Client Deliverable Quality Matrix. Discipline QC Check shall be completed prior to engaging in Senior Technical Review.

3.0 REFERENCES

- 3.1 QP 01, Quality Planning
- 3.2 QP 03, Control of Project Quality Records
- 3.3 QP 05, Quality Check/Review Color Codes
- 3.4 QP 20, Bluebeam QMS Review

4.0 ROLES and RESPONSIBILITIES

4.1 Project Manager (PM) – The PM shall be responsible for:

- 4.1.1 Identifying, in concert with the DQAM and Task Leads, and potentially Divisional/National Practice/Market Sector Leads (PSL/MSL), those project elements that shall receive a Senior Technical Review and documenting those required reviews within the Client Deliverable Quality Matrix in accordance with Procedure QP 01, Quality Planning.
- 4.1.2 Determining, in concert with the DQAM, the format for performing Senior Technical Reviews, i.e., using Bluebeam, hardcopy CheckPrints, or comment resolution form.

4.2 Task Lead - The Task Lead shall be responsible for:

- 4.2.1 Assisting the PM in making the determination as to the need for Senior Technical Review and in identifying qualified resources, consulting Divisional/National PSL/MSL when necessary.
- 4.2.2 Verifying that Discipline QC Check has been completed prior to engaging in Senior Technical Review.
- 4.2.3 Providing the design criteria and any approved design changes to the Senior Technical Reviewer.
- 4.2.4 Providing design deliverables to the Senior Technical Reviewer for review.
- 4.2.5 Responding to and resolving comments made by Senior Technical Reviewers.
- 4.2.6 Resubmitting revised drawings or other design documents to the Senior Technical Reviewer for verification.
- 4.2.7 Maintaining records of Senior Technical Review.

4.3 Design Quality Assurance Manager (DQAM) – The DQAM shall be responsible for:

- 4.3.1 Assisting the PM in making the determination as to the need for Senior Technical

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 07
Senior Technical Review	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

Review.

- 4.3.2 Ensuring Senior Technical Reviewers are familiar with the format chosen and working with the Delivery Technology Subject Matter Expert to provide training if Bluebeam is chosen.

4.4 Senior Technical Reviewer - The Senior Technical Reviewer shall be a qualified individual, independent of the production team, typically a senior level professional with specific subject matter expertise sufficient to perform a review in accordance with the purpose of this procedure. The Senior Technical Reviewer should have familiarity with the project, the client, contractual requirements, the approved design criteria, and project BIM requirements (when the deliverable is BIM). The Senior Technical Reviewer shall be independent of production of the deliverable being reviewed. The Senior Technical Reviewer shall be responsible for:

- 4.4.1 Reviewing the deliverable for fitness for use, conformance with the basis of design and/or design criteria, and for conformance with applicable standards of professional practice.
4.4.2 Documenting comments and errors as a result of the review.
4.4.3 Reviewing and discussing the results with the designer, reconciling comments and errors, and agreeing upon revisions to be made.
4.4.4 Verifying that agreed upon revisions have been incorporated.
4.4.5 Certifying that Senior Technical Review has been performed and any identified issues have been resolved, when contractually required.

4.5 Divisional/National Practice/Market Sector Leads (PSL/MSL) – The PSL/MSL shall be responsible for, when required:

- 4.5.1 Working with the PM and Task Leads to identify design deliverables requiring Senior Technical Review.
4.5.2 Collaborating to identify appropriately qualified Senior Technical Reviewers.

5.0 PROCEDURE

5.1 In accordance with Procedure QP 01, Quality Planning, the PM shall, in collaboration with the Task Leads and the DQAM, identify those deliverables that require Senior Technical Review. Those required reviews shall be recorded within Form QF 02, Client Deliverable Quality Matrix. Decisions to apply Senior Technical Reviews shall be dependent upon the nature of the project and design element but are typically applied to deliverables or projects judged to be complex or critical. Dependent upon project scope, previous successful experience of the local office on similar projects, client sensitivity and project risk, the PM, DQAM, and Task Leads shall consult Divisional/National Practice and Market Sector Leads in the determination of Senior Technical Review (including the identification of appropriately qualified resources to perform those reviews).

5.2 The PM shall, in collaboration with the Task Leads, identify qualified resources to perform Senior Technical Reviews.

5.2.1 Resources for Senior Technical Reviews and scheduled time shall have been accounted for within the Work Plan.

5.2.2 Task Leads shall provide the names of Senior Technical Reviewers to the DQAM for verification during QA Review.

5.3 When required by the Client Deliverable Quality Matrix, the Task Lead shall verify that Discipline QC Check has been completed and then provide the Senior Technical Reviewer with the design deliverable to be checked (by the Start Date documented in the Client Deliverable Quality Matrix); inclusive of basis of design/design criteria and any approved design changes.

5.4 The Senior Technical Reviewer shall review the design deliverable with a focus on project concepts, basis of design/design criteria, design methodology, fitness of the design for its intended use, and verifying the design has been developed in accordance with applicable standards of professional practice.

5.5 The Senior Technical Reviewer shall document comments via Bluebeam, in accordance with

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acufia	Document number: QP 07
Senior Technical Review	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

Procedure QP 20, Bluebeam QMS Review, via hardcopy CheckPrint using the CheckPrint Stamp, in accordance with Procedure QP 05, Quality Check/Review Color Codes, via MS Word Track Changes (accompanied by Form QF 05), or within Form QF 04, Comment Resolution Form, and provide them to the Task Lead or Designer. If the Senior Technical Reviewer has no comments to make, they shall record "No Comments" within the electronic CheckPrint, Form QF 04 Comment Resolution Form, noted within MS Word Track Changes, or may make a diagonal yellow slash across the hardcopy CheckPrint (indicating the contents of the sheet have been checked and are correct), in order to provide evidence of the review. Note: If using Bluebeam for Senior Technical Review, the CheckPrint Stamp may be electronically incorporated to provide visible tracking of the review process at the discretion of the PM, DQAM, or Task Lead.

- 5.6 The Task Lead or Designer shall document response to all Senior Technical Review comments via Bluebeam, hardcopy CheckPrint in accordance with Procedure QP 05, Quality Check/Review Color Codes, MS Word Track Changes, or Form QF 04 Comment Resolution Form, and shall document agreement, deferral, or disagreement (including rationale) with the comment and the planned resolution.
 - 5.6.1 If the Task Lead or Designer disagrees with the Senior Technical Reviewer or prefers to defer resolution of the comment to a subsequent submittal, they shall come to a common resolution, obtaining the documented concurrence of the Senior Technical Reviewer. Remaining disputes shall be escalated to the PM and/or PSL/MSL.
- 5.7 The Task Lead or designee shall make the necessary revisions to the deliverable and record update activities.
 - 5.7.1 If using Bluebeam, the Task Lead shall record update in accordance with Procedure QP 20, Bluebeam QMS Review.
 - 5.7.2 Otherwise, the Task Lead shall record update on the hardcopy CheckPrint in accordance with Procedure QP 05, Quality Check/Review Color Codes, using MS Word Track Changes, or within Form QF 04 Comment Resolution Form.
- 5.8 Once all agreed upon revisions have been made the Task Lead shall provide the revised deliverable to the Senior Technical Reviewer for verification.
- 5.9 The Senior Technical Reviewer, or other qualified independent reviewer designated by the Senior Technical Reviewer (not the Task Lead), if the original reviewer is unavailable, shall verify that all agreed upon revisions have been made, and shall document that verification, including documenting concurrence with Disagree and Deferred status.
 - 5.9.1 If using Bluebeam, the Interdisciplinary Reviewer shall record verification in accordance with Procedure QP 20, Bluebeam QMS Review.
 - 5.9.2 Otherwise, the Interdisciplinary Reviewer shall record verification on hardcopy CheckPrints in accordance with Procedure QP 05, Quality Check/Review Color Codes, using MS Word Track Changes, or within Form QF 04, Comment Resolution Form.
 - 5.9.3 Senior Technical Review should be completed by the End Date documented in the Client Deliverable Quality Matrix, including the verification of all revisions.
- 5.10 If the review was completed using Bluebeam, the Task Lead, or designee, shall generate a Senior Technical Review Summary Log, showing all the comments, evidence of response, revision and verification and shall maintain a copy of this summary report along with copies of all electronic CheckPrints in accordance with Procedure QP 03, Control of Project Quality Records.
- 5.11 If the review was not completed using Bluebeam, the Task Lead, or designee, shall maintain a copy of hardcopy, or electronic CheckPrint with QF 05, or Form QF 04, Comment Resolution Form in accordance with Procedure QP 03, Control of Project Quality Records. When MS Track Changes application clearly demonstrates the individuals by name and role in the quality process, there is no need for the additional QF 05 Form.
- 5.12 When contractually required, the Senior Technical Reviewer shall prepare a Certificate indicating the completion of Senior Technical Review and the resolution of any identified comments. See Form QF 07, Certificate of Compliance.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 07
Senior Technical Review	Revision Number: 0	Revision Date: 6/19/23	Page 4 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

5.13 The Task Lead shall ensure that all Senior Technical Review records (including Form QF 07, Certificate of Compliance, if applicable) are maintained as quality records in accordance with Procedure QP 03, Control of Project Quality Records.

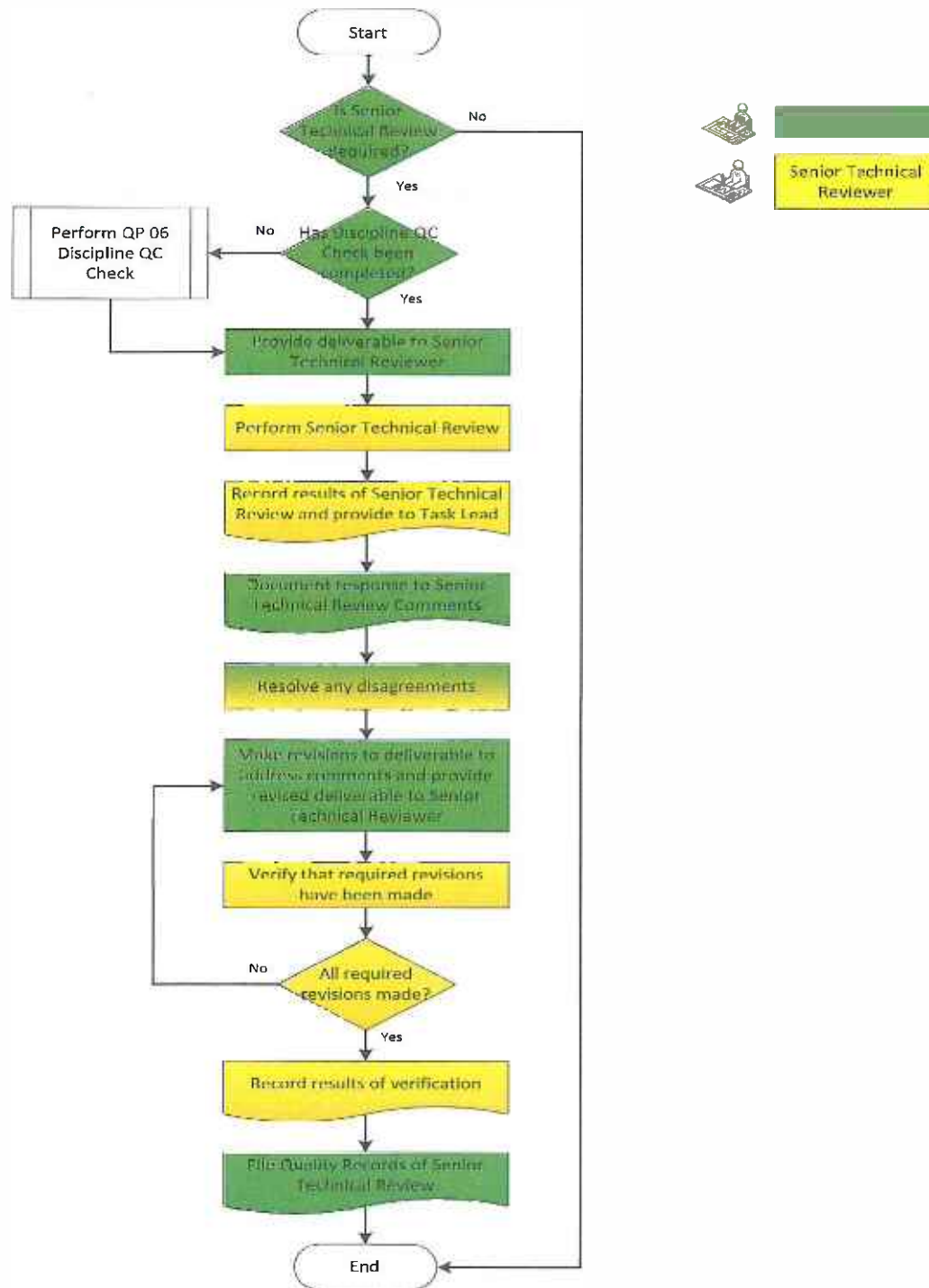
5.14 At the conclusion of Senior Technical Review, all deferred comments shall be captured on QF 04, Comment Resolution Form and maintained for resolution and verification during the subsequent milestone review.

6.0 QUALITY RECORDS

- 6.1** CheckPrints (hardcopy or electronic)
- 6.2** Senior Technical Review Summary Log (Bluebeam)
- 6.3** Form QF 05, QC Check/Review Record
- 6.4** Form QF 04, Comment Resolution Form
- 6.5** Form QF 07, Certificate of Compliance

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 07
Senior Technical Review	Revision Number: 0	Revision Date: 6/19/23	Page 5 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

7.0 FLOWCHART



HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 08
Interdisciplinary Review	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities, and process for Interdisciplinary Review of project deliverables. The purpose of Interdisciplinary Review is to ensure consistency of the design between disciplines and segments; between design prepared by HNTB and its subconsultants; between design of the project and adjacent projects; between design of the project and the affected facilities owned by other stakeholders; and to prevent coordination errors in construction documents.

Interdisciplinary Review is most effective when performed collectively in an interactive session to avoid duplicate or conflicting comments and to facilitate interdisciplinary solutions to the benefit of the project. It should be noted that while Interdisciplinary Review serves to identify and resolve coordination errors, the most effective method to prevent such issues is through frequent interdisciplinary coordination and interface management throughout the design development process.

2.0 SCOPE

This procedure shall apply to all project deliverables (constituting multiple disciplines) prior to submission to a client. Deliverable packages shall not be submitted for Interdisciplinary Review until Discipline QC Check, Senior Technical Review (if applicable), and Independent Design Check (if applicable) have been completed and comments resolved and verified.

3.0 REFERENCES

- 3.1 Procedure QP 01, Quality Planning
- 3.2 Procedure QP 03, Control of Project Quality Records
- 3.3 Procedure QP 05, Quality Check/Review Color Codes
- 3.4 Procedure QP 12, QA Review
- 3.5 Procedure QP 20, Bluebeam QMS Review

4.0 ROLES and RESPONSIBILITIES

4.1 Project Manager (PM) – The PM, or designee, shall be responsible for:

- 4.1.1 Determining, in concert with the DQAM the method for performing and capturing the records of Interdisciplinary Review, i.e., through the use of Bluebeam, hardcopy CheckPrints, or by capturing Interdisciplinary Review comments on Form QF 04, Comment Resolution Form.
- 4.1.2 Identifying those Task Leads and other qualified project team members who are required to participate in Interdisciplinary Review and providing a list of those names to the DQAM.
- 4.1.3 Scheduling/facilitating the Interdisciplinary Review.
- 4.1.4 Compiling and submitting the deliverable package in accordance with the project schedule for Interdisciplinary Review.
- 4.1.5 Resolving conflicts between Task Leads and Interdisciplinary Reviewers and identifying solutions.
- 4.1.6 Maintaining records of Interdisciplinary Review.

4.2 Design Quality Assurance Manager (DQAM) – The DQAM shall be responsible for:

- 4.2.1 Working with the PM to determine the method of performing and capturing the records of Interdisciplinary Review.
- 4.2.2 Training Interdisciplinary Reviewers on the method to be used. Note: this may require

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 08
Interdisciplinary Review	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

involvement of the Delivery Technology Subject Matter Expert to provide Bluebeam training when applicable.

- 4.2.3 Before Interdisciplinary Review begins, verifying that Discipline QC Check, Senior Technical Review (if applicable), and Independent Design Check (if applicable) have been completed, and comments resolved and verified.

4.3 Interdisciplinary Reviewers - Interdisciplinary Reviewers shall be qualified individuals with sufficient, relevant experience in the disciplines being reviewed. Interdisciplinary Reviewers are typically the Task Leads for the project (may be subconsultants), or their designees, and as such should have familiarity with the project, the client, contractual requirements, the approved design criteria, and project BIM requirements (when the deliverable is BIM). Note: Interdisciplinary Reviewers may also include Owners or Third Party Representatives when other project or existing facilities are involved. Interdisciplinary Reviewers shall be responsible for:

- 4.3.1 Reviewing the deliverable package for successful integration and conflicts. Specific areas to review are those interfaces between the disciplines and segments, between HNTB design and that of subconsultants, and adjacent projects, or existing conditions or facilities.
- 4.3.2 Documenting specific review comments as a result of the review.
- 4.3.3 Reviewing comments with the Task Leads and/or PM, reconciling comments and agreeing upon solutions and revisions to be made.
- 4.3.4 Verifying that agreed upon revisions have been incorporated.

4.4 Task Leads – The Task Lead shall be responsible for:

- 4.4.1 Responding to and resolving Interdisciplinary Review comments.
- Elevating unresolved differences to the PM for resolution.
- 4.4.2 Making revisions to deliverables to address comments and resubmitting revised deliverables to the Interdisciplinary Reviewer for verification.

5.0 PROCEDURES

- 5.1 In accordance with Procedure QP 01, Quality Planning, the PM shall determine design deliverables requiring Interdisciplinary Review. Those required reviews shall be recorded within Form QF 02, Client Deliverable Quality Matrix.
- 5.2 The PM, in concert with the DQAM, shall determine the method for performing and capturing record of Interdisciplinary Review, i.e., via Bluebeam, via hardcopy CheckPrints, or via Comment Resolution Form.
- 5.3 The PM shall identify the Interdisciplinary Reviewers (based upon impacted disciplines) required to participate in the review process. All identified reviewers must participate in the process to facilitate a full review.
- 5.4 The PM or designee shall provide a listing of the names of the identified Interdisciplinary Reviewers to the DQAM for verification during QA Review.
- 5.5 The DQAM shall train the identified Interdisciplinary Reviewers in the method to be used to document, respond to, resolve, and verify Interdisciplinary Review comments. Note: If using Bluebeam, the DQAM shall coordinate with the Delivery Technology Subject Matter Expert to provide Bluebeam training. Interdisciplinary Reviewers shall not be given access to Bluebeam sessions until they have received training.
- 5.6 The DQAM shall verify that Discipline QC Check, Senior Technical Review (if applicable), and Independent Design Check (if applicable) have been completed and comments resolved and verified prior to beginning Interdisciplinary Review. This verification may be performed in accordance with QP 12, QA Review and recorded on QF 08, QA Review Record. Once a deliverable has been submitted for Interdisciplinary Review, it should be in a completed state relative to that milestone or phase so that the review performed represents the deliverable as it will be submitted to the client and to prevent additional design work from not being checked.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 08
Interdisciplinary Review	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

- 5.7 The PM, or designee, shall compile the deliverable package and shall submit it for Interdisciplinary Review by the Start Date documented in the Client Deliverable Quality Matrix.
- 5.7.1 If the review is done via Bluebeam, Interdisciplinary Reviewers shall be invited to the session and the package shall be posted for review in accordance with Procedure QP 20, Bluebeam QMS Review.
- 5.7.2 Otherwise, the PM shall make the deliverable package available to the Interdisciplinary Reviewers along with Form QF 04, Comment Resolution Form. If the deliverable is in a MS Word format, the review may be completed using MS Word Track Changes (accompanied by Form QF 05, QC Check/Review Record).
- 5.8 Interdisciplinary Reviewers shall review the deliverable package with specific attention to potential physical conflicts between disciplines and segments, between design performed by HNTB and that performed by subconsultants, between this project and adjacent current or proposed projects, and between this project and existing facilities.
- 5.9 Interdisciplinary Reviewers shall document their review comments. Comments shall be detailed enough to facilitate understanding by the Task Lead for response and resolution. If the Interdisciplinary Reviewer has no comments, they shall document "No Comments" within the CheckPrint to provide evidence of the review or may place a yellow diagonal slash across the hardcopy CheckPrint, indicating the contents of the sheet have been checked and are correct.
- 5.9.1 If using Bluebeam, the Interdisciplinary Reviewers shall document their review comments in accordance with Procedure QP 20, Bluebeam QMS Review. Note: If using Bluebeam for Interdisciplinary Review, the CheckPrint Stamp may be electronically incorporated to provide visible tracking of the review process at the discretion of the PM, DQAM, or Task Lead.
- 5.9.2 Otherwise, Interdisciplinary Reviewers shall document their review comments on hardcopy CheckPrints in accordance with Procedure QP 05, Quality Check/Review Color Codes, using MS Word Track Changes (accompanied by Form QF 05), or on Form QF 04, Comment Resolution Form.
- 5.10 The PM shall ensure that all required Interdisciplinary Reviewers complete their reviews in accordance with the allotted time frame. All required Interdisciplinary Reviewers, or a qualified designee, must complete their review in order for the review to be considered complete.
- 5.11 The Task Lead shall review all the Interdisciplinary Reviewers comments and shall document a response or resolution to each comment, including documenting rationale for a disagree or deferred status. If there is a disagreement between the Task Lead and the Interdisciplinary Reviewer, they shall come to an agreed upon solution, including documented concurrence of the Reviewer, if disputes continue the issue shall be escalated to the PM for resolution.
- 5.11.1 If using Bluebeam, the Task Lead shall document their response and resolution to comments in accordance with Procedure QP 20, Bluebeam QMS Review.
- 5.11.2 Otherwise, the Task Lead shall document their response and resolution to the comments on the hardcopy CheckPrint in accordance with Procedure QP 05, Quality Check/Review Color Codes, using MS Word Track Changes, or within Form QF 04, Comment Resolution Form.
- 5.12 The Task Lead shall make the necessary revisions to the deliverable and record update activities.
- 5.12.1 If using Bluebeam, the Task Lead shall record update in accordance with Procedure QP 20, Bluebeam QMS Review.
- 5.12.2 Otherwise, the Task Lead shall record update on the hardcopy CheckPrint in accordance with Procedure QP 05, Quality Check/Review Color Codes, using MS Word Track Changes, or within Form QF 04 Comment Resolution Form.
- 5.13 Once all agreed upon revisions have been made the Task Lead shall provide the revised deliverable to the Interdisciplinary Reviewer for verification.
- 5.14 The Interdisciplinary Reviewer, or other qualified independent reviewer designated by the Interdisciplinary Reviewer (not the Task Lead), if the original reviewer is unavailable, shall verify

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 08
Interdisciplinary Review	Revision Number: 0	Revision Date: 6/19/23	Page 4 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

that all agreed upon revisions have been made, and shall document that verification, including documenting concurrence with Disagree and Deferred status.

- 5.14.1 If using Bluebeam, the Interdisciplinary Reviewer shall record verification in accordance with Procedure QP 20, Bluebeam QMS Review.
- 5.14.2 Otherwise, the Interdisciplinary Reviewer shall record verification on hardcopy CheckPrints in accordance with Procedure QP 05, Quality Check/Review Color Codes, using MS Word Track Changes, or within Form QF 04, Comment Resolution Form.
- 5.14.3 Interdisciplinary Review should be completed by the End Date documented in the Client Deliverable Quality Matrix, including the verification of all revisions.
- 5.15 If the review was completed using Bluebeam, the PM, or designee, shall generate an Interdisciplinary Review Summary Log, showing all the comments, evidence of response, revision and verification and shall maintain a copy of this summary report along with copies of all electronic CheckPrints in accordance with Procedure QP 03, Control of Project Quality Records.
- 5.16 If the review was not completed using Bluebeam, the PM, or designee, shall maintain a copy of hardcopy, or electronic CheckPrint with QF 05, or Form QF 04, Comment Resolution Form in accordance with Procedure QP 03, Control of Project Quality Records. When MS Track Changes application clearly demonstrates the individuals by name and role in the quality process, there is no need for the additional QF 05 Form.
- 5.17 At the conclusion of Interdisciplinary Review, all deferred comments shall be captured on QF 04, Comment Resolution Form and maintained for resolution and verification during the subsequent milestone review.

6.0 QUALITY RECORDS

- 6.1 CheckPrints (hardcopy or electronic)
- 6.2 Interdisciplinary Review Summary Log (Bluebeam)
- 6.3 QF 05, QC Check/Review Record
- 6.4 Form QF 04, Comment Resolution Form

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 08
Interdisciplinary Review	Revision Number: 0	Revision Date: 6/19/23	Page 5 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

7.0 FLOWCHART



HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 08
Interdisciplinary Review	Revision Number: 0	Revision Date: 6/19/23	Page 6 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 09
Independent Design Check	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities and process for conducting Independent Design Checks of critical elements of design. The purpose of Independent Design Check is to gain a higher level of confidence that inputs and outputs used in the design are correct, to verify general compliance with design criteria, and to conduct independent analysis of critical project elements. Independent Design Check is performed by conducting mutually exclusive calculations (without reference to the Designer's calculations).

2.0 SCOPE

This procedure shall apply to the Independent Design Check of design when required via the Client Deliverable Quality Matrix in accordance with Procedure QP 01, Quality Planning. In general, Independent Design Check shall be applied to complex bridge projects, projects with unique or unusual structural elements, and when contractually required. Discipline QC Check shall be complete prior to engaging in Independent Design Check.

When HNTB is contracted to perform Independent Design Check services on designs prepared by another party, then these calculations (in this case the deliverable) shall be subject to Discipline QC Check and potentially other quality checks and reviews, such as Senior Technical Review, Visual Check and QA Review, in accordance with the Client Deliverable Quality Matrix.

In all cases, design criteria, assumptions and data inputs should be verified and not assumed correct.

3.0 REFERENCES

3.1 Procedure QP 01, Quality Planning

3.2 Procedure QP 03, Control of Project Quality Records

3.3 Procedure QP 05, Quality Check/Review Color Codes

4.0 ROLES and RESPONSIBILITIES

4.1 **Project Manager (PM)** – The PM shall be responsible for:

- 4.1.1 Identifying, in concert with the DQAM and Task Leads, and potentially Divisional/National Practice/Market Sector Leads (PSL/MSL), those critical project elements subject to Independent Design Check, and documenting those required checks within the Client Deliverable Quality Matrix in accordance with Procedure QP 01, Quality Planning.

4.2 **Task Lead or Designer** - The Task Lead or Designer shall be responsible for:

- 4.2.1 Assisting the PM in making the determination as to the need for Independent Design Check and in identifying qualified resources, consulting Divisional/National PSL/MSL when necessary, and providing a listing of the names of Independent Design Checkers to the DQAM.
- 4.2.2 Verifying that Discipline QC Check has been completed prior to engaging in Independent Design Check.
- 4.2.3 Initiating a kick-off meeting with Independent Checkers to provide an overview of the design, basis of design and/or design criteria, approved design changes, and the drawings subject to independent design check.
- 4.2.4 Responding to and resolving comments made by Independent Checkers.
- 4.2.5 Resubmitting revised drawings or other design documents to the Independent Checker for verification.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 09
Independent Design Check	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

4.2.6 Maintaining records of Independent Design Check.

4.3 Independent Checker - The Independent Checker may be an HNTB staff member or may be an external resource as required by the contract. The Independent Checker shall be a qualified individual with significant subject matter expertise and must be independent of the production of the design. The Divisional/National Practice or Market Sector Leaders shall be consulted on the selection of Independent Checkers and may require that Independent Checkers be from a different HNTB office. The Independent Checker shall be responsible for:

4.3.1 Conducting independent calculations.

4.3.2 Identify and document comments and errors in the design found through independent calculations.

4.3.3 Reviewing and discussing the results with the designer, reconciling comments and errors and agreeing upon revisions to be made.

4.3.4 Verifying that agreed upon revisions have been incorporated.

4.3.5 Certifying that Independent Design Check has been performed and any identified issues have been resolved, when contractually required.

4.4 Divisional/National Practice/Market Sector Leads (PSL/MSL) – The PSL/MSL shall be responsible for, when required:

4.4.1 Working with the PM and Task Leads to identify critical project elements that require Independent Design Check

4.4.2 Collaborating to identify appropriately qualified Independent Checkers.

5.0 PROCEDURE

5.1 In accordance with Procedure QP 01, Quality Planning, the PM shall, in collaboration with the DQAM and Task Leads shall identify those critical design elements that require Independent Design Check. Those required checks shall be recorded within Form QF 02, Client Deliverable Quality Matrix. Dependent upon project scope, previous successful experience of the local office on similar projects, client sensitivity and project risk, the PM, DQAM, and Task Leads shall consult PSL/MSL in the determination of Independent Design Check (including the identification of appropriately qualified resources to perform those reviews).

5.2 The PM, or designee shall identify qualified resources to perform the Independent Design Check.

5.2.1 The PM, or designee shall provide a listing of the names of Independent Design Checkers to the DQAM for verification during QA Review.

5.2.2 Resources for Independent Design Check and scheduled time shall have been accounted for within the Work Plan.

5.3 When required by the Client Deliverable Quality Matrix, the Task Lead or Designer shall verify that Discipline QC Check has been completed, and then provide the Independent Checker with the design to be checked (by the Start Date documented in the Client Deliverable Quality Matrix). The Task Lead or Designer shall also provide the Independent Checker with an overview of the design, the basis of design and/or approved design criteria, approved design changes, and any pertinent contact information. The Task Lead or Designer shall not provide any original calculations.

5.4 The Independent Checker shall perform independent calculations, without reference to the original calculations, which address as a minimum the structural geometry, material properties, member properties, loading intensities, and load combinations. Calculations shall be based on the structural design drawings provided by the Task Lead or Designer and shall not represent alternative design approaches or redesign.

5.4.1 Independent calculations shall be performed on standard calculation sheets or with approved software, and identified as "Independent Check Calculations"

5.5 The Independent Checker shall document comments or errors identified with the design via hardcopy CheckPrints, in accordance with Procedure QP 05, Quality Check/Review Color Codes,

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 09
Independent Design Check	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

or via Form QF 04 Comment Resolution Form, and provide them to the Task Lead or Designer. If the Independent Checker has no comments to make, they shall record "No Comments" on the hardcopy CheckPrint or Comment Resolution form to provide evidence of the review.

- 5.6** The Task Lead or Designer shall respond to all Independent Checker comments in accordance with Procedure QP 05, Quality Check/Review Color Codes if using hardcopy CheckPrint, or via Form QF 04, Comment Resolution Form and shall document agreement or disagreement (including the rationale for disagreement) with the comment and the planned resolution.

5.6.1 If the Task Lead or Designer disagrees with the Independent Checker, they shall discuss and come to a common resolution, including obtaining documented concurrence from the checker. Remaining disputes shall be escalated to the PM and/or PSL/MSL.

- 5.7** The Task Lead or Designer shall ensure that agreed upon revisions are made to the design and shall document in accordance with Procedure QP 05, Quality Check/Review Color Codes if using hardcopy CheckPrint, or via Form QF 04, Comment Resolution Form, and provide revised design to the Independent Checker for verification.

- 5.8** The Independent Checker, or other qualified, independent checker designated by the Independent Checker (not the Task Lead or Designer), if the original checker is unavailable, shall verify that all agreed upon revisions have been made to the design and shall document verification in accordance with Procedure QP 05, Quality Check/Review Color Codes if using hardcopy CheckPrint, or via Form QF 04, Comment Resolution Form, including documenting concurrence with Disagree status..

5.8.1 Independent Design Check should be complete by the End Date documented in the Client Deliverable Quality Matrix, including the verification of all revisions.

- 5.9** When contractually required, the Independent Checker shall prepare a Certificate indicating the completion of Independent Design Check and the resolution of any identified comments. See Form QF 07, Certificate of Compliance.

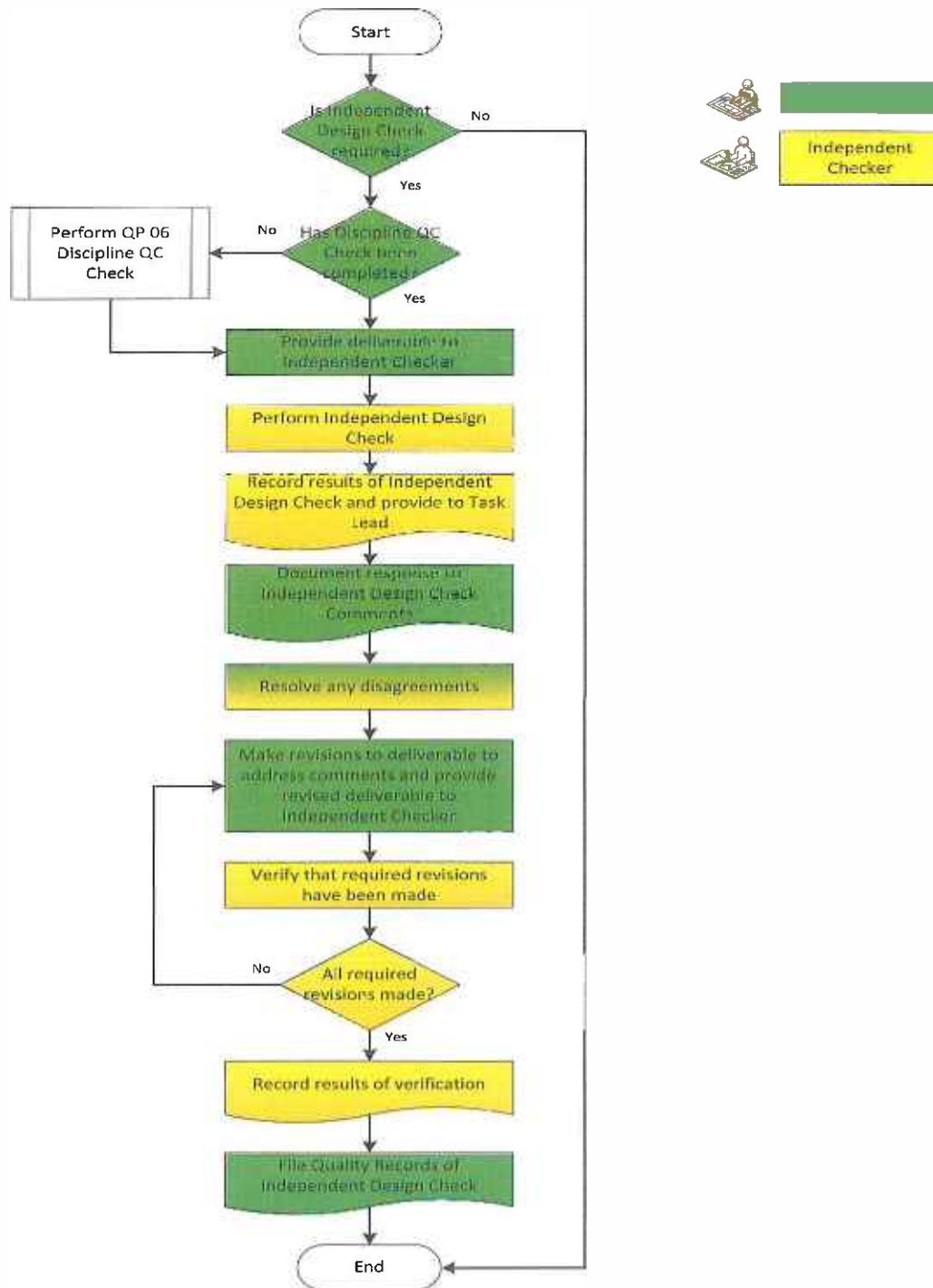
- 5.10** The Task Lead or Designer shall ensure that all Independent Design Check records (including independent check calculations and Form QF 07 Certificate of Compliance, if applicable) are maintained as quality records in accordance with Procedure QP 03, Control of Project Quality Records.

6.0 QUALITY RECORDS

- 6.1** Hardcopy CheckPrints
- 6.2** Independent Design Check Calculations
- 6.3** Form QF 04, Comment Resolution Form
- 6.4** Form QF 07, Certificate of Compliance

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 09
Independent Design Check	Revision Number: 0	Revision Date: 6/19/23	Page 4 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

7.0 FLOWCHART



HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 09
Independent Design Check	Revision Number: 0	Revision Date: 6/19/23	Page 5 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP10
Constructability Review	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities and process for conducting Constructability Reviews of project deliverables. The purpose of Constructability Review is to identify and address opportunities to improve the cost effectiveness of construction, the suitability of the design to construction means and methods, and the clarity of the construction documents.

2.0 SCOPE

This procedure shall apply to Constructability Review performed by the Contractor on design-build project deliverables when required by the Client Deliverable Quality Matrix, prepared in accordance with Procedure QP 01, Quality Planning. Deliverable packages shall not be submitted for Constructability Review until Discipline QC Check, Senior Technical Review (if applicable), and Independent Design Check (if applicable) have been completed and comments resolved and verified.

3.0 REFERENCES

- 3.1 Procedure QP 01 Quality Planning
- 3.2 Procedure QP 03, Control of Project Quality Records
- 3.3 Procedure QP 05, Quality Check/Review Color Codes
- 3.4 Procedure QP 20, Bluebeam QMS Review

4.0 ROLES and RESPONSIBILITIES

4.1 Project Manager (PM) – The PM, or designee shall be responsible for:

- 4.1.1 Identifying, in concert with the Contractor, Task Leads and the DQAM, the design deliverables to undergo Constructability Review and documenting those reviews in the Client Deliverable Quality Matrix.
- 4.1.2 Determining in concert with the Contractor and DQAM, the method for performing and capturing the records of Constructability Review, i.e., through the use of Bluebeam, hardcopy CheckPrint, or by capturing Constructability Review comments on Form QF 04, Comment Resolution Form.
- 4.1.3 Scheduling/facilitating the Constructability Review
- 4.1.4 Compiling and submitting the deliverable package in accordance with the project schedule for Constructability Review.
- 4.1.5 Resolving conflicts between Task Leads and Constructability Reviewers
- 4.1.6 Maintaining records of Constructability Review.

4.2 Design Quality Assurance Manager (DQAM) – The DQAM shall be responsible for:

- 4.2.1 Working with the Contractor, PM and Task Leads to identify the design deliverables to undergo Constructability Review.
- 4.2.2 Working with the Contractor, PM, and Task Leads to determine the method for performing and capturing the records of Constructability Review.
- 4.2.3 Training Constructability Reviewers on the method to be used. Note: this may require involvement of the Bluebeam Subject Matter Expert to provide Bluebeam training when applicable.
- 4.2.4 Prior to conducting Constructability Review, verifying that Discipline QC Check, Senior Technical Review (if applicable), and Independent Design Check (if applicable) have been completed, and comments resolved and verified.

4.3 Constructability Reviewers – The Constructability Reviewer shall be a Contractor representative with sufficient, relevant experience in the area of construction management and/or

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP10
Constructability Review	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

construction means and methods. The Constructability Reviewer shall be independent of the production of the deliverable being checked, but should have familiarity with the project, the client/owner, project requirements, the approved design criteria, and project BIM requirements (when the deliverable is BIM). Constructability Reviewers shall be responsible for:

- 4.3.1 Reviewing the deliverable package for the cost effectiveness, and the suitability of the design to construction means and methods.
- 4.3.2 Documenting specific review comments as a result of the review.
- 4.3.3 Reviewing comments with the Task Leads and/or PM, reconciling comments and agreeing upon revisions to be made.
- 4.3.4 Verifying that agreed upon revisions have been incorporated.
- 4.4 **Task Lead** - The Task Lead shall be responsible for:
 - 4.4.1 Assisting the PM in determining the deliverables for which Constructability Review shall be performed, including determining qualified resources.
 - 4.4.2 Responding to and resolving comments made by Constructability Reviewers.
 - 4.4.3 Resubmitting revised drawings or other construction documents to the Constructability Reviewer for verification.

5.0 PROCEDURE

- 5.1 In accordance with Procedure QP 01, Quality Planning, the PM, Contractor, Task Leads and DQAM shall determine those design packages requiring constructability review. Those required reviews shall be recorded within Form QF 02, Client Deliverable Quality Matrix.
- 5.2 The PM, in concert with the Contractor, Task Leads and DQAM, shall determine the method for performing and capturing record of Constructability Review, i.e., via Bluebeam, hardcopy CheckPrint, or QF 04 Comment Resolution Form.
- 5.3 The DQAM shall train the identified Constructability Reviewers in the method to be used to document, respond to, resolve, and verify Constructability Review comments (i.e., Bluebeam, hardcopy CheckPrint, or QF 04 Comment Resolution Form). Note: If using Bluebeam, the DQAM may coordinate with the Delivery Technology Subject Matter Expert to provide Bluebeam training. Constructability Reviewers shall not be given access to the review session until they have received training.
- 5.4 The DQAM shall verify that Discipline QC Check, Senior Technical Review (if applicable), and Independent Design Check (if applicable) have been completed and comments resolved and verified prior to beginning Constructability Review. Once a deliverable has been submitted for Constructability Review, it should be in a completed state relative to that milestone or phase so that the review performed represents the deliverable as it will be submitted to the client and to prevent additional design work from not being checked.
- 5.5 The PM, or designee, shall compile the deliverable package and shall submit it for Constructability Review, by the Start Date documented in the Client Deliverable Quality Matrix.
 - 5.5.1 If the review is done via Bluebeam, Constructability Reviewers shall be invited to the session and the package shall be posted for review in accordance with Procedure QP 20, Bluebeam QMS Review. Note: If using Bluebeam for Constructability Review, the CheckPrint Stamp may be electronically incorporated to provide visible tracking of the review process at the discretion of the PM, DQAM, or Task Lead.
 - 5.5.2 Otherwise, the PM shall make the deliverable package available to the Constructability Reviewers along with Form QF 04 Comment Resolution Form. If the deliverable being reviewed is in a MS Word format, the review may be completed using MS Word Track Changes and accompanied by Form QF 05, QC Check/Review Record.
- 5.6 Constructability Reviewers shall review the deliverable package with specific attention to:
 - 5.6.1 Adequacy and clarity of information
 - 5.6.2 Tolerances

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP10
Constructability Review	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

- 5.6.3 Site access and restrictions
- 5.6.4 Traffic maintenance and protection during construction
- 5.6.5 Construction sequence and methods
- 5.6.6 Cost effectiveness of design and materials
- 5.6.7 Availability of materials
- 5.6.8 Construction equipment and required labor
- 5.6.9 Consistency with environmental and other permit requirements
- 5.6.10 Potential interferences and conflicts between construction disciplines
- 5.6.11 Safety requirements
- 5.7 Constructability Reviewers shall document their review comments. Comments shall be detailed enough to facilitate understanding by the Task Lead for response and resolution. If the Constructability Reviewer has no comments, they shall indicate "No Comments" within the CheckPrint to provide evidence of the review, or if using hardcopy CheckPrints, may apply a diagonal yellow slash across the sheet, indicating the contents of the sheet have been checked and are correct.
 - 5.7.1 If using Bluebeam, the Constructability Reviewers shall document their review comments in accordance with Procedure QP 20, Bluebeam QMS Review.
 - 5.7.2 Otherwise, Constructability Reviewers shall document their review comments on hardcopy CheckPrints in accordance with Procedure QP 05, Quality Check/Review Color Codes, using MS Word Track Changes (accompanied by Form QF 05), or on Form QF 04 Comment Resolution Form.
- 5.8 The Task Lead shall review all the Constructability Reviewers comments and shall document a response or resolution to each comment, including documentation of the rationale for disagreement or deferral. If there is a disagreement between the Task Lead and the Constructability Reviewer, they shall come to an agreed upon resolution and obtain documented concurrence of the reviewer. If disputes continue the issue shall be escalated to the PM for resolution.
 - 5.8.1 If using Bluebeam, the Task Lead shall document their response and resolution to comments in accordance with Procedure QP 20, Bluebeam QMS Review.
 - 5.8.2 Otherwise, the Task Lead shall document their response and resolution to the comments on the hardcopy CheckPrint in accordance with Procedure QP 05, Quality Check/Review Color Codes, using MS Word Track Changes, or within Form QF 04 Comment Resolution Form.
- 5.9 The Task Lead shall make the necessary revisions to the deliverable and record update activities.
 - 5.9.1 If using Bluebeam, the Task Lead shall record update in accordance with Procedure QP 20, Bluebeam QMS Review.
 - 5.9.2 Otherwise, the Task Lead shall record update on the hardcopy CheckPrint in accordance with Procedure QP 05, Quality Check/Review Color Codes, using MS Word Track Changes, or within Form QF 04 Comment Resolution Form.
- 5.10 Once all agreed upon revisions have been made the Task Lead shall provide the revised deliverable to the Constructability Reviewer for verification.
- 5.11 The Constructability Reviewer shall verify that all agreed upon revisions have been made, and shall document that verification, including documenting concurrence with a Disagree or Deferred status.
 - 5.11.1 If using Bluebeam, the Constructability Reviewer shall record verification in accordance with Procedure QP 20, Bluebeam QMS Review.
 - 5.11.2 Otherwise, the Constructability Reviewer shall record verification on the hardcopy CheckPrint in accordance with Procedure QP 05, Quality Check/Review Color Codes, using MS Word Track Changes, or within Form QF 04 Comment Resolution Form.
 - 5.11.3 Constructability Review should be complete by the End Date documented in the Client Deliverable Quality Matrix, including the verification of all revisions.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP10
Constructability Review	Revision Number: 0	Revision Date: 6/19/23	Page 4 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

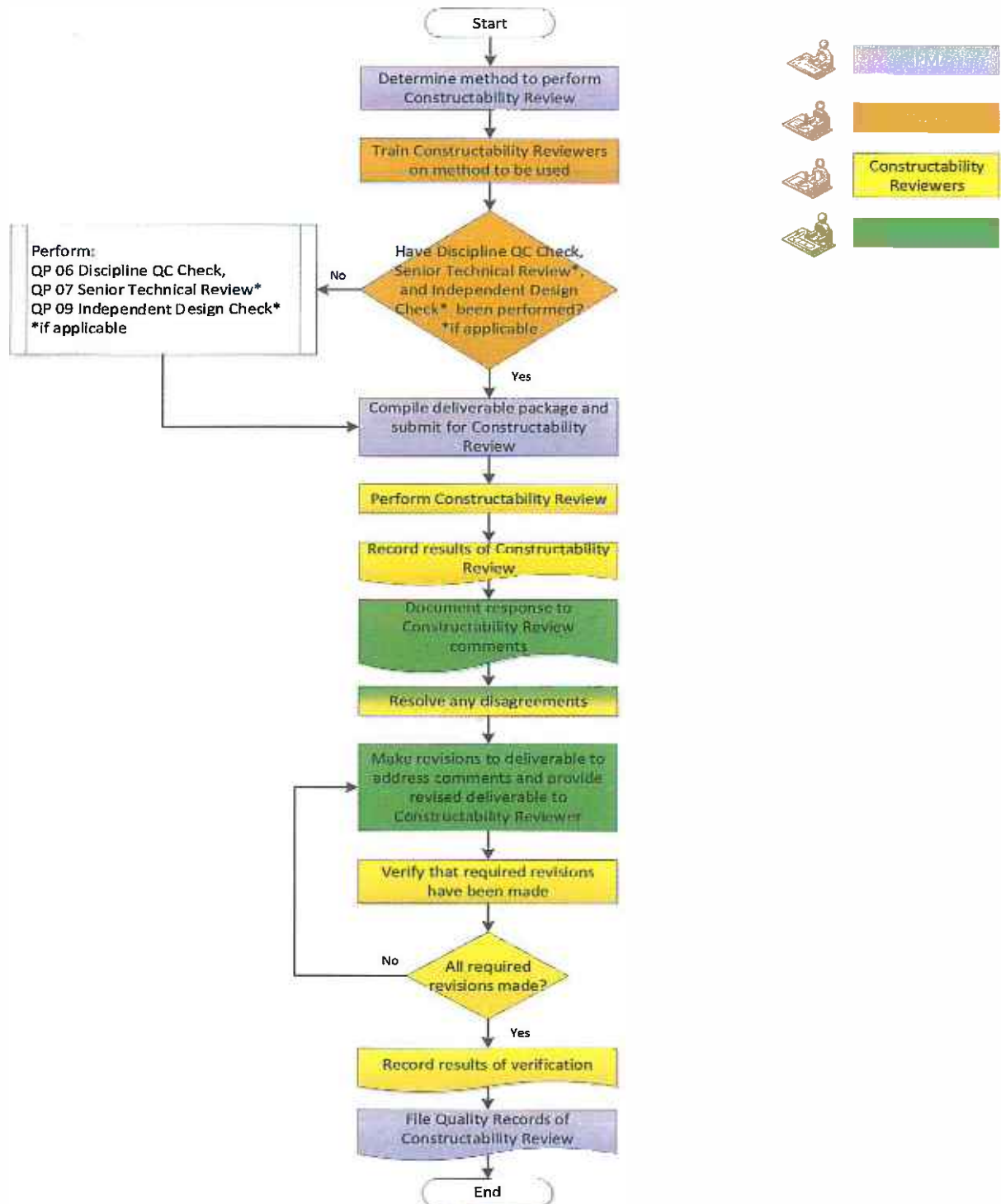
- 5.12** If the review was completed using Bluebeam, the PM, or designee, shall generate a Constructability Review Summary Log, showing all the comments, evidence of response, revision and verification and shall maintain a copy of this summary report along with copies of all electronic CheckPrints in accordance with Procedure QP 03, Control of Project Quality Records.
- 5.13** If the review was not completed using Bluebeam, the PM, or designee, shall maintain a copy of all electronic or hardcopy CheckPrints, QF 05, and/or Form QF 04 Comment Resolution Form in accordance with Procedure QP 03, Control of Project Quality Records. When MS Track Changes application clearly demonstrates the individuals by name and role in the quality process, there is no need for the additional QF 05 Form.
- 5.14** At the conclusion of Constructability Review all deferred comments shall be captured on QF 04, Comment Resolution Form and maintained for resolution and verification during the subsequent milestone review.

6.0 QUALITY RECORDS

- 6.1** CheckPrints (hardcopy or electronic)
- 6.2** Constructability Review Summary Log (Bluebeam)
- 6.3** Form QF 04, Comment Resolution Form
- 6.4** QF 05, QC Check/Review Record

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP10
Constructability Review	Revision Number: 0	Revision Date: 6/19/23	Page 5 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

7.0 FLOWCHART



HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP10
Constructability Review	Revision Number: 0	Revision Date: 6/19/23	Page 6 of 6
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 11
Visual Check	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 4
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities and process for conducting a final visual check of the actual deliverable being submitted to a client. The purpose of the Visual Check is to ensure that the project deliverable is complete, in the proper order, has been scanned, printed or converted (e.g., to .pdf) as intended, and is representative of the project deliverable that have been checked/reviewed, updated and verified in accordance with the Design Quality Management Plan (DQMP).

2.0 SCOPE

This procedure shall apply to all project deliverables prior to the submittal to the client. Visual Check must be performed on the format in which the deliverable is to be presented to the client. All other quality checks and reviews assigned for the deliverable in accordance with the Deliverable Quality Matrix, with the exception of QA Review, shall have been completed, comments resolved and verified prior to Visual Check.

3.0 REFERENCES

- 3.1 Procedure QP 03, Control of Project Quality Records
- 3.2 Procedure QP 05, Quality Check/Review Color Codes
- 3.3 Procedure QP 20, Bluebeam QMS Review

4.0 ROLES and RESPONSIBILITIES

- 4.1 **Project Manager (PM)** – The PM, or designee, shall be responsible for:
 - 4.1.1 Verifying that all required quality checks and reviews have been completed, and comments resolved and verified.
 - 4.1.2 Notifying CADD Manager, or other party responsible for final production of the deliverable, to scan, compile and print, or convert the project deliverable for Visual Check.
- 4.2 **CADD Manager or other party responsible for production** - The CADD Manager, or other party responsible for production of the deliverable, shall be responsible for:
 - 4.2.1 Compiling the deliverable package.
 - 4.2.2 Converting the deliverable package to the client required format.
 - 4.2.3 Scanning, printing or plotting a copy of the deliverable in the client required format.
 - 4.2.4 Making adjustments to printer/plotter, or electronic files to address issues identified during Visual Check.
- 4.3 **Visual Checker(s)** – The Visual Checker(s) may be the PM or other designee independent of the compilation of the deliverable. The Visual Checker(s) shall be responsible for:
 - 4.3.1 Verifying that deliverables are complete, in the proper order, have been scanned, printed, plotted, or converted as intended, and are consistent with the electronic files that have been checked/reviewed, updated and verified in accordance with the DQMP.
 - 4.3.2 Recording the results of the Visual Check and providing to the CADD Manager or other responsible party for resolution.
 - 4.3.3 Verifying that print/plot or conversion adjustments have been made.
 - 4.3.4 Maintaining records of Visual Check.

5.0 PROCEDURE

- 5.1 The PM, or designee, shall verify that all required quality checks and reviews, in accordance with the Client Deliverable Quality Matrix have been completed, with the exception of QA Review.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 11
Visual Check	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 4
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

- 5.2 The PM shall notify the CADD Manager, or other party responsible for deliverable production, to compile the deliverable package and to scan, print/plot or convert it in accordance with client requirements in preparation for Visual Check. Visual Check shall commence by the Start Date in the Client Deliverable Quality Matrix.
- 5.3 The CADD Manager, or other party responsible for deliverable production, shall compile the deliverable and shall print/plot or convert the deliverable package in accordance with client requirements.
- 5.4 The Visual Checker(s) shall review the scanned, printed/plotted or converted deliverable to verify that the deliverable is complete, in the proper order, and has been scanned, printed/plotted or converted as intended. This review also includes verification that the scanned, printed/plotted deliverable is consistent with the electronic files which have been checked/reviewed, updated and verified in accordance with the DQMP.
- 5.5 Visual Checker(s) shall document their review comments. Comments shall be detailed enough to facilitate understanding by the CADD Manager or designee for response and resolution. If the Visual Checker has no comments, they shall indicate "No Comments" within the CheckPrint to provide evidence of the review, or if using hardcopy CheckPrints, may apply a diagonal yellow slash across the sheet, indicating the contents of the sheet have been checked and are correct.
 - 5.5.1 If using Bluebeam, the Visual Checker(s) shall document their review comments in accordance with Procedure QP 20, Bluebeam QMS Review. If the Visual Checker has no comments, they shall indicate "No Comments".
 - 5.5.2 Otherwise, the Task Lead shall document their response and resolution to the comments on the hardcopy CheckPrint in accordance with Procedure QP 05, Quality Check/Review Color Codes, or within Form QF 04 Comment Resolution Form.
- 5.6 The CADD Manager or designee shall review all the Visual Checker(s) comments and shall document a response or resolution to each comment, including documentation of the rationale for disagreement or deferral. If there is a disagreement between the CADD Manager or designee and the Visual Checker, they shall come to an agreed upon resolution and obtain documented concurrence of the Visual Checker. If disputes continue the issue shall be escalated to the PM for resolution.
 - 5.6.1 If using Bluebeam, the CADD Manager or designee shall document their response and resolution to comments in accordance with Procedure QP 20, Bluebeam QMS Review.
 - 5.6.2 Otherwise, the CADD Manager or designee shall document their response and resolution to the comments on the hardcopy CheckPrint in accordance with Procedure QP 05, Quality Check/Review Color Codes, or within Form QF 04 Comment Resolution Form.
- 5.7 The CADD Manager, or other party responsible for deliverable production, shall make adjustments to the printed/plotted or converted electronic file and document update activities within the hardcopy CheckPrint in accordance with QP 05, Quality Check/Review Color Codes, within QF 04, Comment Resolution Form, or within Bluebeam in accordance with QP 20, Bluebeam QMS Review. The CADD Manager or designee shall provide updated printed/plotted or electronic copies to the Visual Checker for verification.
- 5.8 The Visual Checker(s) shall review the updated deliverable and shall record verification within the hardcopy CheckPrint in accordance with QP 05, Quality Check/Review Color Codes, within QF 04, Comment Resolution Form, or within Bluebeam in accordance with QP 20, Bluebeam QMS Review. Visual Check shall be completed by the End Date in the Client Deliverable Quality Matrix, including the verification of any comments.
- 5.9 The Visual Checker(s) shall maintain records of Visual Check in accordance with Procedure QP 03, Control of Project Quality Records.

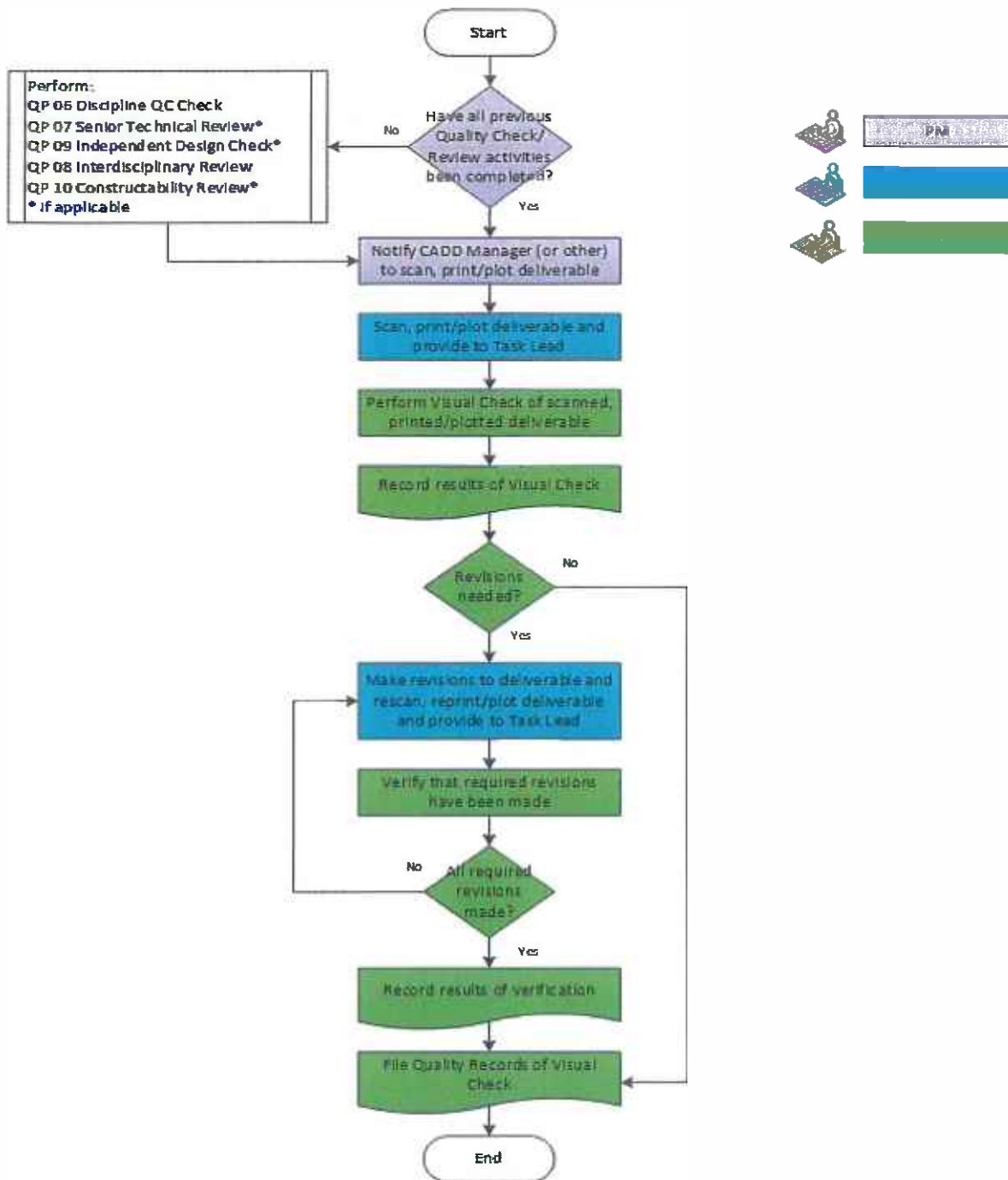
6.0 QUALITY RECORDS

- 6.1 CheckPrints (hardcopy or electronic)
- 6.2 Form QF 04, Comment Resolution Form

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 11
Visual Check	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 4
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

6.3 Visual Check Summary Log (Bluebeam)

7.0 FLOWCHART



HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acufia	Document number: QP 11
Visual Check	Revision Number: 0	Revision Date: 6/19/23	Page 4 of 4
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 12
Quality Assurance (QA) Review	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities, and process for conducting Quality Assurance (QA) Reviews of project deliverables. The purpose of QA Review is to ensure that the deliverable has been processed in accordance with the Design Quality Management Plan (DQMP), and to ensure that all required checks and reviews have been completed, and comments resolved and verified (including the existence and proper filing of required records) prior to submittal of the deliverable to the client.

2.0 SCOPE

This procedure shall apply to all project deliverables being submitted to a client, inclusive of subconsultant deliverables.

All planned quality check and review activities, in accordance with the Client Deliverable Quality Matrix, prepared in accordance with Procedure QP 01, Quality Planning, shall have been completed, and all comments resolved and verified prior to completion of QA Review. All previous quality check and review activities shall have been scheduled to allow completion and resolution before QA Review and sufficient time shall be allotted for an effective QA Review. QA Review shall occur on all deliverables prior to submission to the client.

3.0 REFERENCES

3.1 Procedure QP 03, Control of Project Quality Records

4.0 ROLES and RESPONSIBILITIES

4.1 Project Executive (PEX) – The PEX shall be engaged in and responsible for decisions relative to issues related to PQP nonconformance.

4.2 Project Manager (PM) – The PM or designee shall be responsible for:

- 4.2.1 Ensuring that production and required quality check and review activities are completed in accordance with the project schedule and the Client Deliverable Quality Matrix.
- 4.2.2 Ensuring that all required quality check and review activities have been completed, and comments resolved and verified prior to submission for QA Review, including the resolution and verification of deferred comments and/or client comments from a previous submittal.

4.3 Task Lead - The Task Lead shall be responsible for:

- 4.3.1 Providing a listing of all identified independent and qualified Checkers and Reviewers to the DQAM.
- 4.3.2 Ensuring all other required quality checks and reviews in accordance with the Client Deliverable Quality Matrix have been completed, including the resolution and verification of deferred comments and/or client comments from a previous submittal.
- 4.3.3 Submitting deliverables and link to or location of quality check and review records to the DQAM for QA Review.
- 4.3.4 Responding to and resolving comments made by DQAM.
- 4.3.5 Resubmitting revised deliverables and quality records or other evidence of conformance with the DQMP to the DQAM for verification, when necessary.

4.4 Design Quality Assurance Manager (DQAM) – The DQAM shall be responsible for:

- 4.4.1 Reviewing the Client Deliverable Quality Matrix to identify the required quality checks and reviews to have been completed for the deliverable.
- 4.4.2 Verifying through review of completed quality check and review records that required

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 12
Quality Assurance (QA) Review	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

quality checks and reviews have been completed, and all comments resolved and verified, including the resolution and verification of deferred comments and/or client comments from a previous submittal.

- 4.4.3 Verifying that deliverables have been checked/reviewed by independent, qualified checkers and reviewers as provided by the Task Leads.
- 4.4.4 Verifying through certification or other subconsultant quality records that subconsultant deliverables have been checked and reviewed in accordance with the subconsultant quality plan or HNTB PQP (whichever is applicable).
- 4.4.5 Documenting the results of QA Review and providing those results to PM or Task Lead.
- 4.4.6 Escalating issues relative to DQMP nonconformance to the PM, OQM and/or PEX as well as any concerns over the implementation of the DQMP, unapproved additional concurrence of reviews, compressed review schedules, excessive deferred comments, or excessive client comments, etc.
- 4.4.7 Verifying that nonconformances have been addressed, when necessary.
- 4.4.8 Certifying that deliverables have been processed in accordance with the DQMP, when contractually required.
- 4.4.9 Maintaining records of QA Review.

5.0 PROCEDURE

- 5.1 The PM, DM or Task Leads shall provide a list of the independent, qualified checkers and reviewers for all deliverables to the DQAM.
- 5.2 The PM and/or Task Leads shall verify that all required quality checks and reviews, in accordance with the Client Deliverable Quality Matrix have been completed, including resolution and verification of deferred comments and/or client comments from a previous submittal prior submission for QA Review, including deliverables prepared by other HNTB offices and subconsultants.
 - 5.2.1 If not, the PM and/or Task Leads, shall work with other HNTB offices, Subconsultants, and applicable reviewers to ensure these checks and reviews are completed prior to QA Review.
- 5.3 The PM or Task Lead shall provide the deliverable, along with links to or locations of corresponding quality check and review records to the DQAM for QA Review by the Start Date in the Client Deliverable Quality Matrix. Note, while there is a defined Start and End Date in the Client Deliverable Quality Matrix for QA Review, the DQAM may begin this effort as soon as the earliest scheduled review has been completed.
- 5.4 The DQAM shall review the Client Deliverable Quality Matrix to determine the required quality checks and reviews that should have been completed for the deliverable. The DQAM shall note the required checks and reviews on Form QF 08, QA Review Record.
- 5.5 The DQAM shall also note on Form QF 08, QA Review Record, whether deferred comments or client comments from a previous submittal are intended to be resolved and verified during the QA Review at hand.
- 5.6 The DQAM shall verify through review of required quality checks and review records that all the required checks and reviews occurred, that all required reviewers participated (in the case of Interdisciplinary Review), and that all comments resulting from such reviews were responded to, resolved, and verified, including the resolution and verification of deferred comments and/or client comments from a previous submittal. For subconsultants following the HNTB DQMP, the DQAM shall verify completion of the Subconsultant Certificate of DQMP Compliance (QF 07A) as well as quality records required by this DQMP. For subconsultants following their own approved quality plan, the DQAM shall verify existence of a Certificate of Compliance prepared by the Subconsultant, or quality records determined as required by the PM or designee.
 - 5.6.1 The DQAM shall verify that checks have been performed by those individuals identified

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 12
Quality Assurance (QA) Review	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

as independent, qualified checkers and reviewers.

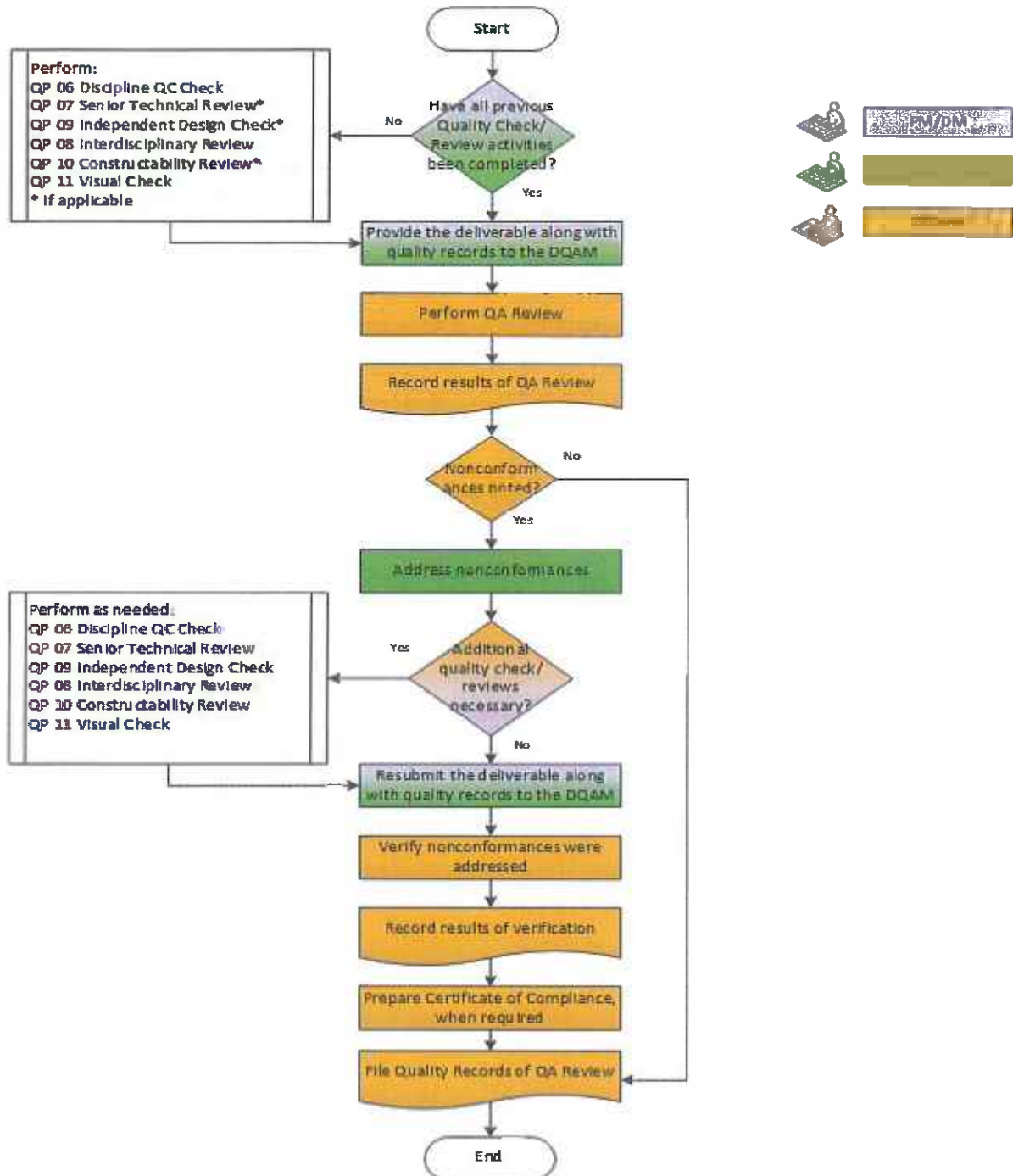
- 5.6.2 The DQAM shall also verify that all quality check and review records have been maintained in the appropriate filing location in accordance with Procedure QP 03, Control of Project Records.
- 5.7 The DQAM shall document the results of the QA Review on Form QF 08, QA Review Record and provide the results to the PM or Task Lead.
- 5.8 If there were instances of nonconformance with the DQMP requirements or the Client Deliverable Quality Matrix, the PM or Task Lead shall determine the cause of the nonconformance and shall resolve the nonconformance and provide the necessary evidence to the DQAM for verification.
- 5.9 The DQAM shall escalate issues relative to DQMP nonconformance as well as any concerns over the implementation of the DQMP, unapproved additional concurrence of reviews, compressed review schedules, excessive deferred comments, or excessive client comments, etc. to the PM, PEX, and or the DBCE or CQO for resolution as appropriate.
- 5.10 The DM and DQAM shall determine based upon the nature of the nonconformance and the scope of the remedy if additional quality check or reviews should be repeated prior to resubmittal for QA Review.
- 5.11 The DQAM shall review provided evidence to verify the resolution of nonconformances and shall note verification on Form QF 08, QA Review Record.
- 5.12 When contractually required, the DQAM shall prepare a Certificate of Compliance indicating that the deliverable has been processed in accordance with the DQMP and that required quality checks and reviews have been performed, see Form QF 07, Certificate of Compliance.
- 5.13 Deliverables shall not be submitted to clients without successful completion of the QA Review process.
- 5.14 The DQAM shall ensure that all QA Review records (including Form QF 07, Certificate of Compliance) are maintained as quality records in accordance with Procedure QP 03, Control of Project Quality Records.

6.0 QUALITY RECORDS

- 6.1 Form QF 08, QA Check Record
- 6.2 Form QF 07, Certificate of Compliance

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 12
Quality Assurance (QA) Review	Revision Number: 0	Revision Date: 6/19/23	Page 4 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

7.0 FLOWCHART



HNTB	Prepared by: Kelly Lumen	Approved by: Lily Acufia	Document number: QP 12
Quality Assurance (QA) Review	Revision Number: 0	Revision Date: 6/19/23	Page 5 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 13
Client/Owner/Third Party Review and Comment	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities, and process for making formal submittal of project deliverables to clients/owners/third parties, receiving comments on those deliverables, responding to, resolving, and verifying those comments.

2.0 SCOPE

This procedure shall apply to client/owner/third party comment resolution on all submittals of project deliverables.

3.0 REFERENCES

- 3.1 Procedure QP 06, Discipline QC Check
- 3.2 Procedure QP 03, Control of Project Quality Records
- 3.3 Procedure QP 19, Bluebeam Client-Owner-Third Party Review

4.0 ROLES and RESPONSIBILITIES

4.1 Project Manager (PM) – The PM, or designee, shall be responsible for:

- 4.1.1 Making the formal submittal of a deliverable to the client/owner in accordance with client requirements.
- 4.1.2 Determining, in concert with the Contractor, Owner, and the DQAM, the format for performing Client-Owner-Third Party Reviews, i.e., use of Bluebeam, or use of a comment resolution form.
- 4.1.3 Receiving, consolidating, and distributing client/owner comments to Task Leads, including Subconsultants for response/resolution.
- 4.1.4 Liaising with client/owner/third party to assist Task Lead or Subconsultant in understanding the nature of comments, if necessary.
- 4.1.5 Providing response/resolution to comments to client/owner/third party to seek agreement/approval of resolution.
- 4.1.6 Facilitate comment resolution meetings with the Task Leads and the client/owner/third party, if necessary, to identify agreeable resolutions.
- 4.1.7 Determining in concert with the DQAM, the level of quality checks/reviews necessary for revised deliverables (when related to Final Design submittal) dependent upon the agreed upon/approved resolution.
- 4.1.8 Providing revised deliverables to the client/owner/third party following comment resolution and verification.

4.2 Design Quality Assurance Manager (DQAM) – The DQAM shall be responsible for:

- 4.2.1 Working with the PM to determine the level of quality checks/reviews required for revised deliverables (when related to the final milestone submittal) dependent upon the agreed upon/approved resolution.
- 4.2.2 Ensuring Client-Owner-Third Party Reviewers are familiar with the format chosen and working with the Delivery Technology Subject Matter Expert to provide any necessary training if Bluebeam is chosen.

4.3 Task Leads - The Task Leads or their designees shall be responsible for:

- 4.3.1 Reviewing and responding to each client/owner/third party comment.
- 4.3.2 Documenting response and planned resolution for each comment.
- 4.3.3 Participating in comment resolution meetings with client/owner/third party if necessary.
- 4.3.4 Ensuring deliverables are revised in accordance with agreed upon/approved resolutions.
- 4.3.5 Submitting revised deliverables along with Client-Owner-Third Party comments,

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 13
Client/Owner/Third Party Review and Comment	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

response, and planned resolution to the Verifier for verification.

4.3.6 Maintaining records of client/owner/third party comment resolution and verification.

4.4 Verifier – The Verifier shall be a qualified individual with sufficient, relevant experience in the discipline being commented upon. A Verifier is typically a senior individual, may be the Task Lead, and in some cases, may possess specific subject matter expertise. The Verifier shall be independent of the revisions made to the deliverable being checked, but should have familiarity with the client, contractual requirements, approved design criteria, and project BIM requirements (when the deliverable is BIM). The Verifier shall be responsible for:

4.4.1 Verifying that client/owner/third party comments have been addressed in accordance with the agreed upon/approved resolution.

4.4.2 Recording verification of resolution of comments.

5.0 PROCEDURE

5.1 The PM, or designee shall submit formal deliverables in accordance with client requirements.

5.2 The client/owner/third party may make comments on the formal deliverable to be responded to and resolved. If the client/owner has a comment resolution form to be used for this purpose, it may be used, however, it is preferred that the comment resolution form used contains fields for response, resolution, and verification of comments. It may be desirable to encourage the client/owner/third party to utilize Form QF 04, Comment Resolution Form, as it contains these fields.

5.2.1 The Client-Owner-Third Party Reviewer may make comments using Bluebeam in accordance with QP 19, Bluebeam Client-Owner-Third Party Review.

5.3 The PM, or designee, shall receive client/owner/third party comments. If the comments are not received within a comment resolution form, Bluebeam, the PM, or designee, shall transfer the comments to Form QF 04, Comment Resolution Form to facilitate complete tracking of, resolution and verification of all comments.

5.3.1 In instances in which the client/owner/third party provides comments via a marked-up copy of the deliverable, it may not be necessary to transcribe each comment to Form QF 04, however, each comment then shall be noted as A, B, C, etc., and then correspondingly A, B, C, etc. may be entered into Form QF 04 to represent the comment. The client/owner/third party markup must be attached to Form QF 04 and then resolution and verification of each comment shall be noted on Form QF 04 in accordance with this procedure.

5.4 The PM, or designee, shall distribute the client/owner/third party review comments to the Task Leads, or their designees for response.

5.4.1 The PM shall serve as a liaison between the client/owner/third party and the Task Lead, or designees, to facilitate understanding of any potentially unclear comments.

5.5 The Task Leads or their designees shall respond to each comment to indicate whether they agree or disagree with the comment and shall propose a resolution to each comment. If the comment is to be deferred to a future submittal, this must be noted as well. Responses and resolution to be recorded within Form QF 04, Comment Resolution Form, or the client's form if applicable, or within the Bluebeam session.

5.5.1 It will be important to refer to contract requirements and approved design criteria when reviewing client/owner comments to identify any potential contract changes, which would then be handled via the Project Change Management Plan.

5.6 The PM, or designee, shall review responses by Task Leads to ensure consistency between disciplines.

5.7 The PM shall provide responses and proposed resolutions to the client/owner/third party to seek agreement or approval of the proposed resolution or deferral.

5.7.1 The PM shall facilitate a comment resolution meeting with the client/owner/third party and

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 13
Client/Owner/Third Party Review and Comment	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

Task Leads if necessary, to reach an agreeable resolution.

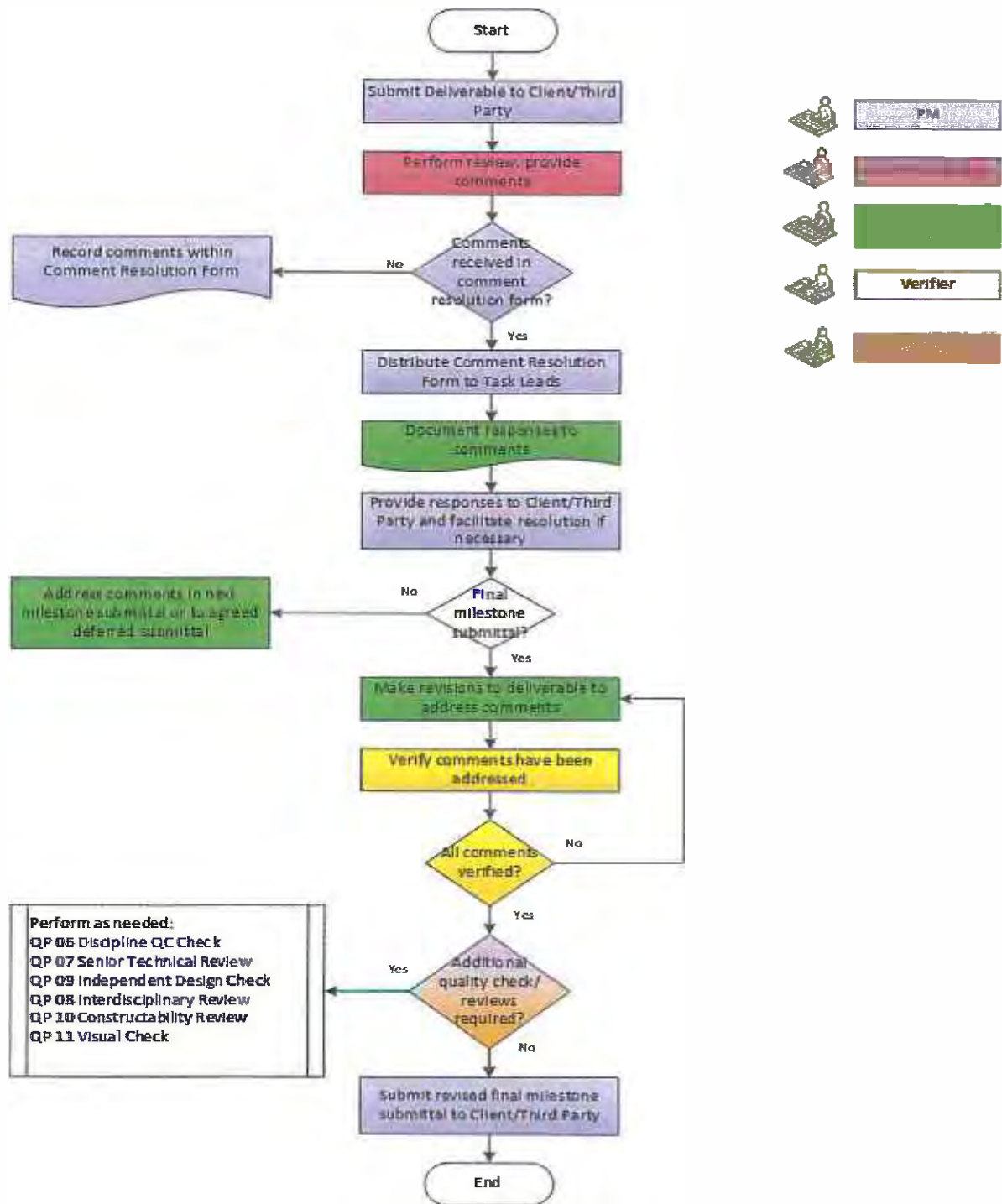
- 5.8 Unless at the final milestone submittal for that deliverable, the client/owner/third party comments will typically be addressed in the next milestone submittal, and then checked in accordance with Procedure QP 06, Discipline QC Check, but if at the final milestone submittal, then the comments shall be addressed in accordance with the remainder of this procedure.
- 5.9 Dependent upon the agreed upon/approved resolution, the PM/DQAM shall make a determination as to the level of quality checks and reviews to be applied to the revised deliverable (in the case of the final milestone submittal) prior to resubmission to the client.
- 5.10 The Task Lead, or designee, shall make revisions to the deliverable to address the client/owner/third party comments and shall submit the revised deliverable for the required quality checks/reviews in accordance with the DQMP, as determined by the PM/DQAM. Records of all required re-checks/reviews shall be maintained in accordance with Procedure QP 03, Control of Project Quality Records.
- 5.11 The Verifier shall review the revised deliverable to verify that the agreed upon/approved resolution has been made and shall indicate verification on Form QF 04, Comment Resolution Form, or on the client's form if used, or within the Bluebeam session.
- 5.12 Upon verification, the Task Lead shall provide the revised deliverable to the PM for resubmission to the client.
 - 5.12.1 If not at the final milestone submittal for the deliverable, the Task Lead and PM shall assure that client comments are addressed and checked as part of Procedure QP 06, Discipline QC Check during the next milestone submittal.
- 5.13 The Task Lead shall maintain records of client comment resolution in accordance with Procedure QP 03, Control of Project Quality Records

6.0 QUALITY RECORDS

- 6.1 Form QF 04, Comment Resolution Form
- 6.2 Client-Owner-Third Party Review Summary Log (Bluebeam)
- 6.3 Other quality re-check/review records, as necessary

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 13
Client/Owner/Third Party Review and Comment	Revision Number: 0	Revision Date: 6/19/23	Page 4 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

7.0 FLOWCHART



HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 13
Client/Owner/Third Party Review and Comment	Revision Number: 0	Revision Date: 6/19/23	Page 5 of 5
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 14
Control of Design Changes	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 4
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities and process for controlling changes to design after design deliverables have been released for construction, to assure that adequate quality checks and reviews are applied to revised design deliverables.

2.0 SCOPE

This procedure shall apply to all changes to design deliverables after they have been released for construction. This procedure applies to changes to design directed or requested by the owner, contractor, designer or subconsultant.

3.0 REFERENCES

- 3.1 Procedure QP 01, Quality Planning
- 3.2 Procedure QP 03, Control of Project Quality Records
- 3.3 Procedure QP 12, QA Review

4.0 ROLES and RESPONSIBILITIES

- 4.1 **Originator** – The Originator shall be responsible for:
 - 4.1.1 Submitting direction or requests for design changes
- 4.2 **Project Manager (PM)** – The PM, or designee, shall be responsible for:
 - 4.2.1 Reviewing and approving, or obtaining owner approval, for requested design changes.
 - 4.2.2 Pursuing contract change if approved change warrants.
 - 4.2.3 Maintaining a log of design change requests.
 - 4.2.4 Evaluating the impact of design changes on other design deliverables/disciplines and coordinating the changes with all required Task Leads.
 - 4.2.5 Distributing approved design change requests to Task Leads.
 - 4.2.6 Ensuring revised design deliverables undergo the same quality check and review processes as original design or working in concert with DQAM to identify limited checks or reviews based upon content of revision.
- 4.3 **Design Quality Assurance Manager (DQAM)** – The DQAM shall be responsible for:
 - 4.3.1 Working with the PM to determine quality checks and reviews to be performed on revised deliverables.
 - 4.3.2 Performing QA Review on all revised design deliverables.
- 4.4 **Task Lead** - The Task Lead shall be responsible for:
 - 4.4.1 Making revisions to design deliverables in accordance with the approved design change request and coordinating with other disciplines to assess impact of changes to other disciplines.
 - 4.4.2 Submitting revised design deliverables for quality checks and reviews in accordance with the Client Deliverable Quality Matrix.

5.0 PROCEDURE

- 5.1 The Originator (may be the Owner, Contractor, Designer or potentially a subconsultant) shall generate a request for a change to design documents by filling out Form QF 09, Design Change Request and submit it to the PM. Note: If the change is being directed by the Client or Owner, the PM, or designee, may fill out the form on their behalf.
- 5.2 The PM, or designee, shall enter the Design Change Request in to Form QF 10, Design Change

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 14
Control of Design Changes	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 4
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

Request Log.

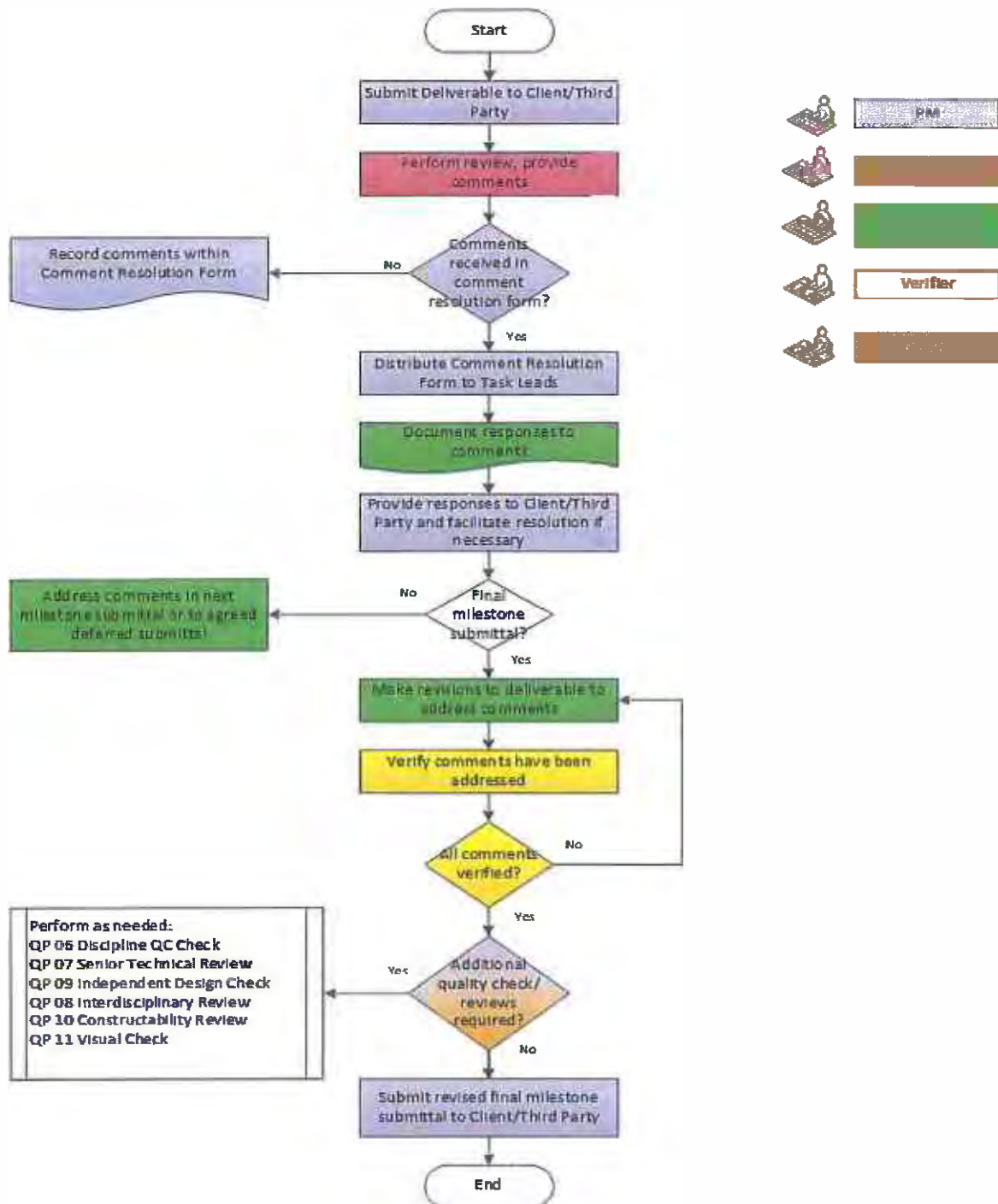
- 5.3 The PM, in concert with the Task Lead and the Engineer of Record (EOR), shall evaluate the requested change and approve or obtain approval in accordance with contract requirements. Changes impacting form, fit or function of the intended design shall be evaluated and approved by the EOR.
- 5.4 The PM, or designee, shall distribute the approved Design Change Request to the appropriate Task Lead or EOR to be addressed.
- 5.5 The Task Lead or EOR shall evaluate the approved change and determine the impact to other design documents or disciplines and notify the PM and other appropriate Task Leads.
- 5.6 The Task Lead(s) or EOR shall make appropriate revisions to design documents to address the requested design change.
- 5.7 The PM and DQAM shall determine the quality checks and reviews to be performed on the revised deliverable based upon the Client Deliverable Quality Matrix. If the decision is made, based upon the content of the change, for limited checks/reviews, concurrence of the PEX and/or DBCE shall be obtained.
- 5.8 The Task Lead shall submit the revised design deliverables for the required quality checks and reviews in accordance with the DQMP.
- 5.9 The DQAM shall perform QA Review on the revised design deliverables ensuring that all required quality checks and reviews have been completed and comments resolved and verified, in accordance with Procedure QP 12, QA Review and when contractually required, shall prepare a Certificate of Compliance, Form QF 07 indicating that the deliverable has been processed in accordance with the DQMP and that required quality checks and reviews have been performed.
- 5.10 The PM, or designee shall update Form QF 10, Design Change Request Log and shall provide revised design documents to the client in accordance with contractual requirements.
- 5.11 The PM shall maintain a copy of the approved Form QF 09, Design Change Request and Form QF 10, Design Change Request Log in accordance with Procedure QP 03, Control of Project Quality Records.

6.0 QUALITY RECORDS

- 6.1 Form QF 09, Design Change Request
- 6.2 Form QF 10, Design Change Request Log

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 14
Control of Design Changes	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 4
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

7.0 FLOWCHART



HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 14
Control of Design Changes	Revision Number: 0	Revision Date: 6/19/23	Page 4 of 4
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 19
Bluebeam Client/Owner/Third-Party Comment and Resolution	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 11
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities, and process for conducting Client/Owner/Third-Party Review of project deliverables using Bluebeam Revu and Studio Sessions. Client/Owner/Third-Party Review shall be governed by Procedure QP 13, Client/Owner/Third-Party Review and Comment.

2.0 SCOPE

This procedure shall apply to Client/Owner/Third-Party Review of project deliverables conducted in accordance with Procedure QP 13, Client/Owner/Third-Party Review and Comment when using Bluebeam to accomplish the review.

3.0 REFERENCES

3.1 QP 03, Control of Project Quality Records

3.2 QP 13, Client/Owner/Third-Party Review and Comment

3.3 Bluebeam Job Aids – Note, Additional job aids may exist beyond those specifically referenced in this procedure and are available in the [Bluebeam Resources Library](#).

4.0 ROLES and RESPONSIBILITIES

4.1 Project Manager (PM) or Designee – The PM or Designee shall be responsible for:

- 4.1.1 Determining in concert with the DQAM to utilize Bluebeam for Client, Owner, or Third-Party Review.
- 4.1.2 Working with the client to determine if Client/Owner/Third Party Internal Acceptance Team will be utilized.
- 4.1.3 Notifying the Bluebeam SME to facilitate project setup in Bluebeam and the provision of Bluebeam training.
- 4.1.4 Identifying those Reviewers who will be participating in the Bluebeam Studio Session.
- 4.1.5 Communicating in concert with the DQAM the use of Bluebeam to perform and capture records of Client/Owner/Third-Party Review.
- 4.1.6 Creating, configuring, and publishing the original deliverable in pdf file format to the Bluebeam Studio Session and for inviting the Reviewers to attend the Bluebeam Studio Session.
- 4.1.7 Managing the Bluebeam Studio Session throughout the review.
- 4.1.8 Publishing the revised deliverables to the Bluebeam Studio Session to the Reviewers for verification.
- 4.1.9 Entering from QF 04, Comment Resolution Form, all "**5.4 Defer Comment**" comments from **previous** reviews so they can be addressed or noted as resolved.
- 4.1.10 Finishing the Bluebeam Studio Session, creating the markup summary reports.
- 4.1.11 Creating the QF 04, Comment Resolution Form listing of any comments "**5.4 Defer Comment**" resulting from the **current** Bluebeam Studio session.
- 4.1.12 Maintaining records of Client/Owner/Third-Party Review.

4.2 Design Quality Assurance Manager (DQAM) – The DQAM shall be responsible for:

- 4.2.1 Working with the PM or Designee to communicate the use of Bluebeam to perform and capture records of Client-Owner-Third Party Review.
- 4.2.2 Coordinating with the Bluebeam SME to ensure training is provided to Designers and Reviewers.

4.3 Client/Owner/Third-Party Reviewers (Reviewer)- The Reviewers shall be responsible for:

- 4.3.1 Attending the Bluebeam Studio Session to perform the review electronically.
- 4.3.2 Documenting comments resulting from the review within the Bluebeam Studio Session

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 19
Bluebeam Client/Owner/Third-Party Comment and Resolution	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 11
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

- using the "QP19 BB Client/Owner/Third-Party Review" profile.
- 4.3.3 Reviewing and discussing the results with the PM, designee, or Design Response Team, reconciling comments, and agreeing upon revisions to be made.
 - 4.3.4 Attending any coordination meeting to discuss the response to their comments.
 - 4.4 Client/Owner/Third-Party Internal Acceptance Team** - The Client/Owner/Third-Party Internal Acceptance Team (when used as part of this process) shall be responsible for:
 - 4.4.1 Attending the Bluebeam Studio Session to perform the review electronically.
 - 4.4.2 Reviewing comments made by Reviewers and noting approval that the comment requires a response by the Designer or not by setting the Reviewer comment status.
 - 4.4.3 Reviewing and discussing the results with the PM, designee, or Design Response Team, reconciling comments, and agreeing upon revisions to be made.
 - 4.4.4 Attending any coordination meeting to discuss the response to their comments.
 - 4.5 Design Response Team** – The Design Response Team shall be responsible for:
 - 4.5.1 Responding to and resolving comments made by Reviewers, setting the comment status.
 - 4.5.2 Making revised deliverables available to the PM or designee for publishing within the Bluebeam Studio session for verification.
 - 4.6 Designer Verifier** – The Designer Verifier shall be an independent member of the design team (not the Design Response Team), and shall be responsible for:
 - 4.6.1 Attending the Bluebeam Studio Session to perform verification.
 - 4.6.2 Reviewing revised documents and verifying that revisions have been made in accordance with agreed upon resolutions, including verification of comments **"5.4 Defer Comment"** from previous reviews.
 - 4.6.3 Documenting verification using the QP19 BB Client/Owner/Third-Party Review profile, including setting the comment status.
 - 4.7 Reviewer Verifiers** – The Reviewer Verifiers shall be responsible for:
 - 4.7.1 Attending the Bluebeam Studio Session to perform verification.
 - 4.7.2 Reviewing revised documents and verifying that revisions have been made in accordance with agreed upon resolutions, including verification of comments **"5.4 Defer Comment"** from previous reviews.
 - 4.7.3 Reviewing Designer responses of **"2.2 Disagree"**, **"2.3 Clarification Required"**, and **"2.4 Not At This Stage"**, by setting the Verifier status accordingly and inputting replies.
 - 4.7.4 Documenting verification using the QP19 BB Client/Owner/Third-Party Review profile, including setting the comment status.
 - 4.8 Bluebeam Subject Matter Expert (SME)** – The Bluebeam SME shall be responsible for:
 - 4.8.1 Providing training, guidance, and support in the implementation of Bluebeam and Studio Sessions.

5.0 PROCEDURE

5.1 Planning

- 5.1.1 The PM shall determine in concert with the client and DQAM whether to use Bluebeam for Client/Owner/Third-Party Review.
- 5.1.2 The PM shall work with the client to determine if Client/Owner/Third Party Internal Acceptance Team will be used to reconcile comments prior to the Designer's response.
- 5.1.3 Upon determining to use Bluebeam, the PM, or designee, shall notify the Bluebeam SME a minimum of 30 days prior to the need to use the tool for the purposes of project setup within Bluebeam and training of Reviewers and Designers.
- 5.1.4 The PM, or designee, shall identify the Reviewers required to participate in the review process.
- 5.1.5 The DQAM shall coordinate with the Bluebeam SME to ensure Bluebeam Training is provided to all Reviewers. Note: Reviewers shall not be given access to the review session until they have received training.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 19
Bluebeam Client/Owner/Third-Party Comment and Resolution	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 11
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

- 5.1.6 All Studio Session hosts and participants will need to create a Studio Account to access the Studio Session, see [Job Aid, 0.1 Creating a Studio Account](#) for instructions.
- 5.1.7 The PM, DQAM, or designee, shall provide the "QP19 BB Client-Owner-Third-Party Review.bpx" file to the review team to install, see [Job Aid, 0.3 Install QP 19 BB Client-Owner-Third-Party Review](#) for instructions.

5.2 Configuring PDFs for a Studio Session – The PM or designee shall prepare and configure all pdfs hosted in a Studio Session by imbedding and verifying the Managed Statuses for QP19 BB Client-Owner-Third Party Reviewer into the PDF, enabling/disabling the appropriate Managed Status Model, flattening all "Autodesk SHX Text", and incorporate all deferred comments from previous milestones, see [Job Aid 1.0: Preparing and Configuring PDF Review Documents](#) for instructions. Note: This must be done **prior** to adding the pdfs to the Studio Session.

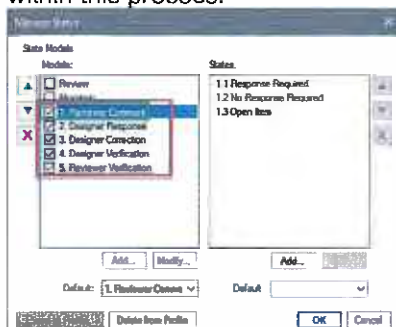
- 5.2.1 The PM or designee shall compile the deliverable package(s) for current review and any **"5.4 Defer Comment"** comments from previous milestones, including a description of how those comments were resolved, so the checker can verify resolution.
- 5.2.2 Assure that the active profile is **"QP19 BB Client-Owner-Third Party Review"**.



- 5.2.3 Open each .pdf document that will be included in the session.
- 5.2.4 Open the Manage Status dialog from the Markups list settings icon on the Status column.

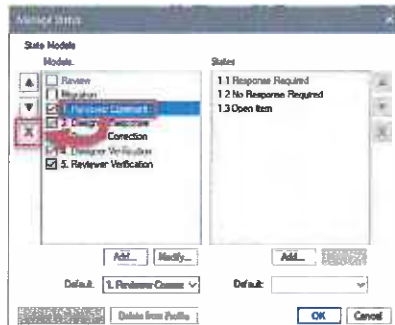


- 5.2.5 Verify the appropriate model and states are present. The **"1. Reviewer Comment"** is an optional model, based upon the use of Client/Owner/Third Party Internal Acceptance within this process.

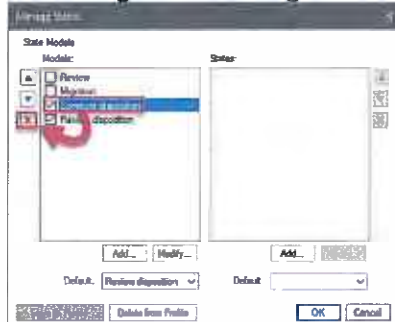


- 5.2.6 When a Client/Owner/Third-Party Internal Acceptance Team is not used, select the **"1. Reviewer Comment"** Model option and select the red **"X"** button to delete.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 19
Bluebeam Client/Owner/Third-Party Comment and Resolution	Revision Number: 0	Revision Date: 6/19/23	Page 4 of 11
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	



- 5.2.7 If the incorrect statuses are present, delete each model state, and then close and reopen the Manage Status dialog and verify the correct statuses are present as shown in section



- 5.2.8 Note that you cannot delete the default models "Review" and "Migration"; however, you do want to verify that these models are not enabled in the Managed Status dialog.
- 5.2.9 Save the document.
- 5.2.10 Repeat steps 5.2.1 through 5.2.9 embed and verify the correct statuses are added to each pdf to be included within the review.
- 5.2.11 When using the electronic CheckPrint Stamp for tracking of review activities, import the "Document Check" stamp provided in the "Stamps" toolset.
- 5.2.12 Verify that there aren't any undesired existing comments in the pdf, or that there aren't any "AutoCAD SHX Text" markups identified in the Markups List. If so, flatten the markups (Ctrl+Shift+M) within the pdf and enable the option to unflatten the markups displayed in the markups list.
- 5.3 Creating a Studio Session – The PM or designee shall publish the configured .pdfs(s) to a Bluebeam Studio Session and invite review participants to attend the session, as outlined in Job Aid, 1.1 Creating a Studio Session.**
- 5.3.1 Start a new Bluebeam Studio Session.
- 5.3.2 Define the Bluebeam Studio Session name. Required naming convention is [HNTB Project Number]-[Project Name]-[Review Milestone]-[Type-Review]-[Review Package]; i.e. "54321-Alpha Bridge Design-30%-CCR-Segment 1 Structures Pac". The maximum Studio Session name length is 60 characters.
- 5.3.3 Add the configured .pdf(s) to the Session.
- 5.3.4 Set Session Permission Options as required.
- 5.3.5 The PM, or designee, shall enter all "5.4 Defer Comment" comments from previous milestones, including a description of how those comments were resolved, so Reviewers can verify resolution.
- 5.3.6 Add the identified required attendees to the Bluebeam Studio Session by automatic invitation. Note: It is easier to add participants by creating a Contact Group in Outlook and then using the Address Book option for the Attendees dialog when creating a Session.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 19
Bluebeam Client/Owner/Third-Party Comment and Resolution	Revision Number: 0	Revision Date: 6/19/23	Page 5 of 11
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

- 5.3.7 An optional message shall be entered with the schedule of the Client-Owner-Third Party Review, in accordance with the Start and End Dates in the Client Deliverable Quality Matrix. In addition to the automated email through Bluebeam. It is recommended that a separate email be sent with additional information about the review requirement also be sent, see **Job Aid, 1.2 Follow Up Email Example**.

5.4 Reviewer Comment–

5.4.1 Creating Comments:

The Reviewers shall join the Bluebeam Studio Session, see **Job Aid, 2.0 Joining into a Studio Session** for instructions, and document their review comments by using the toolset included in the "QP19 BB Client-Owner-Third Party Review" profile. Comments shall be detailed enough to facilitate understanding of the exact nature of the comment. Note: Remember to Group (Select items and Ctrl+G) comments together if they are intended to be tracked in the markups list as one comment, see Grouping Markups in **Job Aid, 2.5 Creating Markups**.

- 5.4.2 If the Reviewer has no comments, they shall place the "**No Comments**" stamp on the first sheet of the document to provide evidence of the review.

5.4.3 Setting the Status, see **Job Aid, 2.1 Setting the Status** for instructions;

Only in instances in which the Client makes use of an Internal Acceptance Team to reconcile comments prior to distribution to the Designer Team, Internal Acceptance Team shall review all comments provided by the Reviewers and set the 1. Reviewer Comment status in the markup list for each comment.

- **1.1 Response Required** – This markup status is intended to identify comments that the acceptance reviewer determines that the design team should respond to.
- **1.2 No Response Required** – This markup status is intended to identify comments that the acceptance reviewer determines that the design team should not respond to.
- **1.3 Open Item** – This markup status is intended to identify comments that require additional discussion within the Reviewer organization before making a determination. Upon discussion and resolution, all "**1.3 Open Item**" must be reassigned a status of "**1.1 Response Required**" or "**1.2 No Response Required**". Markups shall not remain in an "**1.3 Open Item**" state.

- 5.4.4 The PM shall ensure that Reviewers and Internal Acceptance Teams (when used) complete their reviews and approval in accordance with the allotted review timeframe.

5.5 Designer Response –

- 5.5.1 The Task Lead/Designer shall attend the Bluebeam Studio Session and review all the Reviewers' comments. In the case when an Internal Acceptance Team is used, the Task Lead/Designer shall only review those comments with a status of "**1.1 Response Required**". To aid in identifying those comments, it is recommended to use the filter feature to filter the Status column in the markups list by "**1.1 Response Required**", See **Job Aid, 2.2 Filtering the Markups List** for instructions.

5.5.2 Setting the Status, see **Job Aid, 2.1 Setting the Status** for instructions;

The Task Lead/Designer shall set the 2. Designer Response status for all comments.

- **2.1 Agree** - This markup status is intended to identify comments for which the design team agrees with the Reviewer comment and will revise the deliverable to address the comment. The Design Team shall use the Reply feature, when necessary to document additional detail that may be needed to address the comment.
- **2.2 Disagree** - This markup status is intended to identify comments for which the design team disagrees with the Reviewer's comment and therefore will take no further action. The Design Team shall use the Reply feature for all "**2.2. Disagree**" status comments to clarify the disagreement and communicate why the comment will not be addressed and send an Alert to the Reviewer.
- **2.3 Clarification Required** – This markups status is intended to identify comments that need more information provided by the Reviewer to fully understand the

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 19
Bluebeam Client/Owner/Third-Party Comment and Resolution	Revision Number: 0	Revision Date: 6/19/23	Page 6 of 11
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

comment. The Design Team shall use the Reply feature to describe the clarification needed and send an Alert to the Reviewer.

- **2.4 Not At This Stage** - This markup status is intended to identify comments that may or may not require revision to resolve, but which will be addressed in a subsequent milestone/phase review. The Design Team shall use the Reply feature to document the rationale for deferral and the milestone to which it is to be deferred and send an Alert to the Reviewer.

5.5.3 Adding a Reply, see **Job Aid, 2.3 Adding a Reply to a Markup** for instructions; The Designer shall add a Reply to all markups with a status of **"2.2 Disagree"**, **"2.4 Not at This Stage"**, and **"2.3 Clarification Required"** and may also add a Reply to markups with a status of **"2.1 Agree"** when additional information is to be provided to the Updater.

5.5.4 Sending a Markup Alert, see **Job Aid, 2.4 Creating a Markup Alert** for instructions; The Designer may send a Markup Alert to bring attention to a markup as needed. Additional follow up communications may be required to provide details on the alert.

5.5.5 The Designer shall also review all markups with a status of **"3.2 Clarification Required"**, which indicates that the Updater needs additional information to resolve the markup. The Designer shall respond using the Reply feature to provide clarifying information to the Updater on how to resolve the markup and update the 2. Designer Response status.

- Filter the Status column by **"3.2 Clarification Required"**.
- Review the Reply from the Updater.
- Add a Reply to clarify how to resolve the markup and set the status back to **"2.1 Agree"** to move the markup back into the Updater's court. Replies should be sufficiently detailed to facilitate effective resolution.
- Send a Markup Alert to the Design Updater.

5.5.6 The Designer shall also review the markups with a status of **"5.2 Rejected as Noted"**, which indicates that the Reviewer Verifier rejected the response provided and requires a different response to resolve the comment. The Designer shall respond to the Reviewer Verifier using the Reply feature and setting the status accordingly. Replies should be sufficiently detailed to inform the Verifier how/why the rejection will be resolved.

- Filter the Status column by **"5.2 Rejected as Noted"**.
- Review the reply from the Reviewer Verifier.
- Add a Reply and set the 2. Designer Response status accordingly.
- Send a Markup Alert to the Reviewer Verifier.

5.6 Designer Update –

5.6.1 The Design Updater shall join into the Studio Session, review **ALL** markups with a **"2.1 Agree"** or **"4.2 Revise as Noted"** status, and resolve them in the native file according to the Designer's direction. When necessary, the Design Updater can request additional information from the Designer by setting the status to **"3.2 Clarification Required"** and shall use the Reply feature to document additional direction requested.

5.6.2 Filtering the Markups List, see **Job Aid, 2.2 Filtering the Markups List** for instructions.; Filter the Status column by **"2.1 Agree"** and **"4.2 Revise as Noted"** in the Markups List to identify all markups that are to be updated.

5.6.3 Setting the Status, see **Job Aid, 2.1 Setting the Status** for instruction; The Design Updater shall set the 3. Designer Update status to all markups with a **"2.1 Agree"** and **"4.2 Revise as Noted"** status in the markups list after the revision has been completed on the original deliverable in its native format. When the 3. Designer Update status is set, it will serve as the indicator to the Design Verifier that the markup is ready to be verified when the updated document is provided.

- **3.1 Updated** - This markup status is intended to identify markups for which revisions to the original document have been completed in accordance with the Designer's response.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 19
Bluebeam Client/Owner/Third-Party Comment and Resolution	Revision Number: 0	Revision Date: 6/19/23	Page 7 of 11
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

- **3.2 Clarification Required** – This markup status is intended to identify markups for which additional information is required from the Designer to revise the original document. The Designer shall use the Reply feature to provide the additional information requested and set the status to **"2.1 Agree"** to put the markup back in the Design Updater's court. When the additional information is provided by the Designer, the Design Updater shall make the updates as noted in the Reply and set the status to **"3.1 Updated"**. A Markup Alert can be sent to the Designer to expedite the review process.
- 5.6.4 Adding a Reply, see **Job Aid, 2.3 Adding a Reply to a Markup** for instructions; The Design Updater shall add a reply to a markup that they set the status to **"3.2 Clarification Required"** to notify the Designer that additional information is needed to resolve the markup.
- 5.6.5 Sending a Markup Alert, see **Job Aid, 2.4 Creating a Markup Alert** for instructions; The Design Updater may send an Alert to either the Designer or Verifier to expedite the review process.
- 5.6.6 The Design Updater shall also resolve any markups where the Design Verifier sets the status to **"4.2 Revise as Noted"**, indicating the markup was not resolved in accordance with the Designer's direction.
 - Filter the Status column by **"4.2 Revise as Noted"**.
 - Review the Reply from the Design Verifier and make revisions as noted in the native file.
 - If input from the Designer is required set the Status to **"3.2 Clarifications Required"** and add a Reply describing the additional information needed to resolve the markup.
 - When the revision is completed, set the Status to **"3.1 Updated"**.
- 5.6.7 The Design Updater shall provide an updated pdf(s) to the Session host to be published into the Studio Session for verification by the Design Verifier.
- 5.7 Designer Verification –**

The Design Verifier shall join the Bluebeam Studio Session to verify and document that markups have been resolved within the revised pdfs published to the Studio Session. To aid in this task, use the Filter function in the Markups List, the Split Screen, and the View Synchronization features to view and navigate the original and revised document simultaneously, see **Job Aid 2.5 Split Screen and Synchronize View** for instructions.
- 5.7.1 Filtering the Markups List, see **Job Aid, 2.2 Filtering the Markups List** for instructions; Filter the Status column by **"3.1 Updated"** in the Markups List to identify all markups that the Reviewer originated that were updated and ready for verification.
- 5.7.2 Setting the Status, see **Job Aid, 2.1 Setting the Status** for instruction; The Design Verifier shall set the 4. Designer Verification as noted below to the markups to verify.
 - **4.1 Verified** – This markup status is intended to identify markups that have been resolved acceptably when compared to the revised document.
 - **4.2 Revise as Noted** – This markup status is intended to identify those markups wherein the update has not been made in accordance with the Designer's direction. Reply to the markup with clarifying information on how to resolve the markup. A Markup Alert shall be sent to the Updater to expedite the review process.
- 5.7.3 Adding a Reply, see **Job Aid, 2.3 Adding a Reply to a Markup** for instructions; The Design Verifier shall add a Reply to all markups in which they set the stats to **"4.2 Revise as Noted"** to provide the rationale and further direction to the Updater.
- 5.7.4 Sending a Markup Alert, see **Job Aid, 2.4 Creating a Markup Alert** for instructions; The Design Verifier shall send an Alert to the Updater when the Status is set to **"4.2 Revise as Noted"** and to bring attention to a markup and expedite the review process. Additional follow up communications may be required to provide details on the alert.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 19
Bluebeam Client/Owner/Third-Party Comment and Resolution	Revision Number: 0	Revision Date: 6/19/23	Page 8 of 11
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

5.8 Reviewer Verification –

The Reviewers shall join the Bluebeam Studio Session, and verify and document that markups they originated, or have been designated to verify, have been resolved, unchanged, or deferred as agreed upon within the revised document. To aid in this task, use the Filter function in the Markups List to filter the Author column by YOUR name, and use the Split Screen and View Synchronization features to view and navigate the original and revised document simultaneously, see **Job Aid 2.5 Split Screen and Synchronize View** for instructions.

5.8.1 Filtering the Markups List, see **Job Aid, 2.2 Filtering the Markups List** for instructions; Filter the Status column by **"4.1 Verified"** AND the Author column by the **Reviewer's name** in the Markups List to identify all markups that the Reviewer originated that were updated, and ready for verification.

5.8.2 Setting the Status, see **Job Aid, 2.1 Setting the Status** for instruction; The Reviewers shall set the 5. Reviewer Verification status of each their markups(s) based on the Designer's response provided compared to the revised document.

- **5.1 Accepted and Verified** – This markup status is intended to identify comments for which the Reviewer accepts the design team's response to the original comment and that the revisions resolve the original intent of the comment.
- **5.2 Rejected as Noted** – This markup status is intended to identify those markups wherein the Reviewer rejects the Designer's response status of **"2.2 Disagree"** or **"2.3 Not At This Stage"**, or the Designer Verification status of **"4.1 Verified"** in instances in which the Designer's resolution does not meet the original intent of the comment. Reply to the markup with the rationale for rejection of the Designer's response. A Markup Alert shall be sent to the Designer to expedite the review process.
- **5.3 Clarification Provided** – This markup is used to indicate additional information has been provided in response to the **"2.3 Clarification Required"** status selected by the Designer. The Task Lead/Designer shall review the additional information and set the 2. Designer Response status accordingly. Should additional clarification still be required, a comment resolution meeting with the Reviewer shall be convened with the resulting decision being processed in accordance with this procedure.
- **5.4 Defer Comment** – This markup status is intended to identify comments for which the Reviewer agrees with the Design Team's rationale and milestone to which the comment will be deferred for this comment with a status of **"2.4 Not At This Stage"**.

5.8.3 Adding a Reply, see **Job Aid, 2.3 Adding a Reply to a Markup** for instructions; The Reviewer Verifier shall add a Reply to all markups in which they set the stats to **"5.2 Rejected as Noted"** and **"5.3 Clarification Provided"** to provide the rationale and further direction to the Designer.

5.8.4 Sending a Markup Alert, see **Job Aid, 2.4 Creating a Markup Alert** for instructions; The Reviewer Verifier shall send an Alert to the Designer when the Status is set to **"5.2 Rejected as Noted"** and **"5.3 Clarification Provided"** to bring attention to a markup and expedite the review process. Additional follow up communications may be required to provide details on the alert.

5.8.5 The Reviewer Verifier shall also review the markups with a Designer Response status of **"2.2 Disagree"**, which indicates that the Designer does not agree with the markup. The Reviewer Verifier shall respond using the Reply feature, change the status, and may send a Markup Alert to the Designer.

- Filter Author column by YOUR name and Status Column by **"2.2 Disagree"**.
- Review the Reply from the Designer.
- If the Reviewer Verifier doesn't concur with the Designer's status, they shall use the Reply feature to note disagreement with the **"2.2 Disagree"** and set the status

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 19
Bluebeam Client/Owner/Third-Party Comment and Resolution	Revision Number: 0	Revision Date: 6/19/23	Page 9 of 11
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

accordingly to **"5.2 Rejected as Noted"** to move the markup back into the Designer's court. Replies should be sufficiently detailed to facilitate effective resolution. Send a Markup Alert to the Designer.

- If the Reviewer Verifier concurs with the Design's status, they shall set the status accordingly to **"5.1 Accepted and Verified"** to confirm the markup will not be addressed.

5.8.6 The Reviewer Verifier shall also review the markups with a Designer status of **"2.3 Not At This Stage"**, which indicates that the Designer may agree with the markup but prefers to address in a future milestone. The Reviewer Verifier shall respond using the Reply feature, change the status, and may send a Markup Alert to the Designer.

- Filter Author column by YOUR name and Status Column by **"2.3 Not At This Stage"**.
- Review the Reply from the Designer.
- If the Reviewer Verifier doesn't concur that the markup should be deferred, they shall use the Reply feature to note disagreement with the **"2.3 Not At This Stage"** and set the status accordingly to **"5.2 Rejected as Noted"** to move the markup back into the Designer's court. Replies should be sufficiently detailed to facilitate effective resolution.
- Send a Markup Alert to the Designer.
- If the Reviewer Verifier agrees that the markup should be deferred, they shall set the status accordingly to **"5.4 Defer Comment"** to confirm delaying resolution until the identified milestone.

5.9 **Finishing a Studio Session:** After all the markups have been verified as agreed upon, the PM, or designee, shall Finish the Bluebeam Studio Session to download the session document, see **Job Aid 3.0 Finishing a Studio Session**.

5.10 **Generating Markups Summaries:**

The session host shall create QC Markup Summary reports for each review pdf and if needed complete the Form QF 04, Comment Resolution Form for all markups that have not been resolved during the current review milestone, see **Job Aid 3.1 Generating Markup Summaries** for instructions.

5.10.1 QP19 QC Markup Summary

The QC Markup Summary report shall be created for and appended to each review document. The combined QC Review Document and the appended QC Markup Summary comprise the QC Record Files for the project.

5.10.2 QP19 Deferred Comment Summary

If the Reviewer Verification status was set to **"5.4 Defer Comment"** the Designer shall generate a report from Bluebeam showing those comments and transfer them to Form QF 04, Comment Resolution Form in accordance with Procedure QP 03, Control of Project Quality Records for inclusion in the subsequent review. If the review is the final review no comments shall be left in a status of **"5.4 Defer Comment"**.

5.11 **Storing a Record Document** –The Designer, shall maintain a copy of this summary report along with copies of all electronic CheckPrints in accordance with Procedure QP 03, Control of Project Quality Records.

6.0 **QUALITY RECORDS**

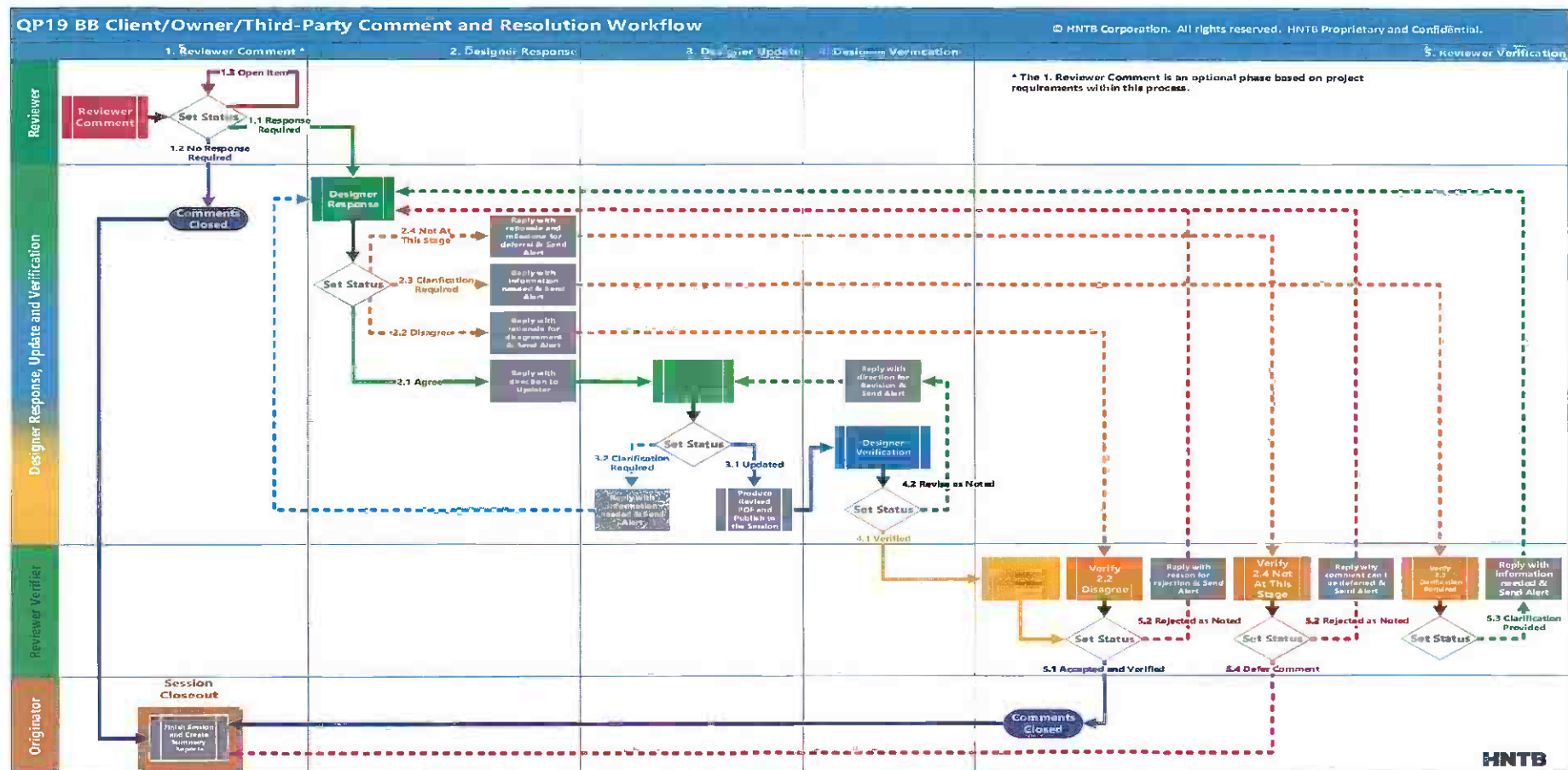
6.1 CheckPrints (electronic)

6.2 Client/Owner/Third-Party Review Summary Log (Bluebeam)

6.3 Form QF 04, Comment Resolution Form (exported from Bluebeam for 5.4 Defer Comments)

HNTB	Prepared by: Kelly Lumen	Approved by: Lily Acuña	Document number: QP 19
Bluebeam Client/Owner/Third-Party Comment and Resolution	Revision Number: 0	Revision Date: 6/19/23	Page 10 of 11
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

7.0 FLOWCHART



HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 19
Bluebeam Client/Owner/Third-Party Comment and Resolution	Revision Number: 0	Revision Date: 6/19/23	Page 11 of 11
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 20
Bluebeam QMS Review	Revision Number: 0	Revision Date: 6/19/23	Page 1 of 10
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

1.0 PURPOSE

The purpose of this procedure is to define the roles, responsibilities and processes required for performing digital checks and reviews of project deliverables using Bluebeam Revu and Studio Sessions. The check/review process shall be governed by the over-arching QMS procedures, QP 06, Discipline QC Check; QP 07, Senior Technical Review; QP 08, Interdisciplinary Review; and QP 10, Constructability Review.

2.0 SCOPE

This procedure shall apply to quality checks and reviews conducted in accordance with QMS procedures QP 06, Discipline QC Check; QP 07, Senior Technical Review; QP 08, Interdisciplinary Review; and QP 10, Constructability Review, when using Bluebeam to accomplish this check/review.

It must be noted that all markups, statuses, and replies entered into Bluebeam as dictated by this procedure shall be sufficiently detailed to support complete and accurate actions by the responsible parties. All markups, statuses and replies constitute part of the quality records for the project and should be treated professionally. It should also be noted that use of the Bluebeam markup, status and reply system is not intended to replace verbal conversations to understand issues quickly and thoroughly.

3.0 REFERENCES

- 3.1 Procedure QP 03, Control of Project Quality Records
- 3.2 Procedure QP 06, Discipline QC Check
- 3.3 Procedure QP 07, Senior Technical Review
- 3.4 Procedure QP 08, Interdisciplinary Review
- 3.5 Procedure QP 10, Constructability Review
- 3.6 Bluebeam Job Aids – Note, Additional job aids may exist beyond those specifically referenced in this procedure and are available in the Bluebeam Resources Library.

4.0 ROLES and RESPONSIBILITIES

4.1 Project Manager (PM) – The PM shall be responsible for:

- 4.1.1 Determining in concert with the DQAM to utilize Bluebeam for quality checks/reviews for project deliverables.
- 4.1.2 Identifying those individuals who will be participating in the quality check/review process and determining if Bluebeam training is necessary for session hosts and/or check/review participants.
- 4.1.3 Communicating to the project team, in concert with the DQAM, the use of Bluebeam to perform and capture records of quality checks/reviews.
- 4.1.4 Resolving escalated conflicts between Task Leads and Reviewers and identifying solutions.

4.2 Design Quality Assurance Manager (DQAM) – The DQAM shall be responsible for:

- 4.2.1 Working with the PM to communicate the use of Bluebeam to perform and capture records of quality checks/reviews using Bluebeam and Studio Sessions.
- 4.2.2 Coordinating with the Bluebeam SME to provide Bluebeam Reviewer and/or Session Host training if needed.
- 4.2.3 Determining in concert with the PM and/or Originator the individuals who will be involved in the Bluebeam quality review process and communicating their roles to identified individuals.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 20
Bluebeam QMS Review	Revision Number: 0	Revision Date: 6/19/23	Page 2 of 10
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

4.3 Originator – The Originator shall be a qualified individual with sufficient, relevant experience in the area of what is to be produced, and shall be responsible for:

- 4.3.1 Configuring all pdfs for review or verification.
- 4.3.2 Creating and hosting the Bluebeam Studio Session by publishing the original review document(s) to a Bluebeam Studio Session and invite attendees.
- 4.3.3 Publishing all deferred markups “**4.4 Defer Comment**” comments from QF 04, Comment Resolution Form from **previous** milestones into the Studio Session.
- 4.3.4 Managing the Bluebeam Studio Session throughout the review.
- 4.3.5 Publishing the revised deliverables to the Bluebeam Studio Session for verification.
- 4.3.6 Finishing the Bluebeam Studio Session when the review is complete.
- 4.3.7 Creating and appending the QC Markup Summary report.
- 4.3.8 Populating the QF 04, Comment Resolution Form with Deferred Comments from the Studio Session.
- 4.3.9 Storing and maintaining the quality records of checks/reviews in the project's quality record repository.

4.4 Checker – The Checker shall be a qualified individual with sufficient, relevant experience in the area of what is to be checked, and in some cases, may possess specific subject matter expertise. The Checker shall be independent of the Originator of the deliverable being checked, but should have familiarity with the client, project requirements and the approved design criteria. The Checker shall be responsible for:

- 4.4.1 Attending the Bluebeam Studio Session to perform the review.
- 4.4.2 Documenting review comments within the Bluebeam Studio Session and setting the status.
- 4.4.3 Verifying and documenting the resolution of “**4.4 Defer Comment**” comments from previous milestones.
- 4.4.4 Attending Resolution Meeting(s) when necessary.
- 4.4.5 Replying to markups within the Bluebeam Studio Session.
- 4.4.6 Sending Alerts within the Bluebeam Studio Session.

4.5 Backchecker – The Backchecker (typically the Originator) shall be responsible for:

- 4.5.1 Attending the Bluebeam Studio Session to backcheck ALL review markups and setting the status.
- 4.5.2 Coordinating with the Checker to conduct Resolution Meeting(s) when needed.
- 4.5.3 Replying to markups within the Bluebeam Studio Session.
- 4.5.4 Sending Alerts within the Bluebeam Studio Session.

4.6 Updater – The Updater (may be the Originator or a CADD technician) shall be responsible for:

- 4.6.1 Attending the Bluebeam Studio Session and review all markups.
- 4.6.2 Requesting clarification from the Backchecker when needed.
- 4.6.3 Making revisions to deliverables in accordance with markups.
- 4.6.4 Setting the status within the Bluebeam Studio Session.
- 4.6.5 Providing an updated .pdf copy of the deliverable to the Originator for inclusion into the Bluebeam Studio Session for purposes of verification.
- 4.6.6 Sending Alerts within the Bluebeam Studio Session.

4.7 Verifier – The Verifier (must be the Checker or another qualified independent party, when the Checker is unavailable, i.e., not the Originator, Backchecker or Updater) shall be responsible for:

- 4.7.1 Attending the Bluebeam Studio Session to verify markups which they originated or are designated to verify and setting the status.
- 4.7.2 Replying to markups in the Bluebeam Studio Session.
- 4.7.3 Sending Alerts within the Bluebeam Studio Session.

4.8 Bluebeam Subject Matter Expert (SME) – The Bluebeam SME shall be responsible for:

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 20
Bluebeam QMS Review	Revision Number: 0	Revision Date: 6/19/23	Page 3 of 10
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

- 4.8.1 Coordinating with the DQAM to provide training resources for Bluebeam Training if required.

5.0 PROCEDURE

5.1 Planning

- 5.1.1 The PM, in concert with the DQAM, shall determine if the use Bluebeam Revu and Studio Sessions for the conducting of quality checks/reviews are appropriate and will be required.
- 5.1.2 When the use of Bluebeam Revu and Studio Sessions is required, the DQAM shall notify the Bluebeam SME for the purposes of coordinating any project setup and training of Studio Session hosts and review participants. The DQAM shall continue to coordinate Bluebeam training needs as team members change throughout the lifecycle of the project.
- 5.1.3 All Studio Session hosts and participants will need to create a Studio Account on studio.bluebeam.com to access the Studio Sessions. See [Creating a Bluebeam Studio Account](#) for instructions, see **Job Aid, 0.1 Creating a Studio Account**.
- 5.1.4 The PM, DQAM, or designee, shall provide the "QP20 BB HNTB QMS Review.bpx" to the review team to install, see **Job Aid, 0.2 Install QP 20 BB QMS Review Profile**.
- 5.1.5 The PM, DQAM, or designee, shall identify, document and communicate the quality check/review hosts and the review participants and their roles (Checker, Backchecker, Updater, Verifier) within the review.
- 5.1.6 Making a DMS connection to ProjectWise or SharePoint can be made to seamlessly work with documents on those systems, see **Job Aid, 1.3 Configuring SharePoint and ProjectWise DMS Connection**.

5.2 Preparing and Configuring PDF Review Documents

- 5.2.1 The Originator shall configure each pdf for review by embedding the profile's managed statuses into the pdf prior to adding the pdf(s) to the Studio Session as outlined in **Job Aid, 1.0 Preparing and Configuring PDF Review Documents**.

5.3 Creating a Studio Session

- 5.3.1 The Originator shall create and host the Bluebeam Studio Session, publishing the configured original deliverable pdf(s) into the Bluebeam Studio session and inviting attendees to attend the Bluebeam Studio Session as outlined in **Job Aid, 1.1 Creating a Studio Session**. Required naming convention is **[HNTB 5- digit Project Number]-[Project Name]-[Review Milestone]-[Type-Review]-[Review Package]**; i.e. "54321-Alpha Bridge Design-30%-DQC-Segment 1 Structures". The maximum character length for a Session name is 56. In addition to the automated email invitation sent from Studio, a follow up email to the session participants can be sent by the session host to provide details on the review expectations, and to reiterate individuals' roles (i.e. Checker, Backchecker, Updater and Verifier) and responsibilities in the process. An example of a follow up email can be found at **Job Aid, 1.2 Follow Up Email Example**.
- 5.3.2 The Originator shall Publish all "**4.4 Defer Comment**" comments from the QF 04, Comment Resolution Form from **previous** milestones into the current Studio Session, so they can be addressed or noted as resolved during the current session.
- 5.3.3 The Studio Session host shall manage the Bluebeam Studio Session throughout the review process:
- When a file is inadvertently added to a session without the managed statuses embedded or has the incorrect managed statuses added, the files must be removed from the session, correctly configured, and added back into the Studio Session, see **Job Aid, 1.4 Fixing a Session Document to Add or Change Managed Statuses**.
 - Monitoring to assure the 4-phase review process is progressing in accordance with

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 20
Bluebeam QMS Review	Revision Number: 0	Revision Date: 6/19/23	Page 4 of 10
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

this procedure. See **Job Aid, 2.2 Filtering the Markups List** for instructions.

- Providing mentorship and support to session participants as needed.
- Inviting additional Attendees as needed.
- Managing Access and Permissions.
- Adding revised PDFs for verification.
- Reactivating a finished Session when needed, see **Job Aid, 3.2 Reactivating a Studio Session** for instructions.
- Reassigning ownership of a session to another when needed, see **Job Aid, 3.3 Reassigning Ownership of a Studio Session** for instructions.
- Recovering deleted review documents when needed, see **Job Aid, 3.4 Recovering a Deleted Document** for instructions.

5.4 Checking

Once the checker has been informed that the review session is active, the Checker shall join the Bluebeam Studio Session, see **Job Aid, 2.0 Joining into a Studio Session** for instructions, to perform the quality checks/reviews, in accordance with the appropriate QMS procedures QP 06, Discipline QC Check; QP 07, Senior Technical Review; QP 08, Interdisciplinary Review; and QP 10, Constructability Review.

5.4.1 Creating Markups:

The Checkers/Reviewers should document review comments by using the QC Checker toolset included in the "**QP20 BB HNTB QMS Review**" profile to create markups. When the Checker chooses to use a markup tool other than those provided in the profile toolset, they must set the color to red. When conducting QP 06, Discipline QC Check, the Checker may use the "DQC" toolset to mark correct items in yellow. For details on using the markup tools, see **Job Aid, 2.6 Creating Markups**.

Comments shall be detailed enough to facilitate understanding by the Backchecker for response and resolution. Note: Group (Select items and Ctrl+G) comments together if they are intended to be tracked in the markups list as one comment.

If the Checker has no comments, the Checker shall enter a comment that reads "**No Comments**" on the first page of the document to provide evidence of completion of the review. A No Comment: stamp is provided in the Stamps toolset for this purpose. No Status is required to be set for the No Comment markup.

5.4.2 Setting the Status: See, **Job Aid, 2.1 Setting the Status** for instructions.

The Checker must set the status to "**1.2 Preferential/ For Information**" when this is the intended status. All markups without a "**1.2 Preferential/ For Information**" status, will be assumed as "**1.1 Requires Attention**" and must be managed in accordance with this procedure. The Checker may set the status of markups to "**1.1 Requires Attention**" when this is the intended status to serve as a notification to the Backchecker that the markup is ready for backcheck.

- **1.1 Requires Attention** – This markup status is intended to identify markups considered as deficiencies in the deliverable that may require revisions to resolve.
- **1.2 Preferential/ For Information** – This markup status is intended to identify markups that do not require revision but may provide better clarity in the deliverable, or as additional information for the Backchecker to consider.

5.4.3 When conducting the check/review, a toolset is available and may be used to mark correct items in yellow. No Status is required to be set for items highlighted as correct. To verify the status has been set as intended, the Checker may filter the markups list Author column by their name and the Status column by "blank". This will display any markup originated by the Checker that doesn't have a status set. See **Job Aid, 2.2 Filtering the Markups List** for instructions. Bulk markup's status can be set at the same time from the filtered list, see Checker – Bulk Status Setting section in **Job Aid, 2.1 Setting the Status**. If no status is set, it is assumed the markup requires attention.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 20
Bluebeam QMS Review	Revision Number: 0	Revision Date: 6/19/23	Page 5 of 10
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

5.5 Backchecking

The Backchecker shall join the Bluebeam Studio Session, see **Job Aid, 2.0 Joining into a Studio Session** for instructions, and review and respond to **ALL** the Checker's markups.

5.5.1 The Backchecker shall set the 2. Backchecker status for all markups in the markups list, add a Reply or Markup Alert as indicated below.

5.5.2 Setting the Status: See, **Job Aid, 2.1 Setting the Status** for instructions.

When the Backchecking status is set it will serve as the indicator to the Updater that the agreed markup is ready to be updated. Until the 2. Backchecker status is set, the markup is considered pending by the Updater, and no action shall be taken until the Backcheck status is set.

- **2.1 Agree** - This markup status is intended to identify markups for which the Backchecker agrees that the comment made by the Checker should be resolved as noted. Use the Reply feature when necessary to document additional detail that may be required to resolve the markup by the Updater.
- **2.2 Disagree** - This markup status is intended to identify markups in which the Backchecker does not agree with the comment made by the Checker, and therefore no revision should be made. Use the Reply feature to document the rationale for disagreement.
- **2.3 Not At This Stage** - This markup status is intended to identify markups that will be addressed in a subsequent milestone/phase review. These markups will be captured and included in subsequent reviews. Use the Reply feature to document the rationale for deferral and the milestone to which it is to be deferred.
- **2.4 No Action Required** - This markup status is only to be used for a markup with a status of "**1.2 Preferential/ For Information**" that does not require revision. No further status change is required, and the comment is considered closed and verified.

5.5.3 Adding a Reply: See **Job Aid, 2.3 Adding a Reply to a Markup** for instructions. The Backchecker shall add a Reply to **ALL** markups with a status of "**2.2 Disagree**" and "**2.3 Not at This Stage**" and may also add a Reply to markups with a status of "**2.1 Agree**" when additional information is to be provided to the Updater.

5.5.4 Sending a Markup Alert: See **Job Aid, 2.4 Creating a Markup Alert** for instructions. The Backchecker may send an Alert to bring attention to a markup as needed. Additional follow up communications may be required to provide details on the alert.

5.5.5 The Backchecker shall also review all markups with a status of "**3.2 Clarification Required**", which indicates that the Updater needs additional information to resolve the markup. The Backchecker shall respond using the Reply feature to provide clarifying information to the Updater on how to resolve the markup and update the 2. Backchecker status.

- Filter the Status column by "**3.2 Clarification Required**". See **Job Aid, 2.2 Filtering the Markups List** for instructions.
- Review the Reply from the Updater.
- Add a Reply to clarify how to resolve the markup and set the status back to "**2.1 Agree**" to move the markup back into the Updater's court. Replies should be sufficiently detailed to facilitate effective resolution.
- Send a Markup Alert to the Updater.

5.5.6 The Backchecker shall also review the markups with a status of "**4.2 Rejected as Noted**", which indicates that the Verifier rejected the status and reply from the Backchecker and requires a different response to resolve the comment. The Backchecker shall respond to the Verifier using the Reply feature and setting the status accordingly. Replies should be sufficiently detailed to inform Verifier how/why the rejection will be resolved.

- Filter the Status column by "**4.2 Rejected as Noted**". See **Job Aid, 2.2 Filtering the Markups List** for instructions.

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 20
Bluebeam QMS Review	Revision Number: 0	Revision Date: 6/19/23	Page 6 of 10
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

- Review the reply from the Verifier.
- Add a Reply and set the 2. Backchecker status accordingly.
- Send a Markup Alert to the Checker/Verifier.

5.5.7 If disputes cannot be resolved between the Backchecker and the Checker/Verifier, the issue shall be escalated to the PM/DM for resolution and upon resolution, the comment and status shall be updated to reflect discussion, directions and decisions.

5.6 Updating

The Updater shall Join into the Studio Session, see **Job Aid, 2.0 Joining into a Studio Session** for instructions, review **ALL** markups with a "2.1 Agree" status and resolve them in the native file, according to the Backchecker's direction. When necessary, the Updater can request additional information from the Backchecker by setting the status to "3.2 Clarification Required" and shall use the Reply feature to document additional direction requested. The Updater shall resolve any markups with a status of "4.3 Revise as Noted" set by the Verifier to identify markups that weren't resolved in accordance with the Backchecker's direction in the revision.

5.6.1 Filtering the Markups List: See **Job Aid, 2.2 Filtering the Markups List** for instructions. Filter the Status column by "2.1 Agree" in the Markups List to identify all markups that are to be corrected.

5.6.2 Setting the Status: See **Job Aid, 2.1 Setting the Status** for instructions.

The Updater shall set the 3. Updater status to all markups with a "2.1 Agree" status in the markups list after the revision has been completed on the original deliverable in its native format. When the 3. Updater status is set, it will serve as the indicator to the Verifier that the markup is ready to be verified when the updated document is provided. Until the 3. Updater status is set, the markup is considered pending by the Verifier.

- **3.1 Updated** - This markup status is intended to identify markups for which revisions to the original document have been made according to the agreed upon disposition and replies from the Backchecker.
- **3.2 Clarification Required** – This markup status is intended to identify markups for which additional information is required from the Backchecker to revise the original document. The Backchecker shall use the Reply feature to provide the additional information requested and set the status to "2.1 Agree" to put the markup back in the Updater's court. When the additional information is provided by the Backchecker, the Updater shall make the corrections as noted in the Reply and set the status to "3.1 Updated". A Markup Alert can be sent to the Backchecker to expedite the review process.

5.6.3 Adding a Reply: See **Job Aid, 2.3 Adding a Reply to a Markup** for instructions. The Updater shall add a reply to a markup that they set the status to "3.2 Clarification Required" to notify the Backchecker that additional information is needed to resolve the markup.

5.6.4 Sending a Markup Alert: See **Job Aid, 2.4 Creating a Markup Alert** for instructions. The Updater may send an Alert to either the Backchecker or Verifier to expedite the review process.

5.6.5 The Updater shall also resolve any markups where the Verifier sets the status to "4.3 Revise as Noted".

- Filter the Status column by "4.3 Revise as Noted". See **Job Aid, 2.2 Filtering the Markups List** for instructions.
- Review the Reply from the Verifier and make revisions as noted in the native file.
- If input from the Backchecker is required set the Status to "3.2 Clarifications Required" and add a Reply describing the additional information needed to resolve the markup.
- When the revision is completed, set the Status to "3.1 Updated".

5.6.6 The Updater shall provide an updated pdf to the session host to be published into the

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 20
Bluebeam QMS Review	Revision Number: 0	Revision Date: 6/19/23	Page 7 of 10
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

Studio Session for verification by the Verifier.

5.7 Verification

The Verifier shall join the Bluebeam Studio Session, see **Job Aid, 2.0 Joining into a Studio Session** for instructions, and verify and document that markups they originated, or have been designated to verify, have been resolved, unchanged, or deferred as agreed upon within the revised document. To aid in this task, use the Filter function in the Markups List to filter the Author column by YOUR name, and use the Split Screen and View Synchronization features to view and navigate the original and revised document easily. For instructions on using the Split Screen and Synchronizing View features, see **Job Aid, 2.5 Split Screen and Synchronizing Views**.

5.7.1 **Filtering the Markups List:** See **Job Aid, 2.2 Filtering the Markups List** for instructions.

Filter the Status column by **"3.1 Updated"** AND the Author column by the **Checker's name** in the Markups List to identify all markups that the Checker originated that were corrected, and ready for verification.

5.7.2 **Setting the Status:** See, **Job Aid, 2.1 Setting the Status** for instructions. The Verifier shall set the 4. Verifier status and Reply as noted below to ONLY the markups they originated or were designated to verify.

- **4.1 Accepted and Verified** – This markup status is intended to identify markups that have been resolved acceptably when compared to the revised document and no further action is required.
- **4.2 Revise as Noted** – This markup status is intended to identify those markups wherein the update has not been made in accordance with the Backchecker's direction. Reply to the markup with clarifying information on how to resolve the markup. A Markup Alert shall be sent to the Updater to expedite the review process.
- **4.3 Rejected as Noted** – This markup status is intended to identify those markups wherein the Verifier rejects the Backchecker's status of **"2.2 Disagree"** or **"2.3 Not At This Stage"**, or the Updater's status of **"3.1 Updated"** in instances in which the Backchecker's resolution of a **"2.1 Agree"** status does not meet the original intent of the comment. Reply to the markup with the rationale for rejection of the Backchecker's status. A Markup Alert shall be sent to the Backchecker to expedite the review process.
- **4.4 Defer Comment** – This markup status is intended to identify those markups wherein the Backchecker's status is set to **"2.3 Not At This Stage"** and the Checker agrees that the comment can be deferred until the designated milestone.

5.7.3 **Adding a Reply:** See **Job Aid, 2.3 Adding a Reply to a Markup** for instructions. The Verifier shall add a Reply to all markups in which they set the stats to **"4.2 Revise as Noted"** and **"4.3 Rejected as Noted"** to provide the rationale and further direction to the Updater or Backchecker.

5.7.4 **Sending a Markup Alert:** See **Job Aid, 2.4 Creating a Markup Alert** for instructions. The Verifier shall send an Alert to the Updater when the Status is set to **"4.2 Revise as Noted"** and to the Backchecker when the Status is set to **"4.3 Rejected as Noted"** to bring attention to a markup and expedite the review process. Additional follow up communications may be required to provide details on the alert.

5.7.5 The Verifier shall also review the markups with a Backchecker status of **"2.2 Disagree"**, which indicates that the Backchecker does not agree with the markup. The Checker shall respond using the Reply feature, change the status, and may send a Markup Alert to the Backchecker.

- Filter Author column by YOUR name and Status Column by **"2.2 Disagree"**. See **Job Aid, 2.2 Filtering the Markups List** for instructions.
- Review the Reply from the Backchecker.
- If the Verifier doesn't concur with the Backchecker's status, they shall use the Reply feature to note disagreement with the **"2.2 Disagree"** and set the status accordingly

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 20
Bluebeam QMS Review	Revision Number: 0	Revision Date: 6/19/23	Page 8 of 10
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

to **"4.3 Rejected as Noted"** to move the markup back into the Backchecker's court. Replies should be sufficiently detailed to facilitate effective resolution. Send a Markup Alert to the Backchecker.

- If the Verifier concurs with the Backchecker's status, they shall set the status accordingly to **"4.1 Accepted and Verified"** to confirm the markup will not be addressed.

5.7.6 The Verifier shall also review the markups with a Backchecker status of **"2.3 Not At This Stage"**, which indicates that the Backchecker may agree with the markup but prefers to address in a future milestone. The Verifier shall respond using the Reply feature, change the status, and may send a Markup Alert to the Backchecker.

- Filter Author column by YOUR name and Status Column by **"2.3 Not At This Stage"**. See **Job Aid, 2.2 Filtering the Markups List** for instructions.
- Review the Reply from the Backchecker.
- If the Verifier doesn't concur that the markup should be deferred, they shall use the Reply feature to note disagreement with the **"2.3 Not At This Stage"** and set the status accordingly to **"4.3 Rejected as Noted"** to move the markup back into the Backchecker's court. Replies should be sufficiently detailed to facilitate effective resolution. Send a Markup Alert to the Backchecker.
- If the Verifier agrees that the markup should be deferred, they shall set the status accordingly to **"4.4 Defer Comment"** to confirm delaying resolution until the identified milestone.

5.8 Finishing the Studio Session: See **Job Aid, 3.0 Finishing a Studio Session** for instructions. After all the markups have been verified as agreed upon, the Originator, or designated host, shall "Finish" the Bluebeam Studio Session to download the session documents.

5.9 Generating Markups Summaries: See **Job Aid, 3.1 Generating Markup Summaries** for instructions.

The session host shall create QC Markup Summary reports for each review pdf and if needed complete the Form QF 04, Comment Resolution Form for all markups that have not been resolved during the current review milestone.

5.9.1 QC Markup Summary

The QC Markup Summary report shall be created for and appended to each review document. The combined QC Review Document and the appended QC Markup Summary comprise the QC Record Files for the project.

5.9.2 Deferred Comment Summary

All markups that have a final status when the session is finished of **"4.4 Defer Comment"** shall be documented within the Form QF 04, Comment Resolution Form. A CSV Markups Summary report can be created to assist with completing the Form QF 04, Comment Resolution Form.

5.10 Storing QC Record Files

The Originator, or designee, shall file copies of all Markups and Summary Reports within the project quality record repository in accordance with Procedure QP 03, Control of Project Quality Records.

6.0 QUALITY RECORDS

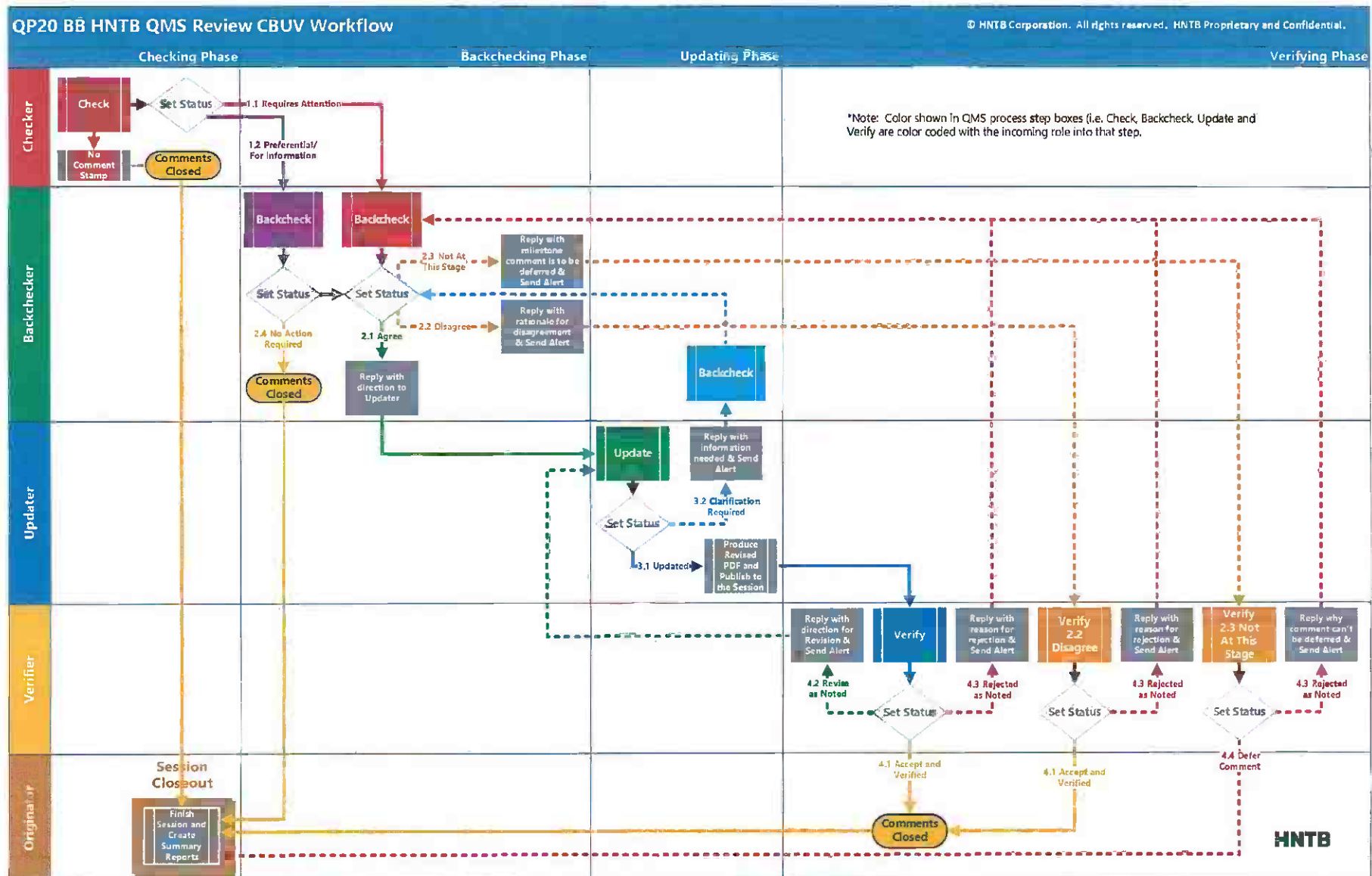
6.1 QC Review Document with Markups

6.2 QC Markup Summary

6.3 Deferred Comment Summary

6.4 Form QF 04, Comment Resolution Form (Exported from Bluebeam for comments 4.4 Defer Comment)

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuna	Document number: QP 20
Bluebeam QMS Review	Revision Number: 0	Revision Date: 6/19/23	Page 9 of 10
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	



HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QP 20
Bluebeam QMS Review	Revision Number: 0	Revision Date: 6/19/23	Page 10 of 10
Project Name: ATMP Roadway Improvement Project		Project No.: 71473	

8.0 REVISION HISTORY

Revision No.:	Revised By:	Revision Date:	Description of Change
0	Kelly Lumen		Original Release

HNTB	Prepared by: Kelly Lumen	Approved by: Lilly Acuña	Document number: QF 02
Client Deliverable Quality Matrix	Revision Number: 0	Revision Date: 8/19/2023	Page 1 of 1
Project Name: A-MP Roadway Improvement Project		Job No: 71473	

Enter client deliverables from Work Plan/Scope. For each deliverable, enter the planned or target start and end dates for each review (review periods to include comment resolution and verification). Enter "N/A" in Start Date column for checks/reviews which are not required for a specific deliverable. Reviews to the left of QA Review must be completed and comments resolved prior to QA Review completion. **Note: Discipline QC Check, Visual Check, and QA Review are mandatory for all deliverables, Interdisciplinary Review is also mandatory for all deliverables involving more than one discipline.** Add additional rows as necessary. Please see the Tab entitled "Descriptions of Reviews" for guidance on selecting reviews.

Deliverable Description	% Complete Milestone Phase	Due Date to Client	Field Review		QP-04 DTS Review		QP-06 Discipline QC Check				QP-07 Senior Technical Review				QP-09 Independent Design Check				QP-08 Interdisciplinary Review				QP-10 Constructability Review				QP-11 Visual Check				QP-12 QA Review				QP-13 Client / Owner Review				QP-13 Third Party Review			
							*Conformance Check *Accuracy Check *Scope Check *Style Check																																			
			Y/N	Start Date	End Date	Y/N	Start Date	End Date	Y/N	Start Date	End Date	Y/N	Start Date	End Date	Y/N	Start Date	End Date	Y/N	Start Date	End Date	Y/N	Start Date	End Date	Y/N	Start Date	End Date	Y/N	Start Date	End Date	Y/N	Start Date	End Date	Y/N	Start Date	End Date	Y/N	Start Date	End Date				
																		</																								

Procedure	Name	Description
-	Field Review	This review is generally performed during design development to assure or confirm assumptions about the actual field condition. May apply in instances where heavy development may cause rapid changes in field conditions.
QP 04	Over the Shoulder Review	This review is generally applied in Design Build or other alternative delivery methods when it is necessary to conduct in between milestone reviews with the client or contractor to review the design approach and document comments or changes for incorporation in the milestone submittal.
QP 06	Discipline QC Check	Mandatory check, applies to all deliverables. Performed within the discipline by a qualified independent party to assure conformance with criteria or requirements, accuracy of mathematical calculations, scope or level of detail associated with milestone submittal and compliance to CADD or other style requirements.
QP 07	Senior Technical Review	This review is generally performed by a high level SME in order to review the approach or concept of a particularly risky or critical deliverable. This review is not applied to customary, routine deliverables
QP 09	Independent Design Check	This check is performed when contractually required, or otherwise deemed necessary, typically on complex structural designs. Involves an independent set of calculations to confirm the design.
QP 08	Interdisciplinary Review	This review is performed by the Task Leads of the various disciplines, and is used to assure alignment and consistency between disciplines and to identify and mitigate interdisciplinary conflicts. Mandatory review when deliverables constitute more than one discipline.
QP 10	Constructability Review	This review is performed by HNTB when part of our scope (typically in design-bid-build) scenarios to assure that the project can be constructed as designed. In alternative delivery projects, this review is performed by the contractor and the HNTB responsibility is limited to resolution of comments.
QP 11	Visual Check	This check is mandatory on all deliverables and is typically performed by the Task Lead of the deliverable. This check is performed on the deliverable in the format in which it will be provided to the client to assure the deliverable is complete, in order, and has been converted properly.
QP 12	QA Review	This review is mandatory on all deliverables and is performed by the PQM to assure that all other required checks/reviews have been performed, comments have been resolved and that records exist providing evidence.
QP 13	Client/Owner Review	This review, conducted by our client/owner is expected to occur on all deliverables upon submittal. Time frames for this review can vary, but consideration shall be given to the impact of delays on our schedule.
QP 13	Third Party Review	This review is only required when our client has agreements with third parties that require them to review deliverables as well as our client, examples are: FHWA, FTA, etc....

HNTB		Document number: QF 03
Attendance Roster		
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

Course Date: _____ PDH/CEUs: _____

Course Activity: _____

Location: _____ Duration: _____

Presented by: _____

Attendees Name (Print)	Email Address	Attendees Signature



Form QF 04 Comment Resolution Form

Revision: 1

Revision Date: 09/04/2019

Project Name	ATMP Roadway Improvement Project		Date	Initial
HNTB Contract #	71473			
Deliverable Type/Name	0	0	Submitted for Review	1/0/00 0
Submittal/Phase	0		Review Complete	
Origination/Task Lead	0		Responses Provided	
Organization/Firm	0		Responses Resolved	
Reviewer Name			Changes Made	
Organization/Discipline			All Changes Verified	
Review Type	0			

ID	Sheet Name/ Sheet X of XX	Sheet No.	Comment Made by Initials	Comment (Limit to One Item Per Row)	Agree	Response	Resolved	Fixed/ Initials	Verified/ Initials
1									
2									
3									
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7									
8									
9									
10									
11									
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HNTB		Document number: QF 05
QC Check/Review Record		
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

Project Name:	ATMP Roadway Improvement Project
Job No.:	71473
Client:	LAWA
Deliverable Title:	
Milestone/Phase:	

Type of Check or Review

- Discipline QC Check ☐
- Senior Technical Review ☐
- Interdisciplinary Review ☐
- Constructability Review ☐
- Visual Check ☐

	Name:	Initials	Date Received	Date Complete
Originated By:			N/A	
Checked By:				
BackChecked By:				
Updated By:				
Verified By:				

Comments:

HNTB	Document number: QF 06
Calculation Cover Sheet	Page 1 of __

Project: ATMP Roadway Improvement Project	Job No: 71473	Design Criteria Document:
Client: LAWA	Discipline:	Calculation No:

Name or Description of Calculation:

Note: Unique QF 06 to be created for each revision of a calculation.

Calc. Rev. No.	Description of Change (i.e., Original Issue or description of changes since last revision)	Confirmation required with other deliverables (Y/N)	List Deliverables for which confirmation is required (NA if none) Add additional rows as necessary	Confirmation Verified by Originator of Calc for each deliverable listed (Y/N)

Calculation Objective:

Calculation Methodology/List of Assumptions:

References/Inputs:

Attachments: (List each attachment following the subject calculation)

Conclusions:

Document Check:	Name	Signature	Date
Originator:			
Checker:			
Backchecker:			
Updater:			
Verifier:			

HNTB		Document number: QF 07
Certificate of Compliance		
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

Project Title: ATMP Roadway Improvement Project

Job No.: 71473

Client:  LAWA

Submittal/Deliverable Title:

Milestone/Phase:

I certify that the deliverable(s) comprising this submittal and listed below have been checked and reviewed in accordance with the Project Quality Plan, except for any variances noted below:

Having performed a Senior Technical Review, I certify to the best of my knowledge, that the deliverable(s) noted above and/or listed below fulfills the intended use, meets the basis of design and/or approved design criteria, and that the design has been developed in accordance with applicable standards of professional practice, except for any variances noted below:

Having performed an Independent Design Check, I certify to the best of my knowledge, the adequacy and integrity of the critical project components associated with the deliverable(s) noted above and/or listed below, except for any variances noted below:

List of Project Deliverables included in submittal:

Variances: (Note N/A if none)

Signature: _____

Name: _____

Title: _____

Date: _____

QF 07, Revision 1, 06/04/18

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HNTB		Document number: QF 07A
Subconsultant Certificate of DQMP Compliance		
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

Project Title: ATMP Roadway Improvement Project

Job No.: 71473

Client: LAWA

Submittal/Deliverable Title:

Milestone/Phase:

I certify that the deliverable(s) comprising this submittal and listed below have been checked and reviewed in accordance with the ATMP Roadway Improvement Design Quality management Plan, except for any variances noted below:

List of Project Deliverables included in submittal:

Variances: (Note N/A if none)

Signature: _____

Name: _____

Subconsultant Firm: _____

Date: _____

HNTB		Document number: QF 08
QA Review Record		
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

Project Title:	ATMP Roadway Improvement Project
Job No.:	71473
Client:	LAWA
Deliverable Title:	
Milestone/Phase:	

Required Checks and Reviews in accordance with the Client Deliverables Quality Matrix (inclusive of Subconsultant Deliverables)

		Discipline QC Check	Senior Technical Review	Independent Design Check	Interdisciplinary Review	Field Review	Constructability Review	Visual Check
Required		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completed	YES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments Resolved & Verified	YES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	NO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

			Comments Resolved/Verified?	
Comment Resolution Status			Yes	No
Deferred Comments to be addressed in this milestone?			<input type="checkbox"/>	<input type="checkbox"/>
Client Comments from previous milestone to be addressed in this milestone?			<input type="checkbox"/>	<input type="checkbox"/>

Additional Actions (if necessary):

Project Quality Manager (Name) _____ Date: _____

Project Quality Manager (Signature): _____

HNTB		Document number: QF 09
Design Change Request		
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

Project: ATMP Roadway Improvement Project		Project No: 71473	
Requested by:		Date: 6/19/23	DCR #:
Requested by/Anticipated Release Date:			
Proposed Change (location(s), sheets/pages affected):			
Reason for Change:			
<input type="checkbox"/> NDC <input type="checkbox"/> Client Direction <input type="checkbox"/> Design Error <input type="checkbox"/> Improvement		<input type="checkbox"/> FDC <input type="checkbox"/> Fit to Field <input type="checkbox"/> Unforeseen Condition <input type="checkbox"/> NCR <input type="checkbox"/> Improvement	
<input type="checkbox"/> FDC <input type="checkbox"/> Level 1 – No Engineering Analysis Req'd, As Built <input type="checkbox"/> Level 2 – No Engineering Analysis Req'd, Plan Revisions <input type="checkbox"/> Level 3 – Engineering Analysis Req'd, Plan Revisions			
Specifics, including benefits:			
Change Details: Dollars (Amount of Savings/Cost): Deadlines (Amount of Advance/Delay): Documents (Revisions affected or describe completely): Disciplines Impacted:			

HNTB		Document number: QF 09
Design Change Request		
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

Approved by (Project Manager):	_____	Date:	_____
Approved by (EOR):	_____	Date:	_____
Approved by (PQM):	_____	Date:	_____
Approved by (Client):	_____	Date:	_____

HNTB		Document number: QF 09
Design Change Request		
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

HNTB		Document number: QF 10
Design Change Request Log		
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

HNTB		Document number: QF 11
Quality Audit Roster		
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

Quality Audit Scope Documents	Quality Audit Date	Auditor	Opening Meeting	Closing Meeting

Attendees:

Printed Name	Title	Firm	Phone No.	Email Address

Opening Meeting Agenda:	Closing Meeting Agenda:
• Review of Quality Audit Scope and duration	• Review of Quality Audit Scope
• Handling of findings/observations	• Review of commendable efforts
• Approximate date of Closing Meeting	• Review of findings/observations
• Content & expected date of Quality Audit Report	• Expected date of Final Quality Audit Report

HNTB		Document number: QF 12
Quality Audit Checklist		
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

Project Quality Audit

Project Name:	ATMP Roadway Improvement Project	Job Number:	71473	% Complete:	
Project Manager:	Richard Hart	Project Quality Manager:	Kelly Lumen		
Reviewer:		Date of Quality Audit:			

Project Quality Audit	Response	Comments
Project Team Organization:		
1. Has a Project Quality Manager (PQM) been assigned?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Project Quality Plan:		
2. Has a Project Quality Plan Approval Form been completed and show evidence of OQM approval?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
a. Has the Project Quality Plan Approval Form been updated and re-signed if necessary?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
3. Is the project following a Standard PQP or a Custom PQP	<input type="checkbox"/> Standard <input type="checkbox"/> Custom	
a. If Custom PQP, is the Custom PQP in compliance with the HNTB QMS?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
b. If Custom PQP, does it include client/project specific requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
c. If Custom, does it include procedures for all quality check and review processes listed in the Client Deliverable Quality Matrix?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
d. If Custom PQP, was it provided to other supporting HNTB offices?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
e. Are Discipline QC Checks being conducted using the design criteria itself, or are discipline specific criteria checklists being used?	<input type="checkbox"/> Design Criteria <input type="checkbox"/> Discipline Criteria Checklists	
f. If Checklists, have they been included in the PQP?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
4. Has a Client Deliverable Quality Matrix been completed, including the assignment of check and review dates?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
a. For this project, was it necessary to involve MSL/PSL for determination of quality checks/reviews and resources to perform those reviews? If yes, how were they engaged?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

HNTB		Document number: QF 12
Quality Audit Checklist		
Project Name: ATMP Roadway Improvement Project		Project No.: 71473

<p>5. Has the Client Deliverable Quality Matrix been populated with Design Services During Construction deliverables?</p> <p>a. Simple RFI responses require Discipline QC and Visual Check (mandatory), and periodic QA audit</p> <p>b. Complex RFI responses require Discipline QC Check and Visual Check (mandatory), STR and IDR (as required), and QA Review</p> <p>c. Shop Drawing review comments require Discipline QC Check (mandatory)</p> <p>d. Design Changes resulting from NDC or FDC require same checks/reviews as original design</p> <p>e. NCR responses requiring review or analysis relative to Use-As-Is, Repair, or Rework dispositions require Discipline QC Check, Visual Check, and QA Review (mandatory), STR and IDR (as required)</p> <p>f. Record Drawings require Discipline QC Check and Visual Check (mandatory), and periodic QA Audit</p> <p>g. Is the matrix routinely updated or maintained as these deliverables are generated?</p>		
<p>6. Was Client approval of the PQP necessary?</p> <p>a. If so, is there record of that approval?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>	
<p>7. Are subconsultants following the HNTB PQP or a QP of their own?</p> <p>a. If HNTB PQP, was it provided to subs?</p> <p>b. If their own, is it available and is there evidence of PQM review and approval?</p>	<p><input type="checkbox"/> HNTB <input type="checkbox"/> Sub QP</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>	
<p>8. Has the project team been trained on the PQP, including other HNTB offices and subs?</p> <p>a. Do training records exist?</p> <p>b. Has PQP training occurred as projects transition from Pre-Award, Post-Award or into Construction Phase Services?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>	
<p>9. How is Interdisciplinary Coordination accomplished on the project? Any records maintained?</p> <p>10. How are design changes or decisions communicated to the Project Team?</p>		

Quality Audit Checklist

Project Name: ATMP Roadway Improvement Project

Project No.: 71473

11. What method is used for Interdisciplinary Review?

☐ Bluebeam ☐ Hardcopy CheckPrints
☐ Comment Resolution Forms

Project Quality Records:

12. Has a project quality record repository been established and included in the PQP?

☐ Yes ☐ No ☐ N/A

a. Does it include folders/meta data for storing of Project Quality Records in accordance with the Client Deliverable Quality Matrix?

☐ Yes ☐ No ☐ N/A

b. Is a copy of the approved PQP Approval Form posted in that repository?

☐ Yes ☐ No ☐ N/A

c. Is a copy of the Custom PQP (if applicable) posted in that repository?

☐ Yes ☐ No ☐ N/A

d. Are subconsultant QPs (if applicable) posted in that repository?

☐ Yes ☐ No ☐ N/A

e. Does the project team (including other HNTB offices and subs if applicable) have access to that repository?

☐ Yes ☐ No ☐ N/A

f. Have quality record folders/meta data been established for Design Services During Construction deliverables?

a. Or maintained in Design Logs for DB projects (applicable for Simple RFI, Submittals Reviews, NCRs with no engineering analysis, and Record Drawings

PQP Execution:

13. Are quality check and reviews being conducted in accordance with the Client Deliverable Quality Matrix?

☐ Yes ☐ No ☐ N/A

a. Are records available **in the repository** to demonstrate these check and reviews have occurred?

☐ Yes ☐ No ☐ N/A

i. Including subs if they are following the HNTB PQP?

☐ Yes ☐ No ☐ N/A

b. Have quality check and reviews been conducted in accordance with the dates in the Client Deliverable Quality Matrix? i.e. Have check and review time periods been maintained?

☐ Yes ☐ No ☐ N/A

c. Do calculations include Calculation Cover Sheet, and are calculations organized?

☐ Yes ☐ No ☐ N/A

☐ Yes ☐ No ☐ N/A

HNTB		Document number: QF 12
Quality Audit Checklist		
Project Name: ATMP Roadway Improvement Project		Project No.: 71473

d. Do records indicate that all required disciplines participated in Interdisciplinary Review?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
e. Are subconsultant certificates of compliance available to indicate they have followed their own QP if applicable?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
f. Has the PQM performed QA Review and generated a Certificate of Compliance, if required, with the PQP for all deliverables?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
g. Do records indicate that Client/Owner/Third Party review comments been resolved and verified?		
14. Have quality checks and reviews been conducted on Design Services During Construction deliverables as required by the Client Deliverable Quality Matrix?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
a. RFI responses	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
b. Construction Submittal review comments	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
c. Design Changes	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
d. NCR responses/analyses	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
e. Record Drawings	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Continual Improvement Feedback:		
15. Were quality issues encountered on the project? In your opinion, what contributed to those issues?		
16. What challenges did you encounter in executing the PQP?		
17. What went well or was a benefit in executing the PQP?		
18. What would you do differently next time with regard to the quality management process that would result in higher quality deliverables or greater efficiency?		
Additional Space for Reviewers Notes:		

HNTB		Document number: QF 13
Quality Audit Report		Page 1 of 2
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

Audit Scope:

Lead Auditor:

Auditor(s):

Participant(s):

Opening Meeting Date:

Closing Meeting Date:

Final Quality Audit Report Date:

Quality Audit Report Distribution:

Executive Summary:

This Quality Audit of the **XX** Project was conducted in accordance with the **XX** Office Quality Audit Schedule. The Lead Reviewer was **XX**. The participant(s) were **XX**. The opening meeting, Quality Audit, and closing meeting were conducted on **XX**.

This Quality Audit resulted in the capturing of commendable efforts, **XX** findings resulting in Corrective Action Requests (CAR), and **XX** observations as further detailed within this report.

CAR Number	Description	Responsible Manager
CARXXX		
CARXXX		

Commendable Efforts (Good Points):

Findings:

Finding #1:

HNTB		Document number: QF 13
Quality Audit Report		Page 2 of 2
Project Name: ATMP Roadway Improvement Project		Project No.: 71473

Responsible Manager:

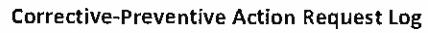
Finding #2:

Responsible Manager:

Observations: The following **XX** observations were made during the Quality Audit. While not being issued as formal corrective action requests, the participant(s) are encouraged to address these observations to achieve continual improvement and to prevent nonconformance in the future:

Observation #1:

Observation #2:



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HNTB		Document number: QF 15
Corrective/Preventive Action Request Form		Page 1 of 1
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

Issue Date:	Response Due Date:	Tracking #:
Originator:		
Classification: <input type="checkbox"/> Corrective Action <input type="checkbox"/> Preventive Action		
Description of Problem or Potential Problem:		
Responsible Manager:		Date of Response:
Root Cause:		
Action Plan sufficient to prevent recurrence:		
Implementation Date:		
Quality Manager Review and Approval (Signature/Date):		
Quality Manager Verification of Implementation/Effectiveness:		
Closed <input type="checkbox"/>	Quality Manager Signature:	Date:

Subconsultant Quality Plan Approval Form

Page 1 of 4

Project Name: ATMP Roadway Improvement Project

Project No.: 71473

Subconsultant Firm:	HNTB Office:
Office Location:	HNTB PM:
Subconsultant Project Manager:	HNTB PQM:
Subconsultant Quality Manager:	<input type="checkbox"/> Subconsultant is a sole proprietor (i.e. single person operation)?
Scope of work (Describe the work to be performed): 	
Key Milestones (List the major deliverables): 	

No.	Item	Specific Criteria / Review Item	Compliance		
			Yes	No	N/A
1.00	Is the Subconsultant a Sole Proprietor (If yes, respond to questions in this Section then proceed directly to Section 7.00, if no proceed to Section 2.00)	Note any Comments/Actions in Section 7.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.01	Does the Quality Plan contain a revision level or date and show approval?	The plan should have a revision level or date to show currency and should show the authority who approved the plan. A revision history showing subsequent changes is a best practice but not required.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.02	Does the Quality Plan include qualifications or certifications of the sole proprietor?	Should include any relevant qualifications or certifications to prove sole proprietor maintains qualifications to perform service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Subconsultant Quality Plan Approval Form

Project Name: ATMP Roadway Improvement Project

Project No.: 71473

No.	Item	Specific Criteria / Review Item	Compliance		
			Yes	No	N/A
		or work product. Should also include process by which qualifications or certifications are kept current.			
1.03	Does the Quality Plan include the process or procedure by which the sole proprietor performs a self-check to ensure deliverable(s) meet requirements?	Quality Plan should include a description of the procedure used by the sole proprietor to perform a self-check and should include a description of the record generated to document this self-check.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.04	Does the Quality Plan describe the process by which inspection, measuring or test equipment is calibrated?	If the use of inspection, measuring or test equipment is required in the provision of such services, the Quality Plan should describe how those items are calibrated, and the generation of calibration records.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.05	Does the Quality Plan describe the generation of quality records?	Quality Plan should indicate that self-check records as well as any relevant records of qualification or certification are maintained and made available to HNTB upon request, or provided with deliverables as required by Subconsultant Agreement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.00	Quali Plan – General	Note any Comments/Actions in Section 7.00			
2.01	Does the Quality Plan contain a revision level or date and show approval?	The plan should have a revision level or date to show currency and should show the authority who approved the plan. A revision history showing subsequent changes is a best practice but not required.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.02	Are project team key personnel listed along with the individual responsible for quality?	The plan should have a list or organization chart of key project personnel along with their titles, role, and responsibilities, including the identification of an individual responsible for quality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.03	Does the Quality Plan include provisions for training their team members on the Quality Plan/processes?	Should also include the requirement to maintain records of training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Subconsultant Quality Plan Approval Form

Project Name: ATMP Roadway Improvement Project

Project No.: 71473

No.	Item	Specific Criteria / Review Item	Compliance		
			Yes	No	N/A
2.04	Does the Quality Plan describe the process by which inspection, measuring or test equipment is calibrated?	If the use of inspection, measuring or test equipment is required in the provision of such services, the Quality Plan should describe how those items are calibrated, and the generation of calibration records.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.00	Quality Plan – Quality Control/Quality Assurance Activities	Note any Comments/Actions in Section 7.00			
3.01	Does the Quality Plan describe the process or procedure by which quality control checks or reviews of deliverables are performed to ensure they meet requirements?				
3.01.01		Quality Control Check (Mandatory)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.01.02		Interdisciplinary Reviews (Required when deliverable involves more than one discipline)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.01.03		Quality Assurance Reviews	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.01.04		Other Required Reviews (as applicable dependent upon complexity of deliverable, i.e. peer review, senior technical review, independent design check, constructability review, field review, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.00	Quality Plan – Control of Quality Records	Note any Comments/Actions in Section 7.00			
4.01	Does the Quality Plan describe quality records that are generated, providing evidence that quality reviews have occurred?	The Quality Plan should describe a listing of records of quality control and quality assurance activities associated with deliverables. The Quality Plan should indicate these records are made available to HNTB upon request, or potentially provided with deliverables in accordance with requirements in the Subconsultant Agreement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.00	Quality Past Project Performance	Note any Comments/Actions in Section 7.00			
5.01	Are there any past quality issues noted associated with this Subconsultant from Office or Division PMs or PQMs that need to be addressed? (i.e. project quality/performance issues, quality audit results, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HNTB		Document number: QF 16
Subconsultant Quality Plan Approval Form		Page 4 of 4
Project Name: ATMP Roadway Improvement Project		Project No.: 71473

No.	Item	Specific Criteria / Review Item	Compliance		
			Yes	No	N/A
6.00	Specific Contract Requirements	Note any Comments/Actions in Section 7.00			
6.01	Have relevant specific contract requirements been reflected in the Subconsultant Quality Plan (i.e. source inspection, quality audits, compliance with FTA QMS Guidelines, etc.) (List any such flow down contractual requirements here, add rows as necessary)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7.00 Comments/Actions (List comments resulting in additional actions necessary in order to achieve Quality Plan approval, add rows as necessary)					
No.	Comment	Action	Responsibility	Due Date	Status

Subconsultant Quality Plan Approval (All action items must be addressed prior to Approval)					
Approval by PQM			Approval Notice Distributed to:		
Name	Signature	Date	PM	Subconsultant	
Retain copy of approval form, e-mail approval notice, and Subconsultant Quality Plan in accordance with QP 03, Control of Quality Records					

HNTB		Document number: QF 17
Subconsultant Quality Plan Coversheet (To Be Completed by Subconsultant)		Page 1 of 3
Project Name: ATMP Roadway Improvement Project	Project No.:71473	

The HNTB Quality Management System (QMS) requires that subconsultants either adopt and follow the HNTB Project Quality Plan (PQP) or follow a quality plan of their own. When subconsultants are directed to follow their own quality plan, but do not have a documented quality plan, this cover sheet is provided to document the subconsultants process to address minimum requirements. Once completed and approved, this becomes the subconsultant's quality plan. This form and any attachments shall be submitted to the HNTB Project Quality Manager for review and approval.

Subconsultant Firm:
Office Address:
Project Name: ATMP Roadway Improvement Project
Subconsultant Project Manager:
Subconsultant Quality Manager:

Subconsultant Scope of work (Describe the work to be performed):
Key Milestones (List the major deliverables & attach project schedule):

See
attached

List or provide an organization chart of key project personnel along with their titles, role and responsibilities, including the identification of an individual responsible for quality.	<input type="checkbox"/>
--	--------------------------

HNTB		Document number: QF 17
Subconsultant Quality Plan Coversheet (To Be Completed by Subconsultant)		Page 2 of 3
Project Name: ATMP Roadway Improvement Project	Project No.:71473	

Describe the process for training your project team on your quality plan and processes and methods of maintaining records of training. Include a description of how these records will be made available to HNTB upon request.	<input type="checkbox"/>
If the use of inspection, measuring or test equipment (e.g. field or laboratory devices/equipment) is required in your services, describe how those items are calibrated, calibration maintained current, and the maintenance of calibration records. Include a description of how these records will be made available to HNTB upon request.	<input type="checkbox"/>
Describe the process or procedure by which quality control checks or reviews of deliverables are performed to ensure they meet requirements? (i.e. calculations, drawings, specifications, reports, studies, recommendations, etc.). Must include a description of the QC checks, interdisciplinary reviews (if applicable), QA reviews, and any other reviews necessary based on the scope and complexity of the deliverable.	<input type="checkbox"/>
Describe the process by which quality records are maintained. Subconsultant understands that records shall be made available upon request or potentially provided with deliverables if required by the Subconsultant Agreement.	<input type="checkbox"/>

Subconsultants shall submit a certificate of compliance with their deliverables, certifying that those deliverables have been checked/reviewed in accordance with this quality plan.

Quality Plan Revisions		
Rev. #	Description	Rev. Date

QF 17, Revision 2, 02/22/2019

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HNTB		Document number: QF 17
Subconsultant Quality Plan Coversheet (To Be Completed by Subconsultant)		Page 3 of 3
Project Name: ATMP Roadway Improvement Project	Project No.:71473	

Subconsultant Quality Plan Approval			
Approval by Subconsultant Project Manager		Approval by Subconsultant Quality Manager	
Signature	Date	Signature	Date
Approval by HNTB Project Quality Manager		Signature	Date

HNTB		QF-18
Quality Audit Plan		Page 1 of 1
Project Name: ATMP Roadway Improvement Project	Project No.: 71473	

Audit Scope:

Lead Auditor:

Auditor(s):

Audit Date:

Milestone/Phase:

Audit Objective:

- The purpose of this audit is to assess compliance with the ATMP Roadway Improvement Project quality plan through interviews and the review of quality records.

Audit Scope Details: Through interview and review of a sampling of quality records, an assessment will be made of compliance specifically with the following PQP procedures for the **XX** submittal(s), as documented within the Client Deliverable Quality Matrix.

- List PQP procedures to be audited

Required Audit Participants:

- PM
- PQM
- Task Leads (for Opening Meeting, Closing Meeting and periodically throughout audit to answer questions/provide evidence)
- Subconsultant Task Leads – May need to be available via phone periodically throughout audit to answer questions/provide evidence)
- For DB Projects, OQM, Office Leader, DB DDO, GD DDO, and ODM invited as optional

Auditor(s) will need access to approved PQP, quality records, client satisfaction results etc.

Audit Schedule:

Date/Time	Activity	Participants

SKANSKA | FLATIRON ATMP Roadway Improvement Project – PROGRESSIVE-DESIGN-BUILD	Page 38 of 38	
PROJECT-WIDE QAQC PLAN	Rev. #	Date Approved
	1	

APPENDIX 3 – RESUMES OF QUALITY PERSONNEL

Anthony Son

Proposed Role: QA/QC Manager

Anthony is a key member of the project management team and is responsible for the implementation of site-specific and customer-approved QA/QC management plans on-site. He brings proven experience developing Quality Programs for both the design and construction phases on alternative delivery



projects in Los Angeles, including working with LAWA at LAX. Anthony brings extensive knowledge gained from coordinating with jurisdictional inspectors at LAX for testing and commissioning and will leverage his expertise to coordinate with each AHJ within the City of Angeles for final acceptance of each element.

Work History/Relevant Experience with Similar Projects

City of LA Los Angeles World Airports | LAWA Roadways, Utilities, and Enabling Projects

Los Angeles, CA | Design-Build | \$334M
Quality Manager | 2021 - Present

Skanska is serving as the design-builder for LAWA's RUE projects at LAX. The RUE projects center on restoring and constructing roadways and utilities infrastructure to enable ongoing and future work within LAWA's Landside Access Modernization Program (LAMP). The enabling projects lay the groundwork for high-profile projects such as the automated people mover (APM), Consolidated Rent-a-Car facility (CONRAC) and Intermodal Transportation Facility-West. The RUE contract consists of 16 distinct tasks that involve roadway extensions, utility work and wayfinding signage to help travelers navigate LAX.

Anthony is the Los Angeles-area Quality Manager providing organizational oversight for the Quality Program. He developed the program-wide Quality Assurance Quality Control Plan, Quality Procedures and controls required to ensure compliance with the contract requirements. Anthony provides quality management independent from the RUE project management team performing the work. **Anthony's scope of work for the RUE will complete by 12/01/2022. After that time, he will be 100% dedicated to the ATMP Landside Improvements Project.**



Years of Experience 22

Length of Tenure with Skanska
3 years

Personnel Worked With on Similar Projects

Cela Gallagher
Teresa Maxwell
Rick Finken
Jill Steiner

Education

California State
Polytechnic
University, Pomona,
CA, 1993

Licenses/Certifications

OSHA 30-Hour
Classification A - General
Engineering Contractor
License, CA #1037496
LADBS Deputy Building
Inspector License
#P025813
Internal Code Council
(ICC) #5296646

References

Joe Demello
LA Metro
323-900-2112
DemelloJ@metro.net

Vince Ybarra
LA Metro
323-900-2168
YbarraV@metro.net

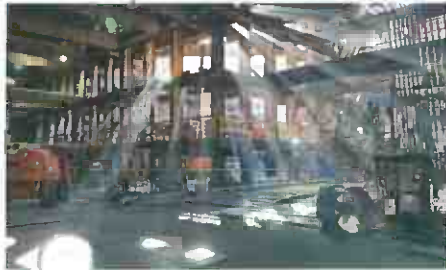


Los Angeles Metro | Westside Subway Extension Phase 1

Los Angeles, CA | Design-Build | \$1.9B
Quality Manager | 2019 - Present

The project uses two slurry pressure balance tunnel boring machines for 3.9 miles of twin-bored tunnels. The three underground stations are approximately 850-1000 feet long. Trackwork includes installation of direct fixation track and two tail tracks at the end of the tunnels for future phases.

Anthony implemented and maintained a quality management system that conformed to the requirements of ANSI/ISO/ASQ Q9001:2008. He reviewed and approved subcontractor and supplier quality programs and document submittals. He performed quality reviews, audits and surveillances of operational activities, and he advised management of deviations from established requirements. Anthony supervised a QC manager, QC engineer and 10 QC inspectors.

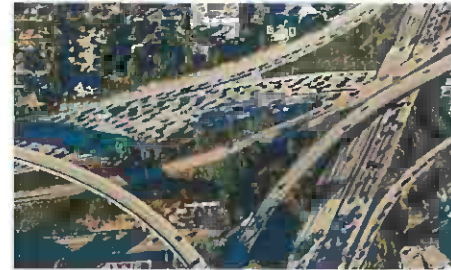


Los Angeles Metro | I-405 Sepulveda Pass Widening Improvements Project

Los Angeles, CA | Design-Build | \$1.6B
Lead Quality Control Inspector | 2011 - 2014

The project consisted of a 10-mile HOV lane between the 1-10 and US-101. The project included the removal and replacement of three bridges, the realignment of 27 on- and off-ramps, widening of 13 existing bridges, and construction of 18 miles of soil nail, tie back, cast-in-place reinforced concrete and MSE retaining walls.

Anthony performed the contractor's QC inspections of Metro, Caltrans and City of LA D/B construction of the following: pre-stressed, post-tensioned, reinforced concrete; structural steel highway bridge structures; jointed plain concrete paving; hot mix asphalt paving and overlay; cast-in-place retaining walls; and utility relocations. He reviewed and verified construction of approved work plans.



Los Angeles Metro | Crenshaw / LAX Transit Project

Los Angeles, CA | Design-Build | \$2.1B
Senior Oversight Inspector | 2014 - 2019

This project consisted of 8.5 miles of light-rail line from Exposition and Crenshaw boulevards to the Green Line south of the Los Angeles International Airport. The project consisted of 8 stations, 2 bored tunnels, 3 underground guideways, 5 light rail bridges, and MSE retaining walls.

Anthony performed project oversight inspection for Metro's construction management team on the construction of bridges, at-grade intersection crossings, roadway paving, falsework, MSE retaining walls, underground cut and cover, shoring, piling, street restoration of curbs, gutters, sidewalks, utility relocation of water, gas, power, fiber optics, storm drainage, sewer lines, station mechanical, electrical, plumbing, escalators, elevators, systems, ductbank, communication, train control, track circuit, traction power, grounding, overhead catenary system, and SWPPP and safety.



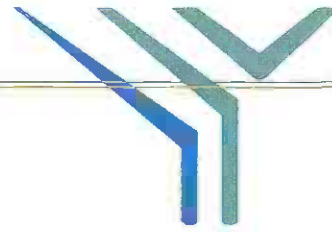
Los Angeles Metro | Exposition Light Rail Transit Project Phase 1

Los Angeles, CA | \$691M
Quality Control Inspector | 2007 - 2011

This \$640 million project contained 8.6 miles of light rail transportation from the Staples Center to Culver City. Project structures included 9 stations, 2 aerial stations, 4 light rail bridges, 1 LA City bridge, Caltrans bridge retrofit, grade separation trench, and MSE and cast in place retaining walls. Civil improvements included storm drain, sewer line, power, gas and water utility relocation, landscaping, irrigation, and concrete and asphalt paving.

Anthony performed contractor's quality control inspection of Caltrans, LA City and Metro light rail prestressed, post-tensioned, reinforced concrete bridge construction, light rail grade crossings, roadway paving, highway paving, rapid set concrete paving, hot mix asphalt and Portland cement concrete paving MSE retaining walls, and at-grade and aerial stations.





Kelly Lumen, PE

Proposed Role: Design Quality Manager

Kelly's experience includes a range of design, construction and management activities, including design-build delivery and quality management of projects in Los Angeles. Her extensive knowledge in all aspects of design allows

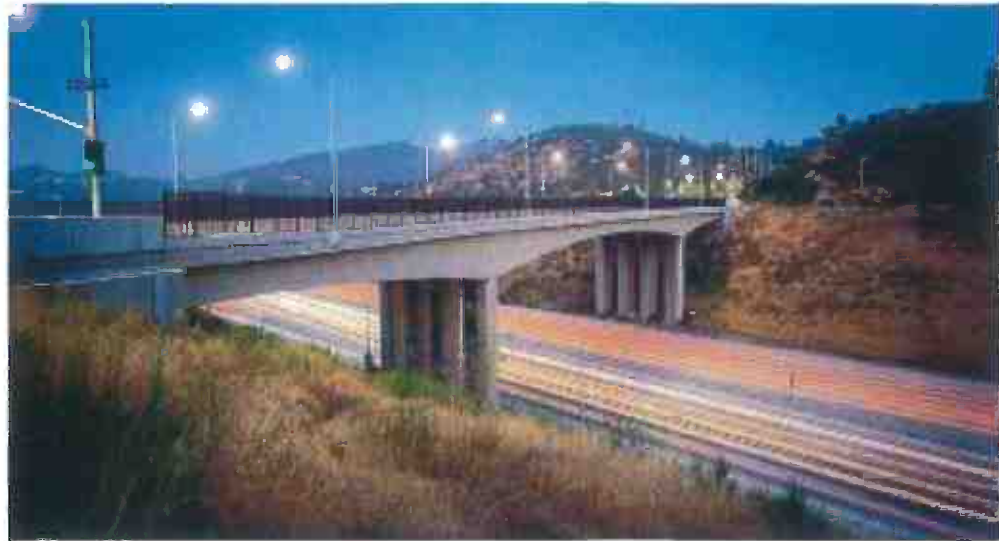


her to be an effective quality manager. She has technical experience in street, storm drain, sewer and water infrastructure design; utility coordination; hydrologic/hydraulic analysis and design; structural design of retaining walls/sound walls; and as construction inspector for concrete reinforced bridges.

Work / Project Experience History

Los Angeles Metro | I-405 Sepulveda Pass Widening
Los Angeles, CA | Design-Build | \$1.6B | Quality Manager | 2011 - 2015

HNTB was the lead designer for this \$1.6B design-build freeway widening project. The project's primary objective was to add a 10-mile HOV lane to the northbound side of I-405 between the I-10 and U.S.101 freeways, completing the last gap of carpool lanes along the entire 72-mile length of I-405. Kelly provided quality assurance management for both design and post design services. Quality management services include reviews for plans, reports and calculations per the project design quality management plan for all disciplines and agencies of the project. Disciplines included roadway and grading; drainage; bridges; walls; transportation management; maintenance of traffic; signing, traffic lighting, and ITS; utilities relocations; planting and irrigation; geotechnical and specifications. Agencies included Caltrans, City of Los Angeles, and County of Los Angeles.



Years of Experience 24

Length of Tenure with HNTB 13

Worked With on Projects

Richard hart
Shahram Vahdat
Kuan Go
Kevin Schlereth

Rick Bottcher
Chris Halpin
John Weldon
Jimmy El-Ayoubie

Education

Marquette University,
Marquette, WI, MS, Civil
Engineering, 1998

Marquette University,
Marquette, WI, BS, Civil
Engineering, 1996

Licenses/Certifications

Professional Engineer:
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Sanya Sobot
Orange County Transportation
Authority
714-560-5965
ssobot@octa.net



Los Angeles Metro | Southbound I-605/Beverly Boulevard Interchange Improvements Project Report and PS&E
Pico Rivera, CA | Design-Bid-Build | \$35M
Project Quality Manager | 2018 - 2022

This project will improve traffic operations on the southbound ramps while minimizing impacts to right-of-way and ensuring compatibility with the final I-605 corridor improvements. As a key subconsultant to Civil Works, a small, woman-owned business, HNTB is supporting development of the Draft Project Report, Project Report, and Plans, Specifications, and Estimates (PS&E) for this interchange improvement project.

Kelly brought her quality experience to support the small firm as they led this Metro project, demonstrating her ability to guide and train firms in implementing effective quality programs. HNTB worked closely with the prime SBE consultant, Metro, Caltrans District 7, and Gateway Cities Council of Governments to deliver an approved PS&E package within two years.



Brightline West | High Speed Rail Project
Rancho Cucamonga, CA to Las Vegas, NV | Design-Build | \$3B
Quality Manager | 2019 - Ongoing

The project requires redesign of the I-15 Freeway corridor to allow the new high speed rail corridor in the median. Efforts include redesign of freeway segments through Barstow and six interchanges in the corridor. Design included preparation of Geometric Approval drawings for seven different locations. The work involved assessment of the corridor-wide Safety Analysis.

As Quality Manager, Kelly ensures deliverables are compliant with the Quality Plan approved by the Owner. The tight schedule required a deliberately short time frame for quality reviews. Kelly worked with the team to shorten the interdisciplinary review by facilitating IDR meetings to achieve a thorough IDR check with all the disciplines in 1 day, saving at least a week of review time with each submittal.



Caltrans District 12 | Program Management for I-405 (South) Asset Management Project
Orange County, CA | Design-Build | \$150M
Quality Technical Writer | 2021 - Ongoing

This design-build project will extend the life expectancy of pavement, improve safety for all modes of travel as well as maintenance crews, enhance traffic operation, manage congestion, and provide the ability to collect, analyze, and use data for efficient systems performance along the I-405 corridor within the project limits. HNTB is serving as the Program Management consultant.

Kelly is the quality technical writer for all items related to quality in procurement and administration of the design-build contract. She coordinated directly with Caltrans personnel to communicate quality expectations of the DB contractor. She developed an approach to assure adequate quality personnel are assigned on DB projects confirming with Caltrans that the ratio meets their expectations on projects.



Transportation Corridor Agencies | General Engineering Consultant Services, Quality Management
Orange, CA | Design-Build | \$4.4B Program Cost
Quality Manager | 2020 - 2022

TCA leveraged the consultant services to meet the agency's project needs by accessing the nationwide toll, technology, and engineering services of HNTB. Task orders included work related to utility locates, third-party agency and Caltrans project coordination, lane closure public notifications, preliminary cost estimates and geometric design for capital improvement projects, encroachment permit applications and document control services.

Kelly served as the JV's Quality Manager for civil design and project task orders for the TCA. She also acts as TCA's design quality auditor, auditing their consultant projects such as the SR-241/SR-91 Express Lanes Connector. This experience helps her manage design quality with the perspective of a project owner.



Larry Pointe

Proposed Role: Construction Quality Manager

With over 17 years experience providing construction quality management and inspection services, Larry specializes in quality oversight for large-scale (over \$1-billion) alternative delivery projects for roadways, bridges, and light rails. He has a verifiable track record of



developing strong collaborative relationships with key local AHJs including BOE, the City of Los Angeles, and LADBS. His extensive experience inspecting complex design-builds brings assurance that project outcomes will rise to highest level of standards.

Work History/Relevant Experience with Similar Projects

Los Angeles World Airport | LAX Automated People Mover

Los Angeles, CA | P3/DBFOM | \$4.89B | Const. Quality Manager | 2020 - Present

A key part of the \$4.89-billion P3/DBFOM project, this fully automated and driverless system, involving the construction of 2.25 miles of elevated dual lane guideway, will connect LAX travelers and employees to new intermodal transfer facilities, the new consolidated rental car facility, and L.A. Metro. Larry has been instrumental in establishing new highly effective and efficient quality management procedures. He led a full revamp of the materials receiving processes to move the team from closing less than 500 to almost 5,000 materials receiving inspection reports. He established a new collaborative relationship with LADBS and other AHJs, involving on-going regular interface, to facilitate the achievement of CFOs and the closure of nearly 800 permits in under one year - up from less than six prior to his arrival. He established a robust and comprehensive system for tracking and reporting NCRs with thorough root-cause analysis as well actions to prevent future issues. As noted by LAWA personnel in status update meetings, Larry's approach to reporting, investigating, and communicating about these issues has resulted in more transparency, effective resolution, and higher quality outcomes for the project. In addition, Larry also tracked and set up meetings to resolve exposures to the public - bringing the total to less than 10. • *Larry Pointe's scope of work for the APM will be completed by January 2, 2023. After that time he will be 100-percent committed to the ATMP Landside Improvements Project.*



Years of Experience 17

Length of Tenure with Current Firm 2 years

Personnel Worked With on Similar Projects

Rick Finken, PE
Erica Eddy
Oscar Teposte
Marc Pacheco
Robert Gongora

Education

ITT-Tech, Sylmar, CA, B.S.,
Project Management

Licenses/Certifications

American Society for
Quality, Member

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John Brewer – City of Los Angeles
Principal Construction Inspector
213-847-2383
johnny.brewer@lacity.org



Los Angeles Metro | Purple Line Ext. 3 - Tunnels Project Los Angeles County, CA | Method | \$430M
Project Quality Manager | 2019 - 2020

The Purple Line Extension Tunnel Project, Section 3, will add 2.56 miles of new rail to Metro's Rail system and connect downtown L.A. to the westside. This project includes the construction of a tail shaft, two boring tunnels, and over 14 cross passages along with two new metro stations.

Larry wrote and successfully obtained owner approval for the project's quality plans. He worked through a backward planning process to identify and make sure the proper systems were in place to allow the team to achieve successful future closeout. He went above and beyond to take document control under the

quality department when submittals fell behind. He established a system to prioritize accuracy, compliance, and proper submittal oversight.



Los Angeles Metro | Metro Crenshaw/LAX Transit Project Los Angeles, CA | Design-Build | \$2.1B
Project Quality Manager | 2014 - 2019

The Crenshaw/LAX Transit Connector is an 8.5-mile light rail line that will run along Crenshaw Blvd. and the Harbor Subdivision right-of-way, from Exposition Blvd. to the Metro Green Line.

Larry established invaluable collaboration with AHJs in order to ensure the project in aligned with stakeholder requirements and could proceed in a compliant and expedient manner. He worked closely with the LABOE, establishing weekly meetings with them, and building a strong enough rapport to bring their head inspector on site for walk-throughs. He successfully persuaded the City of L.A. to adopt his tracking system for NCR process. He established new inspection trainings and a reward program that led to improved quality outcomes across construction teams.



Los Angeles Metro | I-405 Sepulveda Pass Improvements Los Angeles County, CA | Design-Build | \$1.003B
Quality Control Manager | 2012 - 2014

A major collaboration between Caltrans and Los Angeles Metro, this project added a 10-mile HOV lane and improved infrastructure including ramps, bridges and sound walls. It involved removing and replacing three bridges, widening 13 existing underpasses and structures, building 140 ADA ramps, and constructing approximately 18 miles of retaining walls and sound walls.

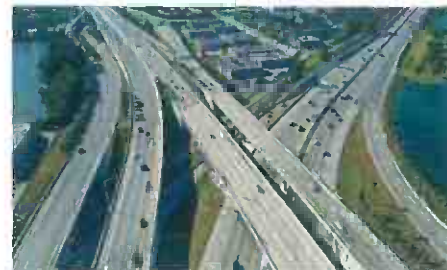
In addition to bridge/structure inspection and MSE investigation, Larry oversaw the resolution of 60 non-compliant ADA ramps that had been previously poured. As a result of the new inspection policies that Larry implemented, along with his robust team training efforts, the non compliance rate dropped from 89-percent to zero non-compliances on almost 150 ramps.



Florida Department of Transportation (FDOT) | SR 200 Duval County, FL | Method | \$35M
Field Quality Manager | 2009 - 2011

This project widened 11 miles of highway, from two to four lanes, and included four bridge replacements, MSE walls, embankment, and asphalt pavement.

As the field quality manager, Larry was responsible for managing and scheduling quality control inspection staff as well as maintaining earthwork and concrete records for FDOT. He was also in charge of performing all inspections for earthwork, drilled shaft placement, and structural steel on drilled shafts, as well as, on bridge decks, caps, columns, and footings. Larry helped avoid costly delays by establishing critical systems that ensure the project was able to pass FDOT's robust QA program requirements which involved randomized testing. He also maintained the FDOT log book in accordance with their regulations.



Appendix 13 – Virtual Design and Construction (VDC) and Building Information Modeling (BIM) Execution Plan (PR-21)



Virtual Design and Construction (VDC) and
Building Information Modeling (BIM)
Execution Plan
(PR-21)

SKANSKA | FLATIRON

Contents

BIM Execution Plan 3

Appendix A – Level of Development (LOD) Matrix 4

Appendix B – Coordination Model Matrix 5

Appendix C – Spatial Conflict Resolution Process 6

Appendix D – BIM Data Verification Checklist 7

BIM Execution Plan

DESIGN DEVELOPMENT
BIM PROJECT
EXECUTION PLAN (BPXP)

PROJECT NO: DA-5609

LAWA AIRFIELD AND TERMINAL
MODERNIZATION PROGRAM
(ATMP)

ROADWAY IMPROVEMENTS

DATE: November 15, 2024

PREPARED BY

Skanska-Flatiron, JV
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1	11/15/2024	SFJV, HNTB		Design Development

Contents

1. Overview and Purpose	4
1.1 Purpose	4
1.2 Progressive Design Build BIM Approach.....	4
1.3 BxP Change Management.....	4
1.3 Data Use, Reuse, Ownership, and Rights of Data	4
1.3.1 Design Team Models.....	4
1.3.2 Construction Team Models.....	5
1.3.3 Document Precedence	5
2.0 Project Information	6
2.1 Project Details.....	6
2.2 BIM Staff Organizational Charts	7
2.2.1 Project BIM Leadership	7
2.2.2 Design BIM Team.....	7
2.2.3 Construction BIM Team	7
2.3 BIM Staff Directory	8
2.4 Roles and Responsibilities	9
2.4.1 Construction BIM Team Key Roles and Responsibilities	9
2.4.2 Design BIM Team Key Roles and Responsibilities	10
2.5 Meetings and Coordination Procedures	12
3.0 BIM/VDC Uses	14
3.1 Model Definitions.....	14
3.3.1 Design Model	14
3.3.2 Construction Model.....	14
3.3.3 As-Built Model	14
3.3.4 Reconciled Record Model (RRM)	14
3.3.5 Facilities Model.....	14
3.3.6 Federated Model (FED).....	14
3.3.7 BIM Model Progression Diagram	15
3.2 Model Use and Responsibility Matrix.....	15
4.0 Model Data Exchange and Collaboration Processes	17
4.1 Design Models	17
4.1.1 Common Data Environment (CDE).....	17
4.1.2 Model Collaboration and Delivery Procedure	18
4.1.3 Coordination with Adjacent Projects	20
4.2 Construction Models	20
4.2.1 Common Data Environment	20
4.2.2 Model Collaboration and Delivery Procedure	20
5.0 LOD and Deliverables	22
5.1 Introduction.....	22
5.2 Definitions.....	22
5.3 Model Progression and LOD Matrix	22
5.4 Examples.....	23
5.4.1 Roadway	24
5.4.2 Utilities.....	25
5.4.3 Structures.....	26
5.4.4 Signs	27

6.0 Modeling Standards, Protocols, & Governing Software 28

6.1 General Model Standards 28

6.1.1 Model Geolocation and Coordinate system 28

6.2.1 Model Data Conventions 28

6.2 Design Models 29

6.2.1 Design Governing Software 29

6.2.2 Design CADD/BIM Model Data Structure 31

6.2.3 Directory Structure 32

6.2.4 File Naming 33

6.2.5 Model-Based Drawing Production 37

6.3 Construction Models 47

7.0 Modeling Scope, Requirements, Quality Control and Assurance 48

7.1 Design Models 48

7.1.2 Accuracy and Tolerances 48

7.1.2 Scope and Requirements 48

7.1.3 BIM Quality Strategy 51

7.1.4 Model Quality Control and Assurance 51

7.2 Construction Models 51

7.2.1 Accuracy and Tolerances 51

7.2.2 Scope and Requirements 51

7.2.3 BIM Quality Strategy 51

7.2.4 Model Quality Control and Assurance 52

Appendices 53

Appendix A – Level of Development (LOD) Matrix 53

Appendix B – Coordination Model Matrix 53

Appendix C – Spatial Conflict Resolution Process 53

Appendix D – BIM Data Verification Checklist 53

1. Overview and Purpose

1.1 Purpose

To promote the effective use of Building Information Modeling (BIM) in the project, the Design Build BIM management team has created this BIM Project Execution Plan (BPxP). This plan is intended to supplement the standard LAWA BPxP Template and provides more detail on how BIM will be used by the Design Build team on the project.

The core objective of our BIM approach is to create a digital representation of the Project and to integrate Virtual Design and Construction (VDC) methodologies. The overall goals for incorporating VDC/BIM into the project include:

- Offering stakeholders a holistic view of the project from design to construction
- Producing detailed illustrations and presentations for LAWA authorities and stakeholders.
- Generating precise design and construction contract drawings.
- Facilitating 3D coordination among disciplines, enabling spatial coordination and clash detection.
- ~~Implementing 4D Construction Sequencing, Phasing, and planning logistics for stakeholders.~~
- ~~Advancing 5D Modeling for cost estimation.~~

1.2 Progressive Design Build BIM Approach

Due to the nature of this progressive design build project, BIM model creation and management will be managed by two distinct BIM teams that work collaboratively to leverage BIM from design through construction:

- The Design BIM team, comprised of HNTB and its subconsultants, is responsible for the creation and management of design BIM models and the production of construction contract drawings
- A Construction BIM team, comprised of the Skanska Flatiron Joint Venture (SFJV), and their sub/trade contractors, is responsible for creation and management of the construction BIM models and the production of shop and fabrication drawings.

Throughout this document, sections have been divided where appropriate to make the distinction between Design and Construction BIM modeling and associated management activities.

1.3 BPxP Change Management

This BPxP is a dynamic document, evolving throughout the project's lifespan. Any desired changes to this document should be proposed in writing to the Construction and Design BIM Managers. Changes that do not affect the project's scope or timeline can be integrated directly. However, changes that could alter the scope or schedule require coordination with project management. Both LAWA and design build team must understand and agree upon these changes before their inclusion in the document.

1.3 Data Use, Reuse, Ownership, and Rights of Data

This document does not supersede any commitments established in the primary contract between LAWA and SFJV.

1.3.1 Design Team Models

The Design Team (DT) will supply BIM Model(s) up to the Level of Development (LOD) and scope defined in this document and the Project LOD matrix. Any use of these BIM models beyond the stipulated scope is at the user's own risk. The DT will not incorporate construction changes derived from construction documentation or the construction process into their BIM Model(s). The BIM Model(s) provided by the DT and associated data are for reference purposes only.

1.3.2 Construction Team Models

The CJV is responsible for updating or recreating the BIM model(s) and design data as outlined in the Project LOD Matrix (Appendix A) provided by the DT team for construction, coordination, scheduling, estimating, phasing and close out of the Work. BIM Model(s) and CAD files for documentation will be given to Trade Contractors and Vendors for reference in submittal preparations. Trade contracts are responsible for converting the provided BIM models into their needed format. Trade models must be returned to the CJV in formats approved by the CJV.

1.3.3 Document Precedence

If there's a conflict between the Construction Documents and the BIM, the Construction Documents prevail. 2D Contract Documents always override BIM Model data.

2.0 Project Information

2.1 Project Details

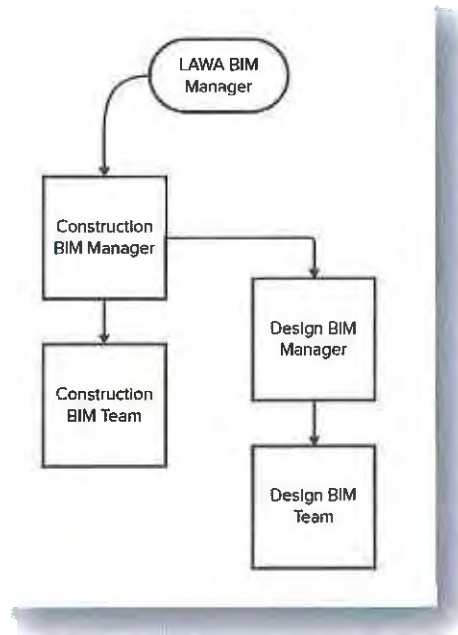
This project focuses on roadway improvements to help reduce airport-related congestion on the local roadway system resulting in back-ups on public streets by redirecting airport traffic from local streets to new dedicated access roadways. A new system of roadways and bridges will be constructed to consolidate traffic away from Sepulveda Boulevard and Century Boulevard, enable construction of future Concourse 0, and provide access to the future Terminal 9.



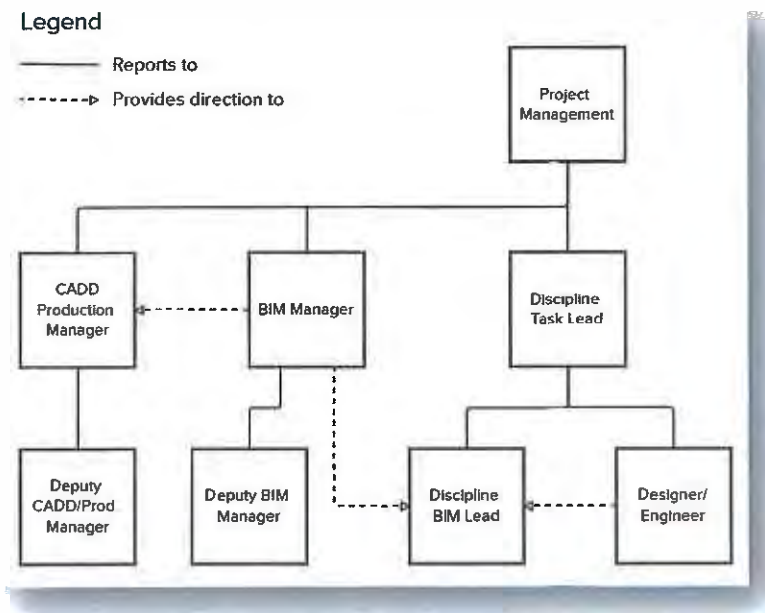
2.2 BIM Staff Organizational Charts

The following organizational charts have been developed to establish a project BIM leadership structure for the design build team as a whole and the distinct design and construction BIM teams.

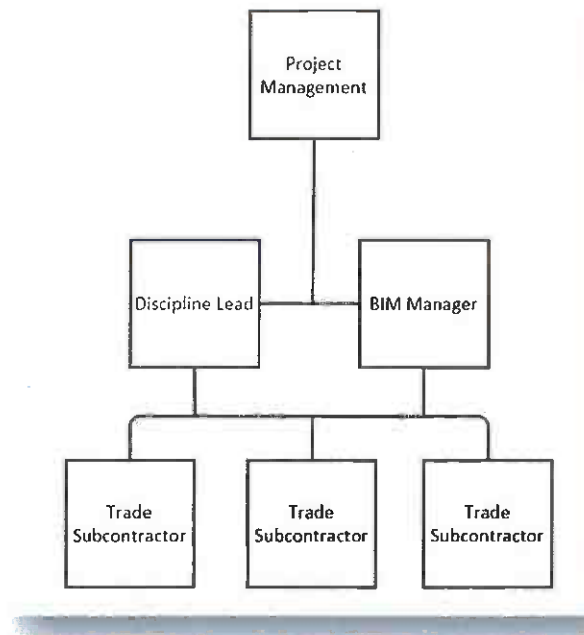
2.2.1 Project BIM Leadership



2.2.2 Design BIM Team



2.2.3 Construction BIM Team



2.3 BIM Staff Directory

The following table lists the contact information of the key BIM staff on the project.

Name	Organization	Role/Title	Email	Phone
Construction Team				
Scott O'Brien	SFJV	Construction BIM Manager	scott.obrien@skanska.com	
Hamid Behroozi	SFJV	Construction BIM Manager	hbehroozi@flatironcorp.com	
Design Team				
Mike Smith	HNTB	Design BIM Manager	mwsmith@hntb.com	(530) 388-4727
Winston Pagliaro	HTNB	Deputy Design BIM Manager	wpagliaro@hntb.com	(801) 736-4929
Mark Plummer	HNTB	Design CADD/Production Manager	mplummer@hntb.com	(816) 527-2663
Bill Marek	HNTB	Deputy Design CADD/Production Manager	bmarek@hntb.com	(714) 863-5497
Lei Xu	HNTB	Maintenance of Traffic BIM Lead	lxu@hntb.com	(469) 341-9448
Taylor Henderson	HNTB	Utility Task/BIM Lead	thenderson@hntb.com	(310) 846-1827
Brent Mayhew	HNTB	Roadway Task/BIM Lead	bmayhew@hntb.com	(816) 527-2774

Jesse Morton	HNTB	Road Task/BIM Lead	jmorton@hntb.com	(213) 403-1032
Rodrigo Nascimento	HNTB	Drainage BIM Lead	rnascimento@hntb.com	(619) 684-7412
Christina Villela	HNTB	Traffic BIM Lead	avillela@hntb.com	(714) 460-1612
Brian Seaman	HNTB	ITS BIM Lead	bseaman@hntb.com	(619) 684-7402
Kuan Go	HNTB	Civil Structures Task/BIM Lead	kgo@hntb.com	(408) 346-9304
Eric Gobuty	HNTB	Wall Task/BIM Lead	egobuty@hntb.com	(310) 846-1824
Chris Bryant	HNTB	Vertical Structures BIM Lead	cbryant@hntb.com	(816) 527-2151
Sean McCarty	Paul Murdock Architects	Architecture BIM Lead		
Soda Pay	Lynn Capouya Inc.	Landscape BIM Lead	soda@lcapouya.com	(949) 756-0150
Albert Orozco	Paul Murdock Architects	Architecture BIM Lead	albert@paulmurdockarchitects.com	(310) 358-0993

2.4 Roles and Responsibilities

2.4.1 Construction BIM Team Key Roles and Responsibilities

The following sections include descriptions of the three key BIM roles on the construction team:

- Construction BIM Manager
- Construction Discipline Lead
- Trade Subcontractor

Construction BIM Manager

The construction BIM Managers role will be in overseeing and directing the implementation of BIM technology and processes after the design is complete. Serving as the point of contact for BIM post-design and ensuring all BIM-related standards are maintained as models progress from design to construction to as built. The BIM manager will maintain the construction model integrity, design intent and standards as it transitions from the design team to the Trade Subcontractors throughout construction.

Key Responsibilities:

- Maintain BIM standards, protocols, automation, and workflows for the project, ensuring consistency and efficiency.
- Lead and mentor Trade Subcontractors and other BIM professionals, fostering a collaborative environment.
- Review and integrate discipline-specific models into a unified Construction model, ensuring interoperability and alignment.
- Provide training and support to the construction team on BIM software and best practices.
- Coordinate with project managers, task leads, and other stakeholders to ensure BIM objectives align with project goals.
- Regularly review and audit BIM models to ensure quality and compliance with project standards.

- Supervise the creation of models pertinent to their discipline, ensuring compliance with project modeling standards and Level of Detail (LOD) criteria.
- Facilitate model coordination with all Trade Subcontractors, addressing and resolving model clashes and any other modeling discrepancies.
- Oversee the development of specific Trade Subcontractor models into as built models.

Construction Discipline Lead

The Construction Discipline Lead is instrumental in ensuring the discipline's design intent is maintained and reflected as an accurate Trade Subcontractor model. Collaborating closely with discipline task leads, engineers, and designers, the construction discipline lead ensures the accuracy and compatibility of the Trade Subcontractor.

Key (BIM) Responsibilities:

- Oversee the creation and submission of 2D shop drawing plans and products.
- Review 2D shop drawing plans before they are submitted for completeness.
- Work with the Construction BIM Manager to coordinate and ensure accurate representation and design requirements are met with the Trade Subcontractor model.
- Attend model coordination meetings with Construction BIM Manager, fellow Construction Discipline Leads and Trade Subcontractors, addressing and resolving model clashes and any other modeling discrepancies.

Trade Subcontractors

The Trade Subcontractor is instrumental in translating the discipline's design intent into an accurate digital model. Collaborating closely with discipline task leads, engineers, and designers, the Trade Subcontractor ensures the accuracy and compatibility of the design model

Key (BIM) Responsibilities:

- Spearhead and supervise the creation of models pertinent to their discipline, ensuring compliance with project modeling standards and Level of Detail (LOD) criteria.
- Develop essential content to accurately represent their discipline's scope, including but not limited to Civil 3D styles & subassemblies, ORD/InRoads templates & feature definitions, Revit Families, etc.
- Attend model coordination meetings with Construction BIM Manager, Construction Discipline Leads and other Trade Subcontractors, addressing and resolving model clashes and any other modeling discrepancies.

2.4.2 Design BIM Team Key Roles and Responsibilities

The following sections include descriptions of the three key BIM roles on the design team:

- Design BIM Manager
- Discipline BIM Lead
- CADD & Production Manager

Design BIM Manager

The BIM Manager plays a pivotal role in overseeing and directing the implementation of BIM technology and processes on the project. Serving as the principal point of contact for all BIM-related activities, they ensure that BIM is optimally utilized to achieve project objectives and maintain a consistent standard.

Key Responsibilities:

- Develop and implement BIM standards, protocols, automation, and workflows for the project, ensuring consistency and efficiency.

- Lead and mentor Discipline BIM Leads (DBLs) and other BIM professionals, fostering a collaborative environment.
- Review and integrate discipline-specific models into a unified project model, ensuring interoperability and alignment.
- Provide training and support to the project teams on BIM software and best practices.
- Coordinate with project managers, task leads, and other stakeholders to ensure BIM objectives align with project goals.
- Regularly review and audit BIM models to ensure quality and compliance with project standards.

Deputy Design BIM Manager

The Deputy Design BIM Manager will support the BIM Manager in the successful implementation and management of BIM technology and processes throughout the project. This role is crucial in ensuring that BIM is leveraged effectively to meet project objectives and maintain high standards. The Deputy will work closely with the BIM Manager and project teams, contributing to the development, execution, and oversight of BIM protocols and practices.

Key Responsibilities:

- **Support BIM Standards Implementation:** Assist in developing, implementing, and maintaining BIM standards, protocols, automation, and workflows, ensuring consistency and efficiency across the project.
- **Collaborative Leadership:** Collaborate with and provide guidance to Discipline BIM Leads (DBLs) and other BIM professionals, fostering a culture of teamwork and continuous improvement.
- **Model Integration:** Work alongside the BIM Manager to review and integrate discipline-specific models into a cohesive project model, ensuring interoperability, accuracy, and alignment with project goals.
- **Training and Development:** Provide training, mentorship, and technical support to project teams, promoting best practices in BIM software and workflows.
- **Coordination with Stakeholders:** Coordinate with project managers, task leads, and other stakeholders to ensure that BIM objectives are fully aligned with the overall project strategy and objectives.
- **Quality Assurance:** Assist in regularly reviewing and auditing BIM models to ensure they meet the project's quality standards and comply with established protocols.

Discipline BIM Lead (DBL)

The Discipline BIM Lead (DBL) is instrumental in translating the discipline's design intent into an accurate digital model. Collaborating closely with discipline task leads, engineers, and designers, the DBL ensures the accuracy and compatibility of the design model.

Key Responsibilities:

- **Spearhead and supervise the creation of models** pertinent to their discipline, ensuring compliance with project modeling standards and Level of Detail (LOD) criteria.
- **Facilitate model coordination** with fellow DBLs, addressing and resolving model clashes and any other modeling discrepancies.
- **Assist the BIM manager** in assimilating the discipline-specific models into the comprehensive federated project model.
- **Develop essential content** to accurately represent their discipline's scope, including but not limited to Civil 3D styles & subassemblies, ORD/InRoads templates & feature definitions, Revit Families, etc.
- **Collaborate with the design Computer-Aided Design and Drafting (CADD) production manager** to ensure the optimal utilization of project models in drawing production.

CADD/Production Manager

The Design CADD & Production Manager is responsible for converting the project BIM models to 2D contract drawings and other graphics. Leading the drawing production process, they ensure that designs are accurately represented, compliant with owner or AHJ presentation requirements, and ready for contractual purposes.

Key Responsibilities:

- Oversee the creation of 2D contract plans derived from comprehensive 3D models and other technical drawings, ensuring they meet owner and/or AHJ CADD standards and presentation requirements.
- Collaborate closely with the BIM Manager and Discipline BIM Leads (DBLs) to ensure seamless integration and accurate representation of BIM model in 2D plans.
- Maintain, develop, and enforce CADD standards and best practices to ensure consistency across all project drawings.
- Provide technical leadership and training to CADD technicians and drafters, ensuring proficiency in software and adherence to project standards.
- Review 2D plans before they are submitted or printed for completeness.
- Coordinate with project managers, contractors, and other stakeholders to clarify, adjust, and finalize design representations in contract plans.

2.5 Meetings and Coordination Procedures

The table below lists the anticipated BIM-specific meetings that will be required during the duration of the project. The table is not exhaustive and additional BIM meetings may be required.

Meeting	Project Stage	Frequency	Participants	Location	Purpose
BIM Requirements Kick-Off	NTP + 14 Days	After first approved task order	SFJV, HNTB, LAWA	IPO	Align on BIM requirements, LAWA input for BxP and proposed exceptions to standards
BIM Execution Plan Workshop	NTP + 30 days	After first approved task order	SFJV, HNTB, LAWA	IPO	BxP presentation and page turn with LAWA
Design BIM Kickoff	NTP + 30 days	After first approved task order	Design Team	Virtual	Present BXP and train team on how to follow project standards and processes
Drawing Production	Design	Weekly	Task Leads, CADD Manager, Discipline BIM Leads and BIM Manager	Virtual	Ongoing status report on drawing production
Design and Construction BIM Management Task Force	Design	Bi-Weekly	Design and Construction BIM Managers	Virtual	Meeting between both construction and design BIM teams for over the shoulder model progression reviews
Design BIM Coordination	Design	Weekly	BIM Manager, Discipline BIM Leads	Virtual	Ongoing BIM status report and 3D design coordination
Spatial Coordination	Schematic Design, Design Development, IFC	As needed per Design Unit	BIM Manager, BIM Leads, Project Management, Task Leads	Virtual	Formal meeting to verify spatial coordination

3.0 BIM/VDC Uses

3.1 Model Definitions

The model definitions herein have been copied directly from the LAWA BPXP template. They have been included for ease of reference.

3.3.1 Design Model

A Model that has reached the stage of completion in 3D that would customarily be expressed by an architect or engineer in two-dimensional construction documents. A Design Model is generally, an assemblage of several Models produced by various disciplines. It must be clear that each party be able to rely on the fact that the model furnished by others (designer, contractor, or trade subcontractor) "match" the 2D contract documents or shop drawings, generated by the model, in their equivalent state of development.

3.3.2 Construction Model

The Construction Model is generated by the Contractor or trade subcontractor. The Construction Model generates the Coordinated Construction and Shop Drawing Level Information. It is imperative that models furnished by others (designer, contractor, or trade subcontractor) "match" the 2D contract documents or shop drawings, generated by the model, in their equivalent state of development.

3.3.3 As-Built Model

Not used on this project.

3.3.4 Reconciled Record Model (RRM)

Not used on this project.

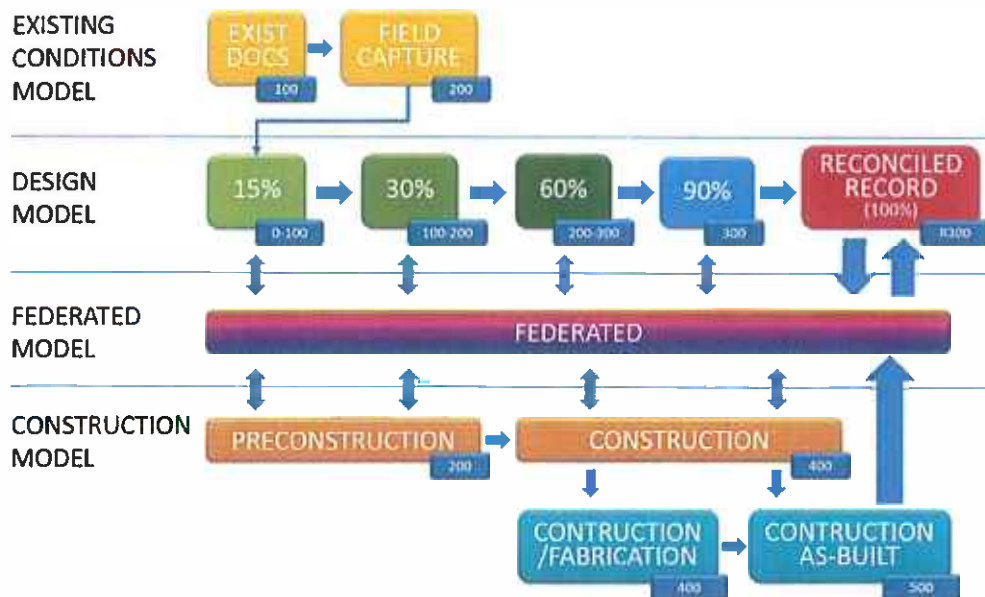
3.3.5 Facilities Model

Not used on this project.

3.3.6 Federated Model (FED)

The FED Model is comprised of all linked, Native Models and is a virtual representation of the entire Project developed to a specified Level of Development. The FED Model shall consist of all discipline Native Models such as Civil, Architectural, Structural, Mechanical, Electrical, Fire Protection, and Special Equipment, depending on the specific scope of the project.

3.3.7 BIM Model Progression Diagram



3.2 Model Use and Responsibility Matrix

The matrix below delineates the BIM/VDC uses for models created during the design phase in contrast to models created during construction. It also defines the team responsible for the creation of said models. This table should be referred to alongside Section 3.3 of the LAWA BPXP Template (Model Definitions), the Project LOD Specification (Appendix A) and Section 5 of this document. Models provided by the DT are intended for CJV's reference purposes only.

BIM Use	Description	Responsible Team	Corresponding BIM Model
Design Phase			
Existing Conditions Modeling	Developing a model of the existing conditions of features impacted by the project using survey data and record drawings	DT	Design Model
Design Authoring	A procedure where software is utilized to create a model that accurately reflects the design intent	DT	Design Model
Drawing Generation	Creation drawings from the model for the purpose communicating design intent and supporting construction activities (i.e. plans).	DT	Design Model
Design Review	Using 3D models as a tool to facilitate design criteria validation and QA/QC	DT	Design Model
3D Design Coordination	A process where software is used to identify spatial inferences by comparing design 3D elements	DT	Design Model

Visualization	Creation or supplementation of a Model to generate visuals, animations, pictures, and schematics.	DT	Enhanced Design Model
Construction Phase			
Shop/fabrication drawings	Construction models are generated by the Contractor or trade subcontractor. The Construction Model generates the Coordinated Construction and Shop Drawing Level Information	SFJV & Trade Contractors	Construction Model
Clash detection/Trade Coordination	The use of 3D models provided by design team and trade contractors to verify fitment and identify conflicts	SFJV	Federated Model
Site utilization and logistics	Develop models to aid in construction planning, traffic management, crane operation sequences, and safety zone delineation	SFJV	Federated Model
As-Built Measurements	The "As-Built Model" is a further development of the "Construction Model" that has been spatially and technically validated in the field. When possible, as-built measurements should be created in their original native format for incorporation back into the design model.	SFJV	As-Built Model
As-Built records	This is the Design Model after being reconciled with the Contractor-provided As-Built Model(s). The RRM is the basis BIM model of the "Record Documents" and is submitted as part of project close-out.	To be determined	Reconciled Record Model

4.0 Model Data Exchange and Collaboration Processes

The following subsections detail how each BIM team will manage their model data and explains the processes used to exchange BIM information between the project BIM teams.

4.1 Design Models

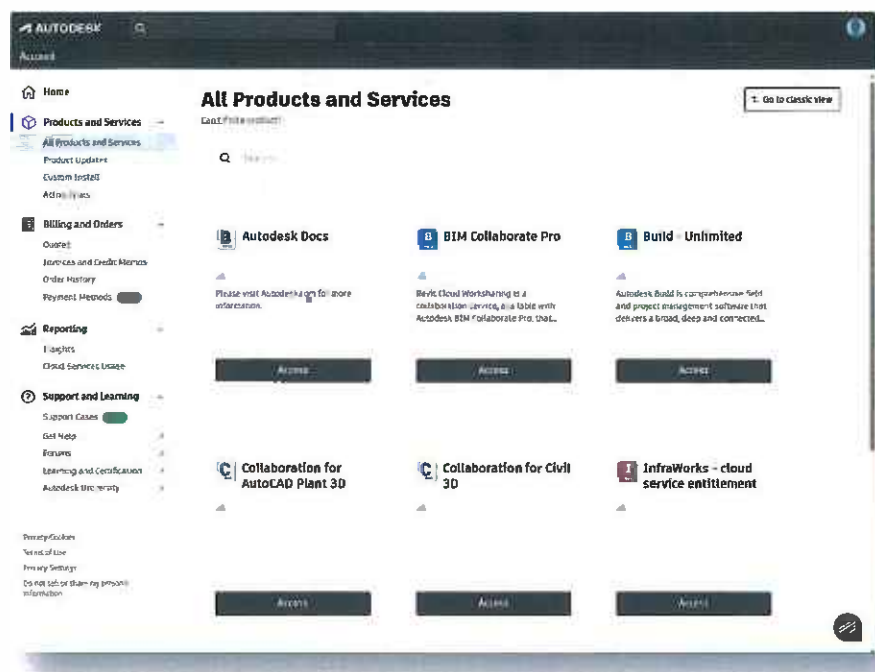
4.1.1 Common Data Environment (CDE)

The storage and collaboration methods for all design models are facilitated through the Autodesk Construction Cloud (ACC), within the project "71472_ATMP" project which is under the ownership and management of HNTB. ACC serves as a hub for the design team to engage and work together throughout the design's evolution. Additionally, ACC offers capabilities like monitoring and web browser-based visualization of model information, along with various other features including clash detection and issue tracking. The use of these features to facilitate design BIM processes are described in the later sections.

Autodesk BIM Collaborate Pro (BCP) serves as the primary collaboration tool for teams participating in the project's design phase. BCP is an additional module of ACC which enables essential work-sharing capabilities in model authoring software for ACC-based datasets. In addition to BCP, the design team is utilizing features from the Autodesk Build (AB) module in ACC for organizing photo data and construction documents. **As such, all members of the design team must ensure they possess the necessary licenses and/or access rights to utilize ACC, AB and BCP.**

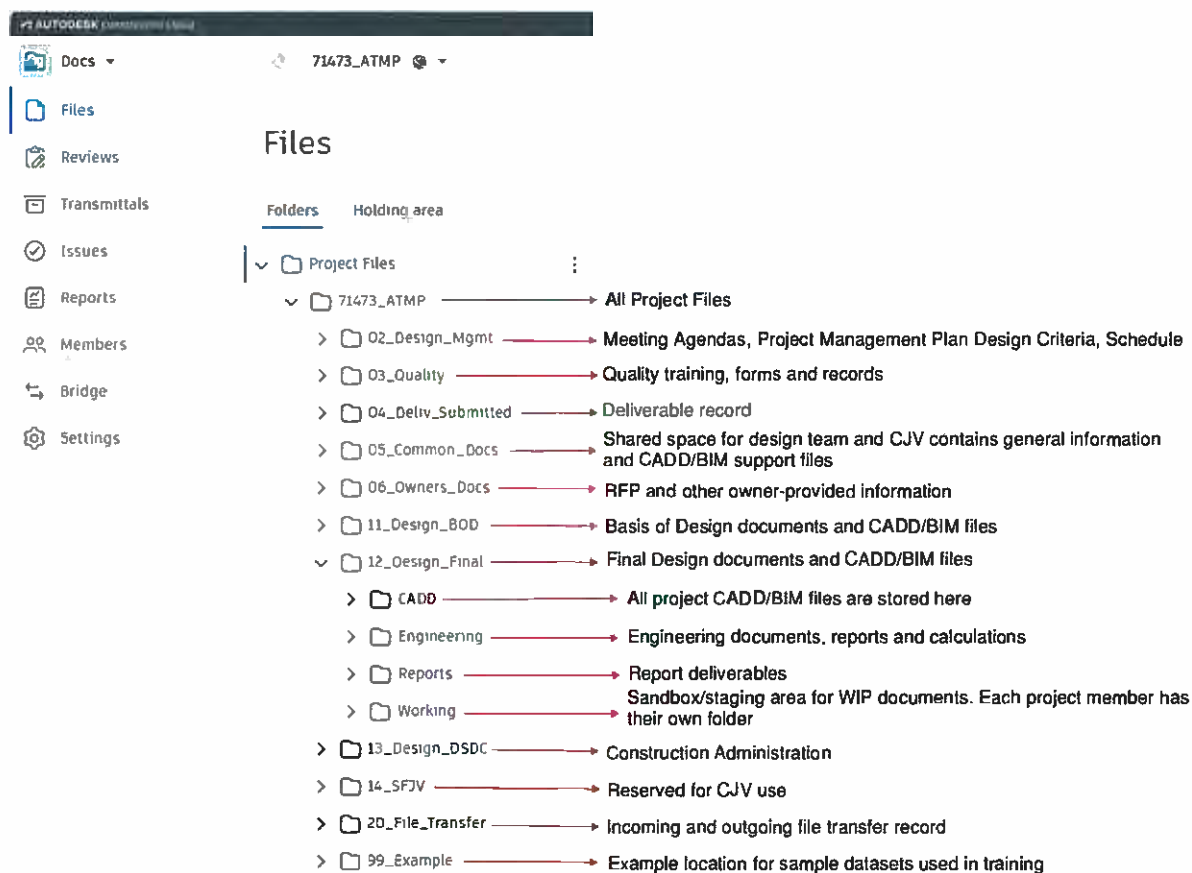
Prior to viewing, opening, or editing any project files hosted on ACC, all design team members must confirm that they:

1. Have installed the current project-approved versions of Civil 3D, InfraWorks and/or Revit depending on their discipline. Refer to Section 6.0 for a list of approved software versions.
2. Are entitled to Autodesk BIM Collaborate Pro and Autodesk Build. This information can be found in the "All Products and Services" page of their user account at manage.autodesk.com. If properly entitled, the account page should appear like this:



3. Have requested access to the "71473_ATMP" project ACC site hosted by the HNTB account. To request access please follow these steps:
 - i. Notify your discipline BIM lead that you require access and provide your name, email address and role on the project.
 - ii. Discipline BIM leads will forward the request to an appropriate project administrator who is responsible for adding users to the project and managing their access. If a user needs restricted or only read-only access, the discipline BIM lead should make note of that when communicating the access request.

The following figure shows the directory structure of the common data environment and a description of each directory. Access these directories may be limited depending on roles and responsibilities. All CADD and BIM data must be stored in the 12 Design Final/CADD folder. Refer to Section 6.0 for a detailed description of the CADD folder's subdirectories.



4.1.2 Model Collaboration and Delivery Procedure

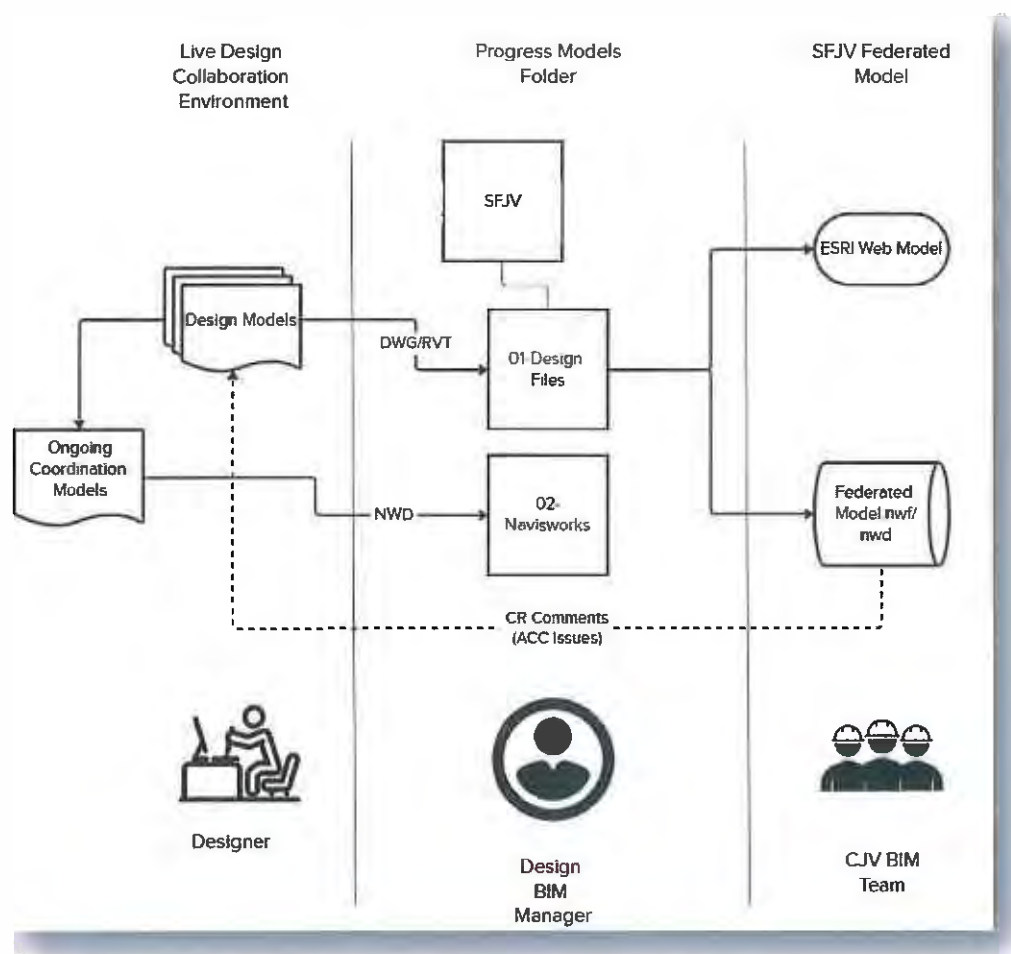
The project's horizontal design predominantly includes roadways, sidewalks, retaining walls, utilities, drainage systems, wayfinding, striping, street lighting, traffic signals, intelligent transportation systems (ITS), and landscaping. The horizontal design models are created and documented using Autodesk Civil 3D. The project's vertical components are primarily bridges (pedestrian and vehicular) and retaining walls which may be modeled using Civil 3D, InfraWorks, Revit, Rhinoceros and/or a combination thereof, and are delivered and documented in a combination of AutoCAD and Revit. All design models are stored and managed in the project's design CDE described above.

To enable real-time coordination between disciplines during the development of the design, all design files in the CDE should be the "live" most current version. Since the versions of the models are always kept up to date on the CDE, there is no upload schedule for files. Working on data offline and then updating a

version on the CDE is prohibited. Work in progress models that are not yet ready for use by the broader project team may be stored in individuals' "Working" folder on the CDE.

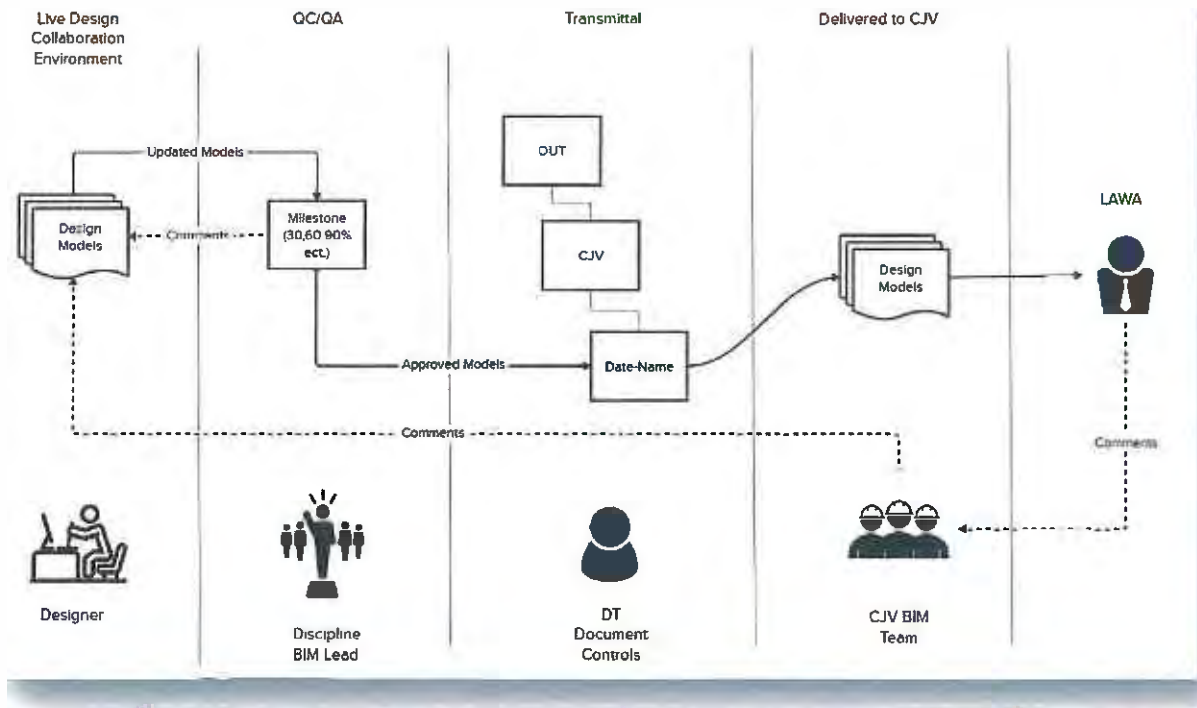
4.1.2.1 Progress Model Delivery

During each design stage (Schematic, Design Development and 90%/IFC) progress versions of the design models are shared with the SFJV BIM team on a bi-weekly basis via the process shown in the flowchart below. The intent of these progress models is to demonstrate progress on the model development and to give the SFJV team an opportunity to review and comment on the models ahead of the milestone model deliverables. These progress models include the native versions of the design models (DWG, RVT), as well as a combined coordination model in Navisworks .NWD format. Progress models are delivered as-is and have not been formally reviewed for quality and coordination. Relationships between these progress models may not always be maintained.



4.1.2.2 Milestone Model Delivery

Design BIM models are checked for quality and coordination. After QC/QA the models are packaged such that their relationships are maintained, and placed in an appropriate transmittal folder in the CDE. The Design Team Document Control team then sends the model transmittal folder to the CJV for review, use as reference in construction modeling, and, ultimately, issuance to the owner (LAWA). If the CJV or owner requests changes or makes comments, the QC/QA process repeats to address, and the live models are retransmitted to the CJV through a new transmittal folder. The diagram below illustrates this process. See Sections 6.0 and 7.0 for a more detailed description of the model QC/QA process.



4.1.3 Coordination with Adjacent Projects

If coordination with an adjacent project requires that design models are transmitted, the process described in the previous section should be followed. Only milestone models shall be transmitted for adjacent project collaboration. SFJV can then transmit the models to the appropriate party accordingly.

4.2 Construction Models

4.2.1 Common Data Environment

Like "4.1.1 Common Data Environment (CDE)" the storage and collaboration methods for all construction models are facilitated through Autodesk Construction Cloud (ACC) except it will be managed by SFJV. This ACC serves as a hub for the construction team to engage and work together with the trade subcontractor models and coordination throughout construction progression into as built.

4.2.2 Model Collaboration and Delivery Procedure

Like "4.1.2 Model Collaboration and Delivery Procedure" construction models will use the same model file formats; Civil 3D, InfraWorks, Revit, Rhinoceros and/or a combination thereof, and are delivered and documented in AutoCAD.

Coordination between disciplines will happen prior to shop drawing submittals. The individual trade models developed by subcontractors are "frozen" (locked as "read-only" in ACC) and the latest versions are copied into a separate QC/QA directory by their respective discipline BIM lead for QC and Trade Coordination. After QC and Trade Coordination comments are made, the models are "unfrozen" by the respective discipline BIM lead so that they may be updated to address the comments. Once the models have cleared QA the latest (updated) live versions are then copied into a transmittal folder, again by the discipline BIM lead. Document control then sends the model and shop drawing transmittal to the DT for review and

approval. If the DT requests changes or makes comments, the QC/QA process repeats to address, and the live models are retransmitted to the DT through a new transmittal folder.

5.0 LOD and Deliverables

5.1 Introduction

During the design and preconstruction stages, models will be created up to the Level of Development (LOD) specified in the Project LOD Matrix (Appendix A). This matrix should be used alongside this document, particularly Sections 3.0, 5.0, and 7.0. The standard baseline for design modeling is at the IFC stage is LOD 300. Any exceptions approved by the project team are detailed in the attached LOD Matrix.

If detailed visualizations of design elements are required for aesthetic evaluations, model development beyond LOD 300 may be necessary. The Design Model isn't meant for such detailed visual reviews and separate exhibits should be created.

Design Models will be passed to trade contractors via the CJV for use as a reference. Trade contractors will then produce construction models according to the Project LOD Matrix. These construction models are used in the creation of essential submittals, including shop and fabrication drawings.

Note: the LOD Matrix and BxP are dynamic documents and will be updated as the project progresses.

5.2 Definitions

The table below lists the fundamental LOD definitions provided by LAWA to be used when specifying element LOD in the project LOD matrix.

LOD	Definition
100	The Model Element may be graphically represented in the Model with a symbol or other generic representation, but does not satisfy the requirements for LOD 200. Information related to the Model Element (i.e. cost per square foot, tonnage of HVAC, etc.) can be derived from other Model Elements.
200	The Model Element is graphically represented within the Model as a generic system, object, or assembly with approximate quantities, size, shape, location, and orientation. Non-graphic information may also be attached to the Model Element.
300	The Model Element is graphically represented within the Model as a specific system, object or assembly in terms of quantity, size, shape, location, and orientation. Non-graphic information, such as parameters, shall also be included in the Model Element.
350	The Model Element is graphically represented within the Model as a specific system, object or assembly in terms of quantity, size, shape, location, orientation, and interfaces with other building systems. Non-graphic information, such as parameters, shall also be included in the Model Element.
400	The Model Element is graphically represented within the Model as a specific system, object or assembly in terms of size, shape, location, quantity, and orientation with detailing, fabrication, assembly, and installation information. Non-graphic information may also be attached to the Model Element. LOD 400 is shop drawing level.

5.3 Model Progression and LOD Matrix

Refer to the Model Progression matrix (Appendix A) for details on model development through the project timeline.

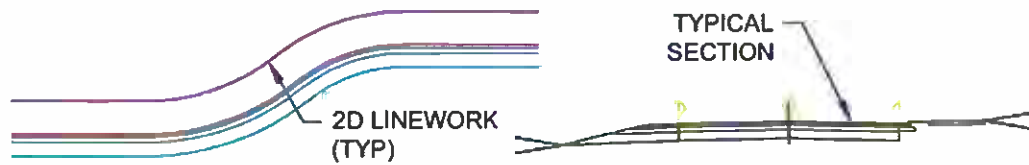
Because this project is not a traditional terminal or airside improvement, a project specific LOD matrix has been developed and has been used in lieu of the standard LAWA LOD Matrix. The project specific matrix includes a more specific breakdown of elements that are found in roadway and bridge construction, which are more applicable for the project.

5.4 Examples

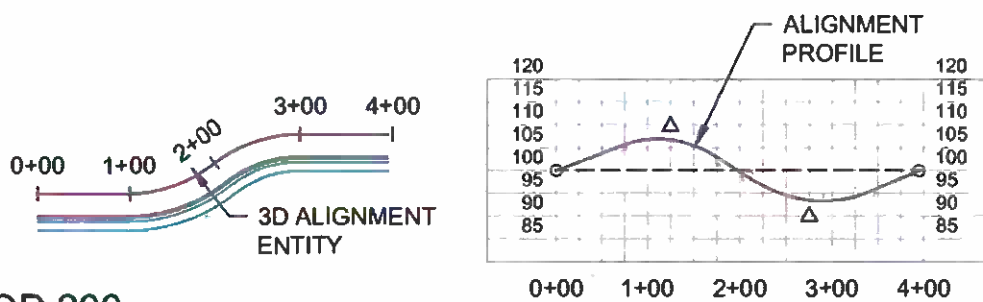
The following examples have been created to demonstrate levels of development for common project elements.

5.4.1 Roadway

ROADWAY LOD EXAMPLES



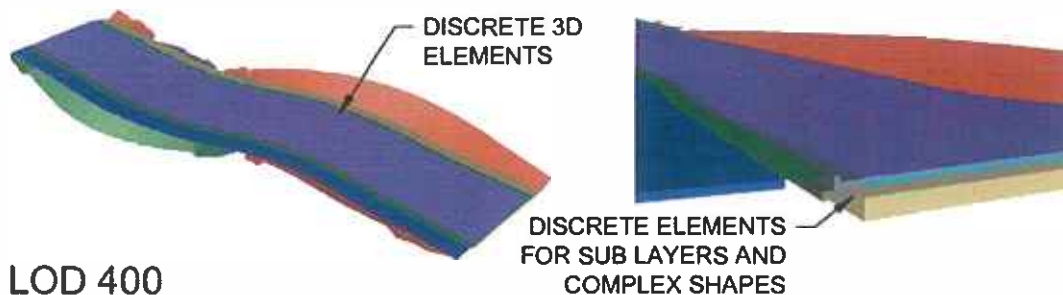
LOD 100



LOD 200



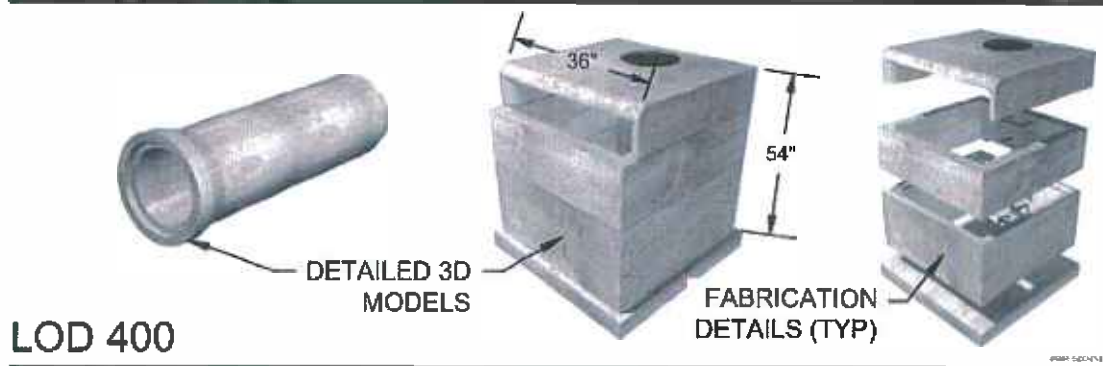
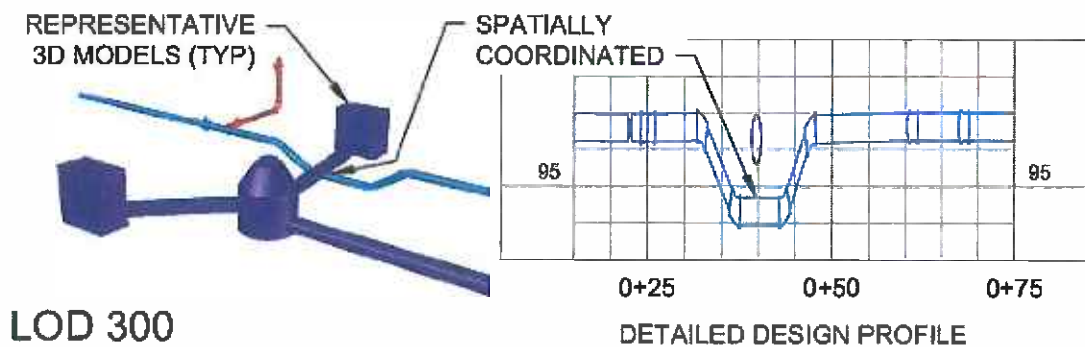
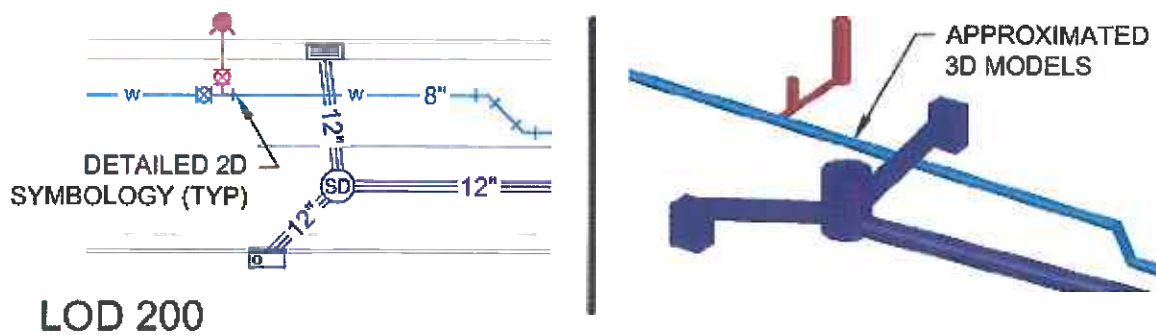
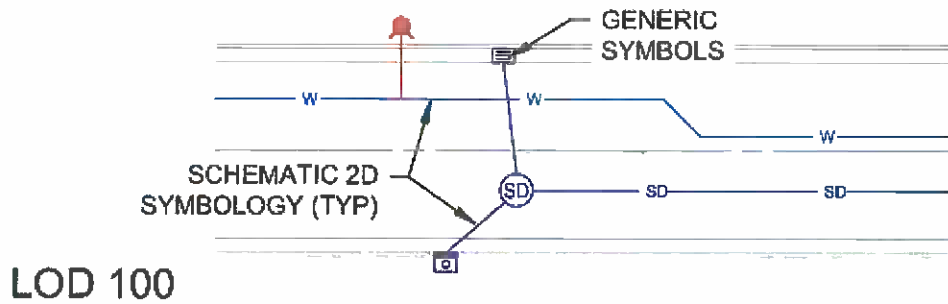
LOD 300



LOD 400

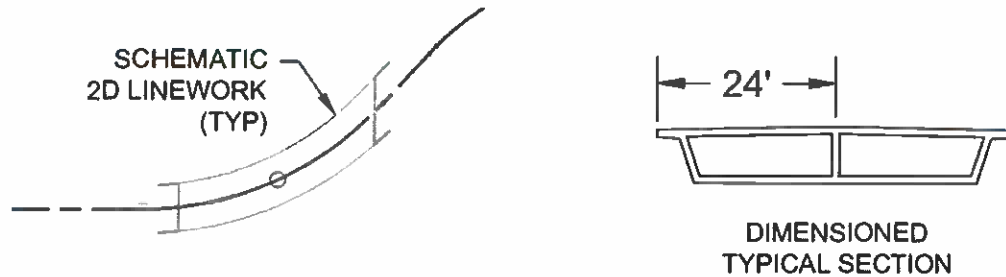
5.4.2 Utilities

DRAINAGE AND UTILITIES LOD EXAMPLES

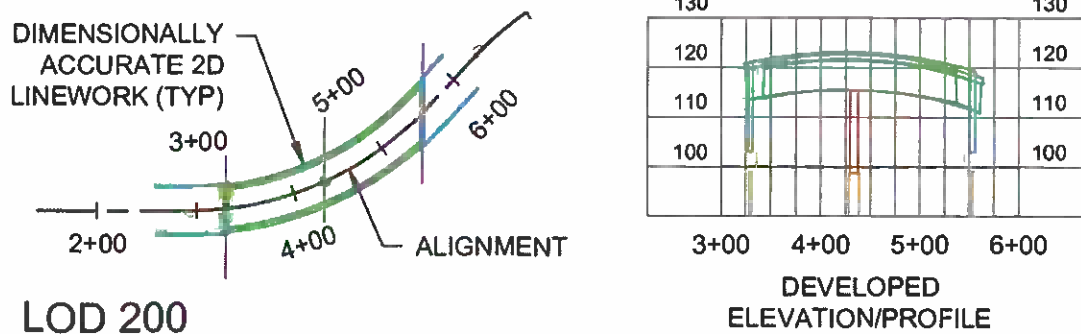


5.4.3 Structures

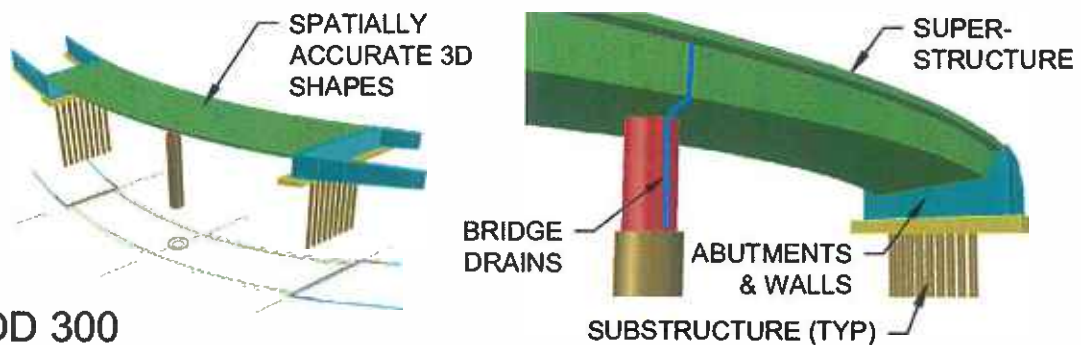
STRUCTURES LOD EXAMPLES



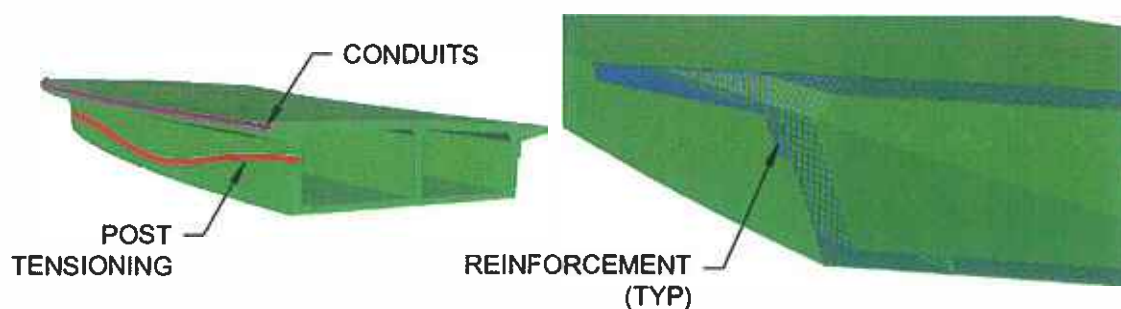
LOD 100



LOD 200



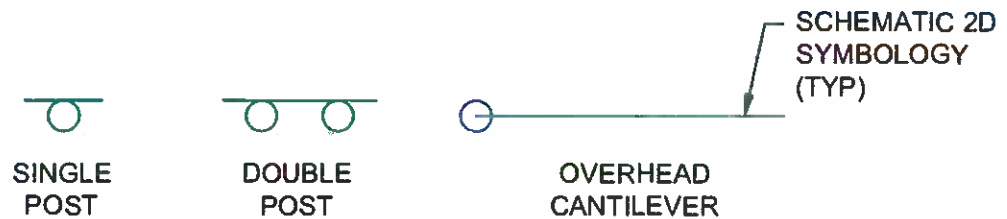
LOD 300



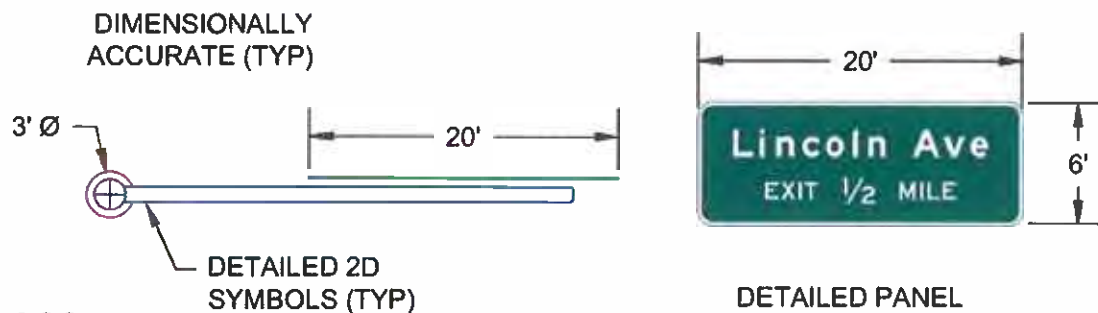
LOD 400

5.4.4 Signs

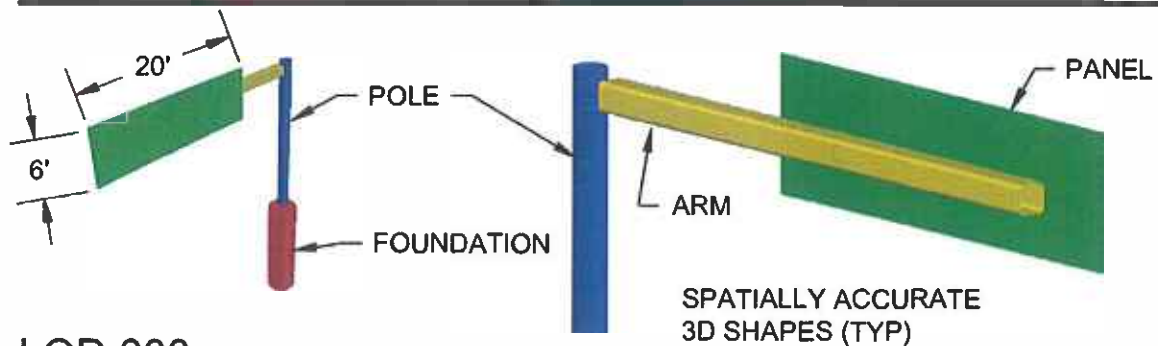
SIGNAGE LOD EXAMPLES



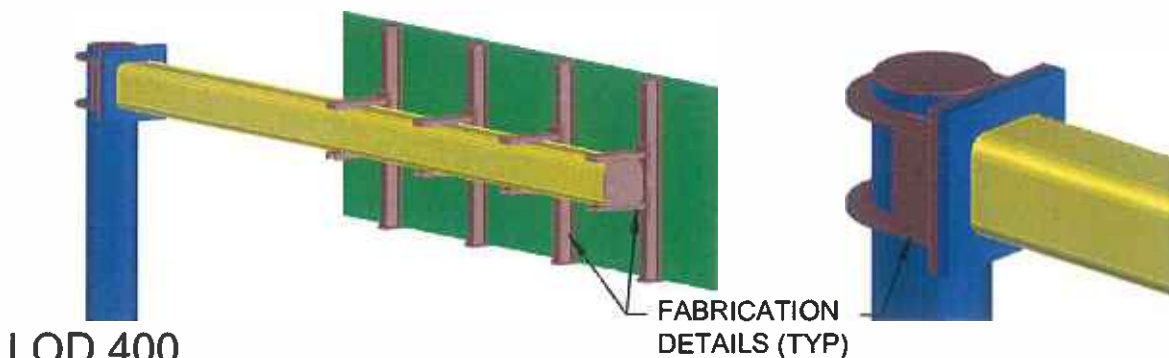
LOD 100



LOD 200



LOD 300



LOD 400



6.0 Modeling Standards, Protocols, & Governing Software

6.1 General Model Standards

These general model standards apply to all Design and Construction Models.

6.1.1 Model Geolocation and Coordinate system

The project coordinate system(s) are as follows:

Horizontal: CA83-VF

Vertical: NAVD88

Units: US Survey Feet

Geometry in AutoCAD/Civil 3D (.dwg) files must be drawn at their real respective coordinates relative to the project coordinate systems, with the following exceptions:

- Detail drawings
- Sheet border files

Revit (.rvt) models must use shared coordinates for geolocation. Refer to LAWA's [2022 BIM standards, Section 7.2](#) for instructions to geolocate Revit models by acquiring shared coordinates from the LAWA-Provided Revit Templates. All DWG exports from Revit are in units of feet and are relative to the shared coordinate system. The project base point coordinates provided in LAWA's Revit templates are as follow:

E: 6439689.100

N: 1802166.290

Elevation: 105.11

6.1.2 Model Data Conventions

CAD Layer Naming

AutoCAD DWG layer naming on project CAD files is governed by the agency having jurisdiction of parts of the project represented by the CAD files. The table below lists the various AHJ's and their respective layer naming convention.

Agency	Layer Naming Standard
LAWA	National CAD Standards (NCS)
LABOE	National CAD Standards
Caltrans	Custom Caltrans
LADOT	Custom LADOT convention
LABSL	Customer LABSL convention
Utility Owners	Varies

Where an AHJ doesn't provide a standard and/or templates and resources (i.e. utility owners), National CAD Standards layer naming convention is used.

Layer Status Fields

Some AHJ layer naming includes provisions for assigning a layer status or disposition (e.g. existing, proposed). Where an AHJ does not provide provisions, a layer status field is applied. The following table lists approved layer status fields for use on the project which are defined in NCS:

Status	Field	Denotes
--------	-------	---------

Abandoned	-A	Existing facilities to be abandoned as part of the project
Demolished	-D	Existing facilities to be demolished as part of the project
Temporary	-T	Proposed temporary features
Stage & Phase	-#A	Stage and phase of construction (e.g 2B for stage 2, phase B)

Layer status fields are not required but should be used when it is important to make the distinction of an objects disposition. When utilized, the field is added to the end of the layer name. For example, if an existing utility is being demolished the portion being removed should be placed on a new layer with the “-D” status field applied to it.

Original Layer Name: R-UTIL-PIPE

New Layer with Status Field: R-UTIL-PIPE-D

Revit Phasing

Revit elements shall be assigned to the appropriate phase. New phases may be created as needed to accurately organize elements.

6.2 Design Models

6.2.1 Design Governing Software

The following table lists the current list of design software and version approved for use on the project:

Software	Release	Version Number	Notes
Revit	2023	2023.0.11.19	
Civil 3D	2023	2023.3.2	
InfraWorks	2024	2024.1.1.41	
Navisworks	2023	20.2.1393.45	
Rhinoceros	6, 7 & 8	-	
Autodesk Desktop Connector	N/A	Latest	

Updates to the approved project software may take place during the duration of the project. The BIM management team will assess the potential of transitioning to newer software versions if updates make previous versions obsolete or provide improved features beneficial to the project. A software upgrade will be adopted only after the BIM team officially determines that it will add significant value to the project, weighing the associated costs and migration implications.

Software Configuration

Civil 3D Profile

To drive adherence to project standards and consistency in deliverables a project-specific Civil 3D profile has been created. The profile contains project-specific variable settings which can, and occasionally will be updated by BIM management during the project. The profile also autoloads the LISP routines described in the following section.

Instructions for installing this profile can be found here: [ATMP CAD Setup Instructions](#). Use of this profile is mandatory when authoring project files in AutoCAD or Civil 3D. Note that this process can only be completed after access to the project ACC site has been granted.

Project LISP Routines

See table below for a description of the project LISP routines.

Name	Key-In	Description
Acad.lsp	N/A	Runs at program startup and sets variables and support file search paths
Acaddoc.lsp	N/A	Runs when a drawing is created or opened. Sets drawing-specific settings, autoloads lisp tools, and redefines the QSAVE command to include regapp and annotation scale purging
Laylist.lsp	"LAYLIST"	Similar to the in-built "XLIST" command, but this version works on nested XREF layers
PM.lsp	"PM"	Reduces number of clicks when editing multiple polylines
Setstandards.lsp	N/A	Sets project support file search paths to ACC. Is called by Acad.lsp
SWTP.lsp	"SWTP"	Switches between out of the box and project-specific tool palette
TLEN.lsp	"TLEN"	Calculates the total length of selected elements
TROT.lsp	"TROT"	Rotates text to align with line
TW.lsp	"TW"	Rotates view and aligns crosshairs/snapang to the new view rotation.

AutoCAD/Civil3D Tool Palettes

Project-specific tool palettes have been created to streamline access to project and AHJ symbology and annotation. These tool palettes are enabled in the project CAD profile and can be accessed by keying in the "SWTP" command at the Civil 3D command line.

CAD/BIM Support Files

All project CAD/BIM support files are stored in the [05 Common Docs/10 Support](#) folder. These files are critical to the proper function of the software, and they are referenced by both the Project Civil 3D profile and tool palettes. A description of the subdirectories under 10_Support is shown in the table below:

Directory	Description	Example Contents
Documents	AHJ and other agency standards	LAWA BIM 2022 standards, Caltrans PPM and LABOE CAD Standards
Dynamo	Project-Specific dynamo scripts	BOE Construction notes.dyn
Library	Project-specific CAD/BIM content	AutoCAD blocks, Revit Families, ect.
Plotting	AutoCAD Plot Styles and other Printing Configuration files	Project .stb file, .pc3 file for plotters
Profiles	AutoCAD .arg Profiles	Civil 3D 2023 ATMP.arg
Resources	AutoCAD support files	LISP routines, shx files, font mapping, linetypes

Templates	Project-specific drawing and model templates	2023_ATMP_C3D.dwt Blank.dwt
Tool Palettes	AutoCAD tool palette source files	.atc files for tool palettes, image files for tool palette icons

6.2.2 Design CADD/BIM Model Data Structure

File Types

DWG files used on the project fall into one of the following five file type categories:

- Reference
- Model
- Container
- Sheets
- Exhibits

Each type of file has a specific use in the project data structure and drawing production workflow. The following subsections describe each of the file types. Revit (.rvt) files are always Model files.

Reference

Reference files are intended to be used as External References (XREFs) in AutoCAD and Civil 3D. These drawings should only contain basic AutoCAD geometry – **no text or Civil 3D data is allowed**. Examples of reference files include:

- Survey Planimetrics
- Proposed 2D Horizontal Geometry
- 2D Utility Maps
- Right of way and property boundary maps
- Drawing borders and title blocks

Reference files may be overlayed into any of the other project file types. Only attach reference files in Container files.

Model

Model files contain the source information for project models. These files are considered the “working” engineering models where the design is developed, and the graphics contained within are not intended for presentation.

Model files are never XREF'd into other drawings. Instead, data shortcuts should be created to display the information from the model file in base files, (DREF).

Models in Civil 3D include:

- Surfaces
- Alignments & Profiles
- Sample Lines
- Pressure Pipe Networks
- Gravity Pipe Networks
- Corridors
- View Frame Groups

Note: In some circumstances it is appropriate to reference a model file into a sheet file, if that model file's content does not support data shortcuts (i.e. AutoCAD 3D Solids).

Data Shortcuts (DREF)

Model information may be exchanged between model files via data shortcuts. Data shortcuts are maintained in the Data Shortcut Project which is a standalone folder in the project directory structure that is created and managed by Civil 3D. Some examples include:

- Alignment and a Surface model(s) are DREF'd into a Corridor model file for use in the corridor design
- Surface models are DREF'd into a Pipe Network model file for reference when designing the Pipe network

Container Files

Container files are used as a place to host several attached reference files and, in some cases, Civil 3D data from the project models via DREF for presentation in sheet files. Container files can be used to provide a comprehensive reference for data that may be broken into several files due to deliverable packaging requirements.

When Civil 3D data is used in a container file, it should can be stylized and annotated per the project graphic standards. Attached XREFs may be clipped in container files. Container files are XREF'd into sheet files for final annotation and presentation in the contract documents.

Sheets & Exhibits

Sheet and exhibit files overlay reference and base files. Annotation is added to create PDFs. No design data is produced directly in any sheet file. Sheet files may only host Model data via DREFs when approved by the BIM manager. Multiple layout tabs are not allowed – there must be one sheet file dwg for every PDF that is produced.

6.2.3 Directory Structure

All CAD/BIM files are stored under the CADD folder on ACC. The CADD folder has several subdirectories, each intended to contain specific files described in the preceding sections. The following table contain a description of each subdirectory and its intended use.

Directory	Description
_Shortcuts	The _Shortcuts directory is created and managed by Civil 3D. This folder contains XML files which define the Civil 3D data shortcuts for the project. Never manually modify this folder or the files contained within.
Aerial	The Aerial folder is reserved for aerial imagery and associated "sister" files required for correlating the images geographic position. Subdirectories are created to separate aerial images by capture date and/or location
Base	This folder contains Reference and Container files, as described in the previous section. All reference and container files used on the project, regardless of what discipline they support, are stored in this location.
Coordination	The subdirectories in this folder contain coordination files that are referenced by the Model Coordination module in ACC for spatial coordination and clash detection.
Exhibits	This folder contains all non-contract drawing exhibits and graphics. Subfolders may be created to separate exhibit files into different areas, disciplines, ect.
Model	Model files are stored in this directory.
Sheets	The location for all sheet files used on the project. Sub directories are created under this directory for each drawing package, design unit, etc. All sheet files

	included in a package are saved within their respective sub directory, regardless of discipline.
Plots	Sub directories are created underneath the plots folder to mirror those subdirectories present in the sheets folder. When plotting PDFs from sheet files, the resulting PDFs are saved here. When sheets are revised and replotted, they should overwrite the previous version in this directory to create version history In ACC.

6.2.4 File Naming

All BIM files for the project shall use combinations of the following components to form their respective file names.

Naming Components

Abbr. Description

PI	Project Identifier
DD	Discipline Designator
DT	Data type
-X	File type
UD	User defined
.ext	File extension (e.g. .dwg)

Each of these components and their respective approved values are described following subsections.

Project Identifier

The project identifier should be used when it is necessary to make a distinction of what specific part of the project a file is related to. Project identifiers may either be a number, text string, or combination of and must be unique.

The project drawings have been broken into several packages called Design Units (DUs). These design units break up the project plans into packages based on which agency will have jurisdiction of associated review. The Design Unit will be used for the PI after 30% plans have been submitted and construction plans are being generated. For example:

DU01 – Design Unit 01

Use of the project identifier is not required on Model, Container, Coordination or Reference files.

Discipline Designator

Discipline designators are used to identify the primary discipline represented by the data contained in the file. The list below contains approved discipline designators as defined by National CAD standards, V6.

G-	General
GC	General Contractual
GI	General Informational
GJ	User Defined
GK	User Defined
GR	General Resource
A-	Architecture
AD	Architectural Demolition
AE	Architectural Elements
AF	Architectural Finishes
AG	Architectural Graphics
AI	Architectural Interiors
AJ	User Defined

AK User Defined
AS Architectural Site

C- Civil
CD Civil Demolition
CG Civil Grading
CI Civil Improvements
CJ User Defined
CK User Defined
CN Civil Nodes
CP Civil Paving
CS Civil Site
CT Civil Transportation
CU Civil Utilities

L- Landscape
LD Landscape Demolition
LG Landscape Grading
LI Landscape Irrigation
LJ User Defined
LK User Defined
LL Landscape Lighting
LP Landscape Planting
LR Landscape Relocation
LS Landscape Site

R- Resource (Record Drawings)
RA Resource Architectural
RC Resource Civil
RE Resource Electrical
RJ User Defined
RK User Defined
RM Resource Mechanical
RR Resource Real Estate
RS Resource Structural
RU Resource Utilities

S- Structural
SB Structural Substructure
SD Structural Demolition
SF Structural Framing
SW Structural Wall
SJ User Defined
SK User Defined
SS Structural Site

V- Survey / Mapping
VA Survey / Mapping Aerial
VC Survey / Mapping Computed Points
VF Survey / Mapping Field
VI Survey / Mapping Digital
VB Survey / Mapping Boundary

VL	Survey / Mapping Land
VJ	User Defined
VN	Survey / Mapping Node Points
VS	Survey / Mapping Staked Points
VU	Survey / Mapping Combined Utilities

Data Types

Data types are used in conjunction with discipline designators to further define the contents of a file. The list below contains data type abbreviations and their respective definitions that are approved for use on the project.

AL	Alignment
AF	Airfield
AOA	Airport Operations Area
APM	Automated People Mover
AR	Aerial
BA	Barrier
BR	Bridge
BD	Border and/or Titleblock
CM	Communications
CR	Curb Ramp
DR	Drainage
DT	Detail
EL	Electrical
ER	Erosion Control
FD	Foundation
FG	Fine Grading
FO	Fiber Optic
FU	Fuel/Oil
FW	Fire Water
GR	Grading
IT	Intelligent Transportation Systems (ITS)
KM	Key Map
MK	Marking
NG	Natural Gas
LT	Lighting
PV	Pavement
PR	Profile
RD	Roadway
RG	Rough Grading
ROW	Right of way
RW	Retaining Wall
SD	Storm Drain
SN	Sign
ST	Staging, Maintenance of Traffic (MOT)
SP	Site Plan
SS	Sanitary Sewer
TC	Traffic Control
TP	Topography
TS	Traffic Signal
WT	Water
UT	General Utilities

File Type

The File Type component is used to identify a file's intended use as either a *reference*, *model* or *container* file. The three approved file type indicators are as follows:

- C Container
- M Model
- R Reference

User Defined

Some files may use an optional user defined component as part of their name. When warranted, user defined components should supplement the information already defined by the discipline designator and file type. Some examples include:

- Segment/Alignment
- Project Area
- Item Number (e.g. wall number, bridge number)

Reference, Model & Container File Naming

Reference, model, and display file names are comprised of the following components:

Abbr. Description

PI	Project Identifier (Optional)
DD	Discipline Designator
DT	Data Type
FT	File Type
UD	User Defined (Optional)

For example, a Civil (DD = C-) Roadway (DT = RD) reference (FT = -R) User Defined (UD = A for alignment A) dwg file results in the name:

C-RD-R-A.dwg

Or a Structures (DD = S-) retaining wall (RW) model (FT = -M) Revit file of Wall A1 (UD = A1) results in the name:

S-RW-M-A1.rvt

Sheet File Naming

Sheet file names should be comprised of the following components:

Abbr. Description

PI	Project Identifier
DD	Discipline Designator
SN	Sequence Number
###	Drawing number
UD	User Defined

The sequence number is a component unique to sheet files which is used to organize sheets into their respective sheet type. The table below lists approved sequence numbers and their respective types. These sequence numbers have been adapted from NCS v6.

General (Symbols, legend, notes, ect.)	0
Plans (Horizontal Views)	1
Elevations and Profiles	2
Sections and cross sections	3

Enlarged Plans	4
Details	5
Schedules and Diagrams	6

For example, Sheet 1 (### = 01) of a Civil Roadway (DD = CP) layout plan (SN = 1) dwg file for Design Unit 001 (PI = DU001) would result in the name:

DU01-CP1-001.dwg

Exhibit File Naming

Exhibit files are not required to follow a particular naming convention. They do, however, need to be organized into descriptive subdirectories under the CADD > Exhibits folder on ACC.

6.2.5 Model-Based Drawing Production

General Information

1. All files are created with templates provided by the CADD or BIM Manager. If a discipline requires specialized CAD resources, they must be either:
 - i) created by the CADD or BIM Manager
 - ii) reviewed and approved by the CADD or BIM Manager
2. All design information in DWG files must be positioned relative to the project coordinate system in model space, except for detail drawings and sheet borders.
3. All XREFs are always overlaid. Never attach an XREF to any project drawing, with the exception of container files.
4. Civil 3D DREFs may be hosted in model, container, coordination and exhibit files only. Never host DREFs in reference files. DREFs may be hosted in Sheet Files with BIM manager approval.
5. All CAD files must be stored in the CADD directory according to the guidelines contained herein. Do not store CAD or BIM files under any discipline-specific sub folders.
6. File naming must adhere to the standards defined herein. When using user defined file name components, limit the number of characters to a minimum. Use the description field in ACC to add additional details about a file's contents if needed.
7. Discipline BIM leads will assist their teams in following project data structure requirements.
8. Drawing (sheet) lists will be maintained by the CADD manager and discipline task lead and will be kept in the respective Sheets subdirectory.
9. Weekly CADD/BIM Production meetings will be held to report production progress and report any CADD/BIM technical issues.
10. Major design changes will be reported during weekly task lead meetings and via email. Ad-hoc CADD/BIM production meetings may be required in the event of a major design change.
11. Use of the AutoCAD sheet set manager to organize drawing sheets and update title block information is required. Sheet set files (.dst) should only be modified and managed by a single designated person or the project CADD/production manager

Project Templates and Resources

To facilitate modeling and model-based drawing production, project-specific drawing templates and associated AutoCAD & Civil 3D resources have been created for use in Civil 3D. These are not the standard templates provided by LAWA; instead, they have been created to support the graphics standards for the primary agency having jurisdiction (AHJ), the Los Angeles Bureau of Engineering (BOE), who will be primarily reviewing the project drawings.

Caltrans will have jurisdiction over some parts of the project. When Caltrans is the AHJ, standard Caltrans 2020 drawing templates will be used. All drawing templates and required support files are stored on ACC under the 10_Support directory described above.

The Los Angeles Department of Transportation (LADOT) also has jurisdiction on parts of the project. Where plans are prepared for LADOT, the appropriate LADOT templates should be used.

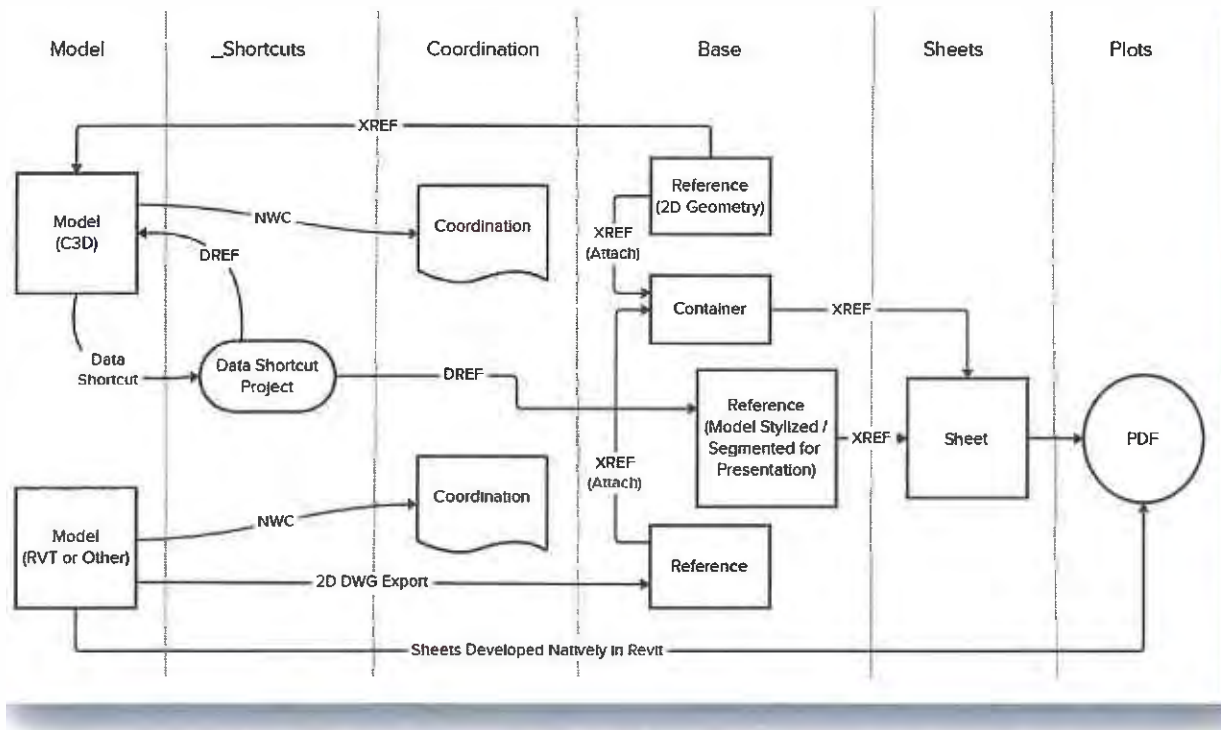
The table below lists the available project template files and their intended use. Note that Civil 3D reference templates are used to control drawing settings, graphic standards and Civil 3D styles. The source reference templates that control each project template are also noted in the table below. Changes to styles must either be made or approved by the project BIM and/or CADD Production Manager.

Template Name	Reference Template	Software	Uses	Notes
2023_ATMP_C3D.dwt	RefTemp-C3D	Civil 3D	Model Files Reference Files	Contains Civil 3D styles and project-approved NCS Layers for Civil/Roadway design.
2023_ATMP_ACAD.dwt	RefTemp-ACAD	AutoCAD or Civil 3D	Reference files Sheet files	Contains basic General layers and is intended to be used to create "light-weight" references with only required layers.
2020_CT_C3D.dwt	RefTemp-CT C3D	Civil 3D	Container files (CT)	Content linked to Caltrans Civil 3D Styles.
Blank.dwt	None	AutoCAD or Civil 3D	Reference Files Exhibits	Contains no resources. Is intended to be linked with a reference template to bring in styles, and layers as needed.
2023_ATMP_STRC.dwt	RefTemp-STRC	AutoCAD or Civil 3D	Reference files	Contains NCS layers for structural design and Civil 3D styles for bridge modeling and drawing production.
2020_CT_STRC.dwt	RefTemp-CT STRC	AutoCAD Or Civil 3D	Reference files	Contains Caltrans layers for structural design
_Geo Template.dwt	N/A	AutoCAD or Civil 3D	Reference Files	LADOT geometric template for signing and striping
_Signal Template.dwt	N/A	AutoCAD or Civil 3D	Reference Files	LADOT Traffic Signal Template
LAWA Revit Template 2023.rte	N/A	Revit 2023	Revit Models	LAWA issued Revit Template which has been upgraded to the 2023 version of Revit
BOE SSM Template.dst	N/A	AutoCAD or Civil 3D	AutoCAD Sheet Set template	Contains custom fields for the project BOE titleblock. Should be used when creating new sheetsets for drawings where BOE is the AHJ
CT SSM Template.dst	N/A	AutoCAD or Civil 3D	AutoCAD Sheet Set template	Contains custom field for use with the Caltrans titleblock for Caltrans AHJ drawing packages.

Cut sheet templates have also been created. These drawings contain viewports and sheet borders that match the standard project sheet-cut layout. These drawings also have common project reference files like topography, roadway planimetrics, ect. pre-loaded and layer managed. When creating a new discipline drawing package, these files should be used as the basis. The CADD manager is responsible for initial cut sheet creation.

Drawing Production Reference Relationship Map

The following graphic illustrates how each project file type should be referenced relative to other file types for model coordination and drawing production. It is imperative that file reference relationships do not deviate from those shown in the graphic. The swim lanes represent directories within the CADD folder and nodes represent file types.



Graphics Standards

For this project will follow a combination of **LABoE**, **LABSL**, and **LADOT** graphic standards in all areas except Sepulveda Blvd. improvements, which will follow **Caltrans** graphic standards.

LABOE CADD Manual: [BOE CADD Manual 210827.pdf \(lacity.gov\)](#)

LADOT Drafting Standards: [LADOT Drafting Manual \(lacity.gov\)](#)

LABSL Plan Review Resources: [Business Permits: LA Bureau of Street Lighting \(lacity.org\)](#)

Caltrans Plans Preparation Manual: [Plans Preparation Manual, last updated April 14, 2023 \(ca.gov\)](#)

Lineweight

Lineweights are set in the layer definitions. With the use of the STB file these definitions are no longer tied to the color of an object within the DWG. Color be changed for additional clarity within the DWG file without affecting the printed outcome. Unless you are the owner/originator of a base file DO NOT change in the original file. Instead make changes to the Xref within a file.

Typical CTB Color (for reference only)	Line Thickness	Plotted Line Width		Use of Line
		mm	in	
N/A	Extra Fine	0.13	0.005	Fine detail which cannot be accomplished using a "fine" line
1	Fine	0.18	0.007	Material indications, surface marks, hatch lines, patterns.
2	Thin	0.25	0.010	Text < 0.10" Dimension lines, leaders, extension lines, break lines, hidden objects, setback lines, minor contours, minor grid lines, architectural backgrounds, schedule/table grid lines.
3	Medium	0.35	0.014	0.10" ≤ Text < 0.20" Object lines, symbols, minor contours, easements, schedule/table grid accent lines.
4	Wide	0.50	0.020	0.20" ≤ Text < 0.50" Titles, major contours, major grid lines, cross sections, property lines, drawing block borders.
5	Extra Wide	0.70	0.028	Text ≥ 0.50" Match lines, large titles, building footprints, title block borders, sheet borders, schedule/table outlines.
6	XX Wide	1.00	0.039	Major title underlining and separating portions of designs.
7	XXX Wide	1.40	0.055	Right of Way, Border sheet outlines and cover sheet line work.
N/A	XXXX Wide	2.00	0.079	Border sheet outlines and cover sheet line work.

The image below shows an example how the various NCS lineweights are plotted.

NCS Name	Lineweight	Plot Preview	Text Preview
"EXTRA FINE"	0.005" (0.13 mm)	_____	
"FINE"	0.007" (0.18 mm)	_____	
"THIN"	0.010" (0.25 mm)	_____	
"MEDIUM"	0.014" (0.35 mm)	_____	
"WIDE"	0.020" (0.50 mm)	_____	
"EXTRA WIDE"	0.028" (0.70 mm)	_____	
"XX WIDE"	0.039" (1.00 mm)	_____	
"XXX WIDE"	0.055" (1.40 mm)	_____	
"XXXX WIDE"	0.079" (2.00 mm)	_____	

0.08" THIN
0.10" MEDIUM
0.20" WIDE
0.50" X WIDE

Proposed features

Proposed features should use the lineweights presented in the table above. However, in some instances where emphasis on certain features is required, proposed lineweights can be increased or reduced.

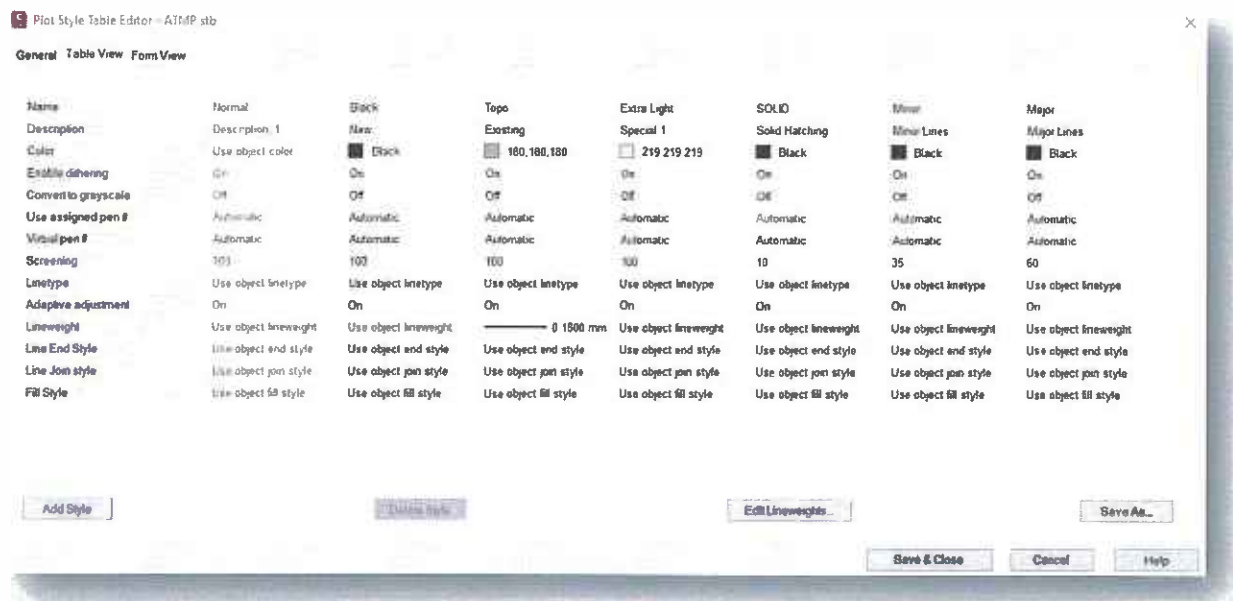
**** Contact the CADD Manager prior to changes to ensure uniformity for the project. ****

Some examples include:

- On a grading sheet, the lineweight of proposed site features could be reduced from the standard "Medium" to "Thin" to emphasize proposed contours and other grading features.
- Select proposed utilities could be reduced from "Medium" to "Thin" to emphasize one proposed utility type on a utility-specific sheet. Additionally, a specific utility could be increased to "Wide" or "Extra Wide" to emphasize.

Screening

Screening is controlled by the Plot Style of the Layer definition. There are seven available styles defined in the STB. Each defining the color and the percent screen of the output.



Color features

Features to be plotted in color will use the "Normal" Plot Style. Line weights as described in the table above.

Proposed features

Proposed features should be printed using the "Black" Plot Style. Line weights as described in the table above.

Existing features

Existing features should be printed using the "Topo" Plot Style. This is a medium screen. Line weights as described in the table above.

Special features

The "Extra Light" and "Solid Hatching" Plot Styles should be used to highlight an area with a fill. These are very light colors and all other Plot Styles will be visible in the fill area.

Minor features

The "Minor Lines" Plot Style should be used for Minor grid lines and Minor contours. It is also used in areas where a light screen is desired, it is lighter than "Topo". Line weights as described in the table above.

Major features

The "Major Lines" Plot Style should be used for Major grid lines and Major contours. It is also used in areas where a dark screen is desired, it is darker than "Topo". Line weights as described in the table above.

Digital & Physical Plotting

All drawings plotted from CAD software should be plotted digitally to full size PDF format. Plan sets shall consist of 22"x34" sheets on the appropriate Project or Caltrans border. If physical plots are desired, full size or half size (11"x17") they should be generated using the PDF files. **** Do not print to 11"x17" PDF files. Do not attempt to produce physical plots directly from CAD software. ****

Use AutoCAD PDF (Smallest file).pc3 for a Printer/plotter and either the ATMP.stb or BW.stb (Caltrans) Plot style table (pen assignment).

6.2.6 Design Model Coordination Process

Model coordination will regularly occur during the design phases of the project. The goals of this coordination are as follows:

- Facilitate interdisciplinary coordination.
- Identify spatial conflicts (i.e. clash detection).
- Review model content for accuracy, LOD progression, and completeness.

Coordination Models

Coordination models are exported as NWC format from the native design file authoring software (e.g. Civil 3D, Revit) and contain clean 3D geometry of the design suitable for viewing in 3D and for spatial coordination and 3D clash detection. Creating these "clean" coordination models is critical so as not to introduce extraneous elements (e.g. construction lines, gridlines, text, 2D linework) into the federated model coordination space. Coordination model exports are saved to the coordination model folder in ACC.

Creating Coordination Models

Autodesk provides a free "Navisworks NWC Export Utility" add-in which enables exporting NWC files directly from various authoring applications. This utility is available for download at the following link:

[Navisworks 3D Viewer | Download Free Navisworks Freedom | Autodesk](#)

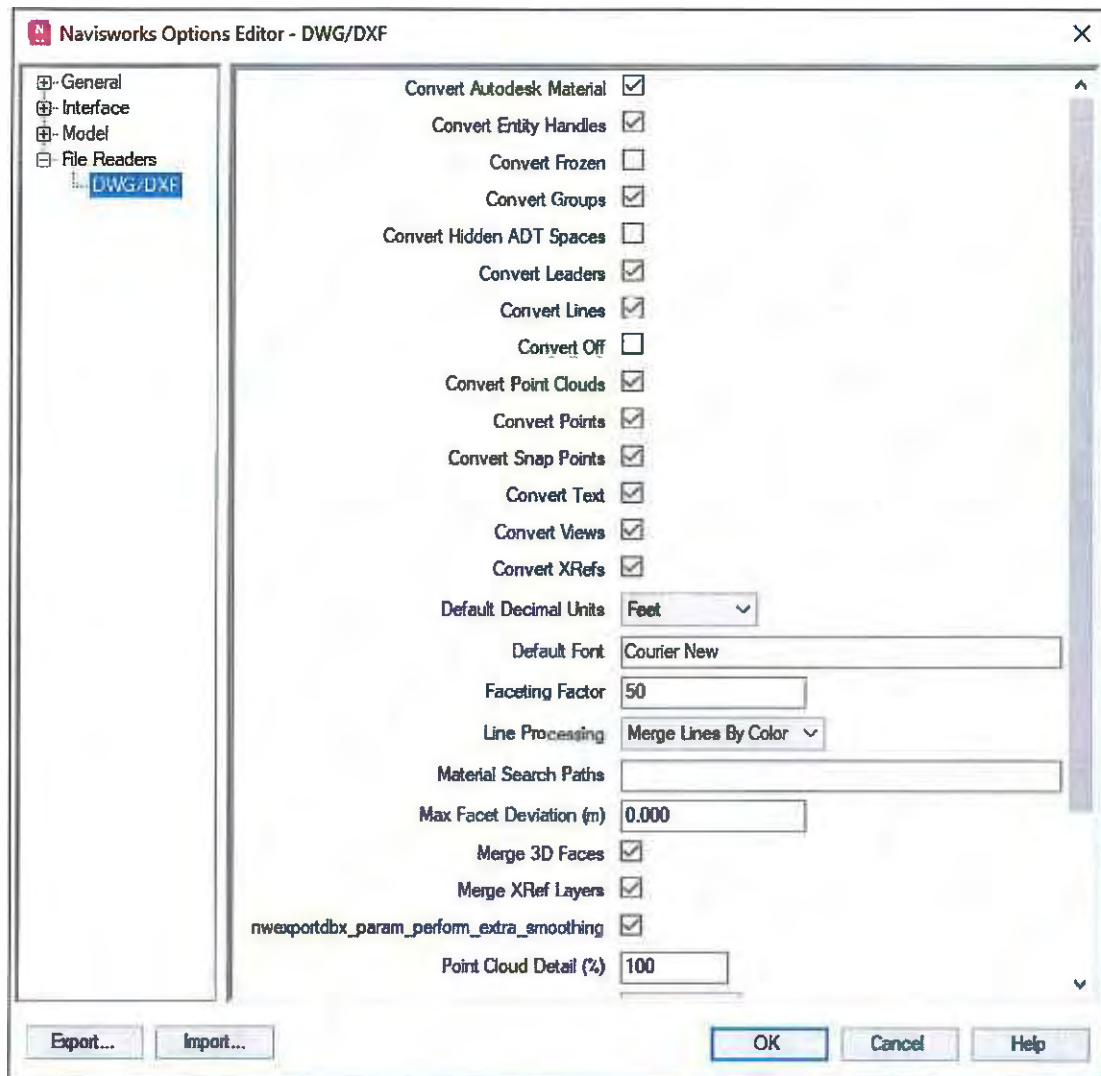
Civil 3D

When creating a coordination model in Civil 3D, care should be taken such that the only 3D elements are included in the NWC export. These include:

- Surfaces
- Alignments with proposed profiles
- Gravity Pipe Networks
- Pressure Pipe Networks
- AutoCAD 3D Solids

Use the [QSELECT](#) and [ISOLATE ELEMENTS](#) commands to filter the elements down to only types shown in the list above are visible, then use the NWCOUT command to create the coordination model export.

Note: Before using the NWCOUT command, use the NWOPT command to set up the export settings. As follows:

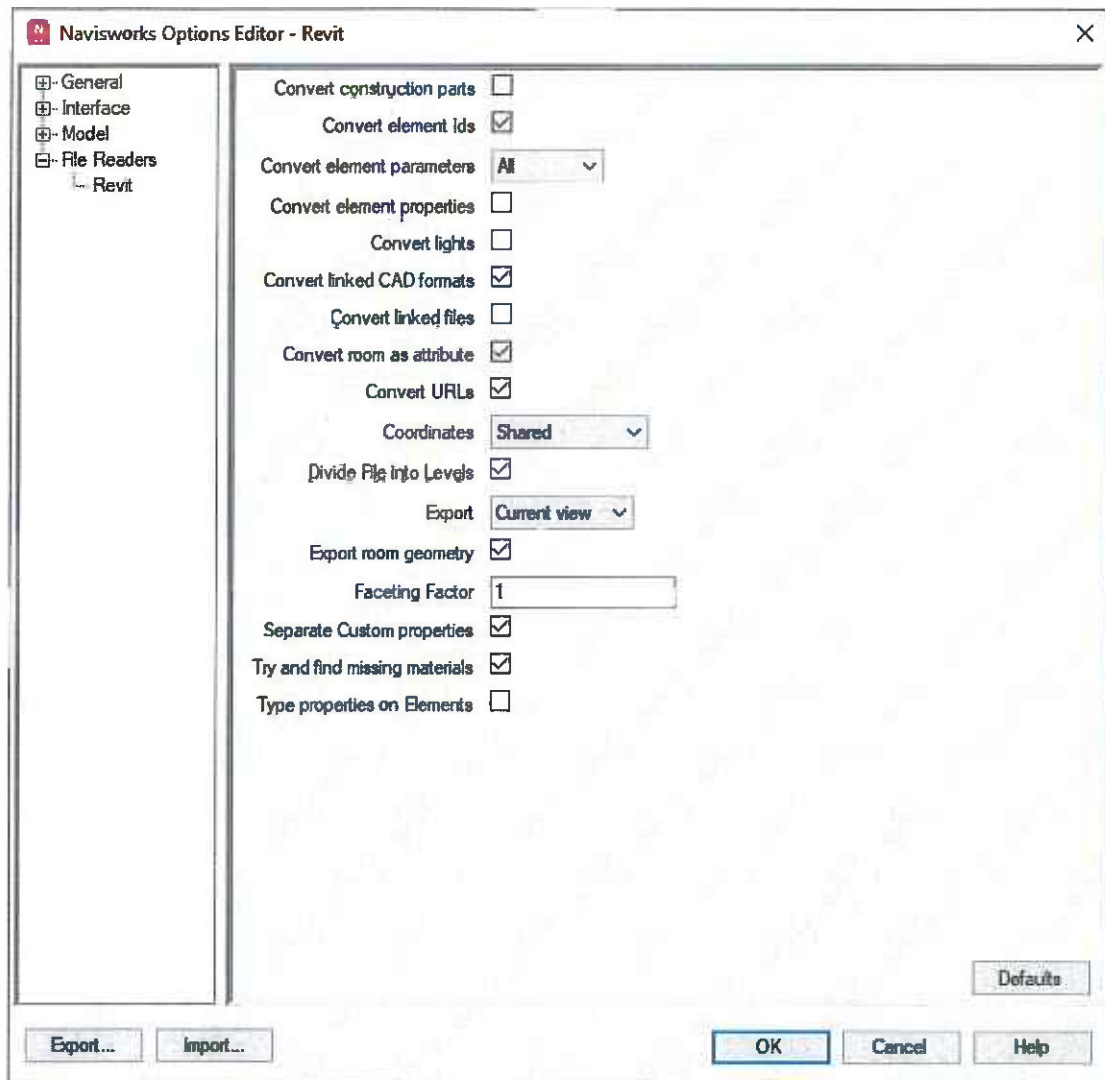


Revit

When creating a coordination model from Revit, follow the guidelines published by Autodesk as the following link:

[Help | Workflow: Using Revit and Navisworks | Autodesk](#)

In Revit, use the following settings for Navisworks exports:



Coordination Model Naming

Coordination models use simple “friendly” names that clearly identify their contents. Existing features are prefixed with “Ex” and proposed models are prefixed with “Pr”. Other models may also be used as reference to provide context, these models are prefixed with “Ref”. General models (e.g. keymaps, right of way, etc.) are prefixed with “Gen”. When multiple design alternatives are being considered, the alternative models use names prefixed with “Alt”. Some examples include:

- Pr Drainage | Proposed Drainage
- Ex Utilities – Water | Existing Utilities Model - Water
- Pr Grading | Proposed Grading Model

Appendix B includes a coordination model matrix with correlates native design files with their respective coordination model “Friendly” names.

Model Coordination in ACC

The model coordination module in ACC has been enabled and configured to provide both an ongoing look at the models both during the development of the design and at major milestone deliverables. ACC Issues are used to identify, and formally track the resolution of all conflicts and coordination issues and form the quality records for the model deliverables. The Model Coordination module in ACC will be the primary tool used to facilitate all design model coordination.

Coordination Spaces

Model coordination in ACC works by designating a particular folder, or several folders, as a "Coordination Space". Models added to these folder(s) are automatically checked for clashes with other models in the folder and made available for viewing and federation in the ACC Model Coordination module.

Ongoing Coordination Space

The ongoing coordination space is used during the entire duration of the design process. When design models are ready for coordination (both during design, and at milestones), they are exported to .NWC format and uploaded (or updated) in the coordination space folder. Automatic clash detection is enabled for the ongoing project coordination space, and several custom views have been created to facilitate reviewing more specific clash cases.

Additional Coordination Spaces

Should the need arise, additional coordination spaces beyond the ongoing coordination space may be created. However, projects in ACC are limited to a maximum of twenty (20) coordination spaces, so creation of new spaces should be considered carefully and approved by the BIM manager.

Conflict Resolution Meetings

Formal conflict resolution meets are scheduled at key points in the design process. These meetings involve all discipline task leads, project management and other key decision makers. During conflict resolution meetings, the ongoing model coordination space is presented by the BIM manager or Deputy BIM Manager, and clashes are checked between each disciplines' models.

ACC Issues

When clashes or other coordination items are identified during the conflict resolution meetings, an ACC Issue is created by the BIM Manager or Deputy BIM Manager. Issues are created as 3D markers and are associated with a specific coordination model. When an issue is created it is tagged with the following information:

- Status ("Open" for new issues)
- Appropriate issue type (Clash, or Coordination)
- Location (Design Unit)
- Comments are added to further explain the issue
- A representative from the discipline in charge of making a change is assigned the issue
- Watchers from other disciplines are also assigned if the issue requires interdisciplinary coordination.

The status of the ACC issue indicates the progression of its resolution. When issues are initially created, they are flagged as "Open". After an issue is resolved, its status is set to "Closed" and the BIM Manager or Deputy BIM manager then verifies that the issue has been addressed. The "Pending" Status is used for issues that require additional information (i.e. Potholes) and is used in cases where issues need to be deferred. At the completion of the IFC stage, all Issues must have their status set to "Closed". See appendix C for more detailed documentation of the ACC issue resolution process.

6.3 Construction Models

Construction Models shall match all requirements of Section 6.0 Modeling Standards, Protocols, & Governing Software. Should any need for deviation be required a formal request shall be submitted to the Construction BIM Manager for approval.

7.0 Modeling Scope, Requirements, Quality Control and Assurance

7.1 Design Models

7.1.2 Accuracy and Tolerances

The completeness of model geometry is a function of the model's LOD. Where the LOD does not dictate that the model be represented as a specific shape, buffer zones should be used to reserve adjacent space. Model geometry should be coordinated so that elements do not overlap or conflict. In designing the model, allowances for construction tolerances should be considered to prevent potential conflicts due to allowable deviations from the plan.

Dimensions displayed on models or CAD drawings must be automatically produced by the modeling or CAD software. These dimensions must not be modified, disassociated or detached. If certain dimensions are not directly displayed, they can be determined by making measurements in the model or CAD drawing. However, when positioning elements during construction, the dimensions explicitly indicated on the Contract Documents must always be prioritized. Using the Design models comes with risks for the builder. It's essential for the builder to ensure the accuracy of dimensions taken from models before building.

7.1.2 Scope and Requirements

Each section below describes the minimum level of detail required in the BIM models at the IFC stage. Model detail will exceed the descriptions below only when necessary to convey design intent. Further model development deemed necessary that was not previously defined will be addressed as identified as required. See also Section 6 and Appendix A for model progression and level of development information.

Existing conditions models will be developed from record drawings and/or through survey data collection by the design team. Existing conditions models will be created by the BIM manager or discipline BIM leads as needed to complete the proposed design and will only include elements directly impacted by the proposed project improvements.

Roadways

- Existing
 - Existing roadways will be modeled using TINN surfaces built from survey data in the form of points and break lines. These surfaces will represent the top of existing roadway surface and surrounding ground.
- Proposed
 - New and reconstructed Roadway models will be created using Civil 3D corridor models which will output the definition required to create a proposed top surface representing the finished grade of the roadway, curbs, gutters, sidewalks and adjacent ground.
 - Roadway baselines will be modeled using Civil 3D Alignments. Proposed profiles will be associated with each alignment.
 - Barriers will be modeled in 3D using Civil 3D corridors.
 - Guardrails will be modeled in 3D using 3D solids

Utilities and Drainage (at grade)

Unless specifically described in another section, the utilities described in this section represent all under or above ground pipes, conduits and/or conductors. This section does not describe utilities and drainage within bridge or other structures.

- Existing
 - Existing surface drainage features including curbs, swales, ditches, open channels and stormwater quality features will be included in the existing ground TINN surface model.
 - Where existing utilities have not been potholed, dipped, or otherwise field verified, they will be modeled with AutoCAD 3D solids which are generated using assumed dimensions and

depths below the existing ground. These utility models will be stored in model files with names prefixed with the letter "R" indicating that they are derived from record information. Record model geometry will be hosted on "R" prefixed layers. If record drawings provide elevations and other specifics for utilities and drainage, they will be modeled using pipe networks with names start with the letter "R-" to indicate that the model was derived from record drawings and assumptions.

- Where existing utilities have been field verified, they will be modeled with Civil 3D Pipe networks. These utility models will be stored in model files with names prefixed with the letter "V" indicating that they are derived from survey information. Field verified utility pipe network names will start with the letter "V" and will be hosted on layers starting with the letter "V".
- Existing overhead utilities will be modeled in 3D using 3D polylines and 3D solids. Existing overhead utilities that are being removed as part of the project will not be modeled.
- Proposed
 - All proposed underground drainage and utilities will be modeled using Civil 3D pipe networks and will include pipe material and diameter information. Proposed pipe network names will begin with "C-" and geometry will be hosted on "C-" prefixed layers.
 - Proposed surface drainage features including curbs, gutters, swales, ditches, open channels and water quality features will be modeled as part of the finished grade top surface
 - Specialized drainage features including, but not limited to, underground detention tanks, trash racks, energy dissipation structures etc. will be modeled with AutoCAD 3D objects.

Structures

- Existing
 - Existing Structures will be modeled in the following instances:
 - They are being modified or retrofitted as part of the project
 - They are being replaced as part of the project (foundations only)
 - They span, or will be spanned by, proposed project features and will remain in-place during construction and after project completion.
 - Existing bridge models will include structure outlines for decks, girders, columns, bent caps, and barriers. Foundations will be modeled by referencing record drawings. Interior diaphragms, voids and shear keys will not be modeled. Pins, post tensioning, reinforcement, embeds, etc. will not be modeled.
 - Existing retaining wall models will capture structure outlines for wall extents. Foundations will be modeled by referencing record drawings. Drains, reinforcement, embeds, etc. will not be modeled.
- Proposed
 - Proposed bridge models will include structure outlines for concrete decks, girders, columns, bent caps, barriers, and foundations Interior diaphragms, voids and shear keys will be modeled. Pins, bearings, post tensioning, reinforcement, embeds, etc. will not be modeled. Chamfers and fillets smaller than 2" will not be modeled.
 - Proposed Retaining wall model will include structure outlines for detailed wall shape, barriers, and foundation. Drains, reinforcement, and embeds will not be modeled.
 - Additional items including but not limited to cable trays, conduits, drainage pipes, camera, ITS equipment shall be modeled as required by the DT for space planning and verification. Only basic size and shape of the components will be modeled. Fasteners, bolt holes and other fabrication details will not be modeled.
 - Penetrations larger than 4" will be modeled.

Landscape Architecture

- Existing
 - Existing Landscape Features including, trees, bushes/shrubs, furniture, sculptures, and water features will be modeled based on survey data as 2D features.
 - Existing landscape grading (mounds, berms, ect.) are included in the existing TINN surface created from survey data.
 - Existing landscape features with foundations that are within the proposed improvement area and are to remain through the duration of the project and post-construction are modeled in 3D.
 - Existing trees that will remain after completion of project that require dedicated root space will be modeled in 3D. The model only needs to include a representation of the required root ball space.
- Proposed
 - Plantings not requiring dedicated root space will be modeled in 2D.
 - Plantings requiring dedicated root space will be modeled in 3D. The model only needs to include a representation of the required root ball space.
 - Features not requiring foundations will be modeled in 2D.
 - Features requiring foundations will be modeled in 3D.
 - Proposed landscape grading will be modeled using TINN surfaces for incorporation into the proposed Site/civil finished ground surface.
 - Proposed irrigation systems will be modeled in 2D except for service connections, which will be modeled in 3D using Civil 3D pipe networks to from the trunk line to the backflow preventer.

Civil/Site

- Existing Site Features
 - Existing site features are modeled using survey data and are represented as 2D symbols in 3D space.
 - Existing site features with foundations that are within the proposed improvement area and are to remain through the duration of the project and post-construction are modeled in 3D.
- Proposed Site Features
 - Features not requiring foundations will be modeled in 2D.
 - Features requiring foundations will be modeled in 3D.
 - An overall combined finished surface TINN will be modeled that includes all proposed grading for roadways, site/civil improvements, landscaping, ect.

Signage, Striping, Traffic Signals, ITS and Lighting

- Existing
 - Existing above ground traffic features are modeled using survey data and are represented as 2D symbols in 3D space.
 - Existing above ground traffic features with foundations that are within the proposed improvement area and will remain in-place both during construction and after project completion are modeled in 3D.
- Proposed
 - Above ground traffic features not requiring foundations are modeled in 2D.
 - Above ground traffic features requiring foundations are modeled in 3D. Including:
 - Signs
 - Light Poles
 - Traffic Signals

- Underground traffic signal control wiring, conduits and associated handholes and pull boxes are modeled in 2D.
- At-grade fiber optic communication lines for traffic and ITS equipment will be modeled using Civil 3D pipe networks. Fiber optic cables located on or within bridge or wall structures will not be modeled.
- Specialized equipment including but not limited to cameras, sensors, conduits ect. shall be modeled as required by the DT for space planning and verification. Only basic size and shape of the components will be modeled. Fasteners, bolt holes, and other fabrication details will not be modeled.

7.1.3 BIM Quality Strategy

Project BIM models will undergo quality control and assurance for both data integrity and design coordination. Data integrity checks will verify that project BIM models have been prepared in accordance with project standards, are used directly in the production of contract documents, and are at the appropriate LOD. Design coordination checks will be performed in addition to traditional contract drawing reviews and will focus on spatial coordination of existing and proposed features. BIM quality processes will not be used in the verification of technical performance and/or adherence to design criteria.

7.1.4 Model Quality Control and Assurance

BIM Data Check

Throughout the design process, Discipline BIM leads will continually monitor BIM models for progress, accuracy, model errors, and BIM standards compliance. These checks should occur regularly as part of the model development process. If the DBL isn't actively working in the BIM model, they should perform this check as a separate task on a weekly basis.

Prior to each design milestone submittal, project BIM data will undergo a formal data check to verify that the BIM model meets the project requirements, is the basis for the contract drawings, and meets the LOD indicated in the progression matrix. Each discipline must review their respective BIM models and will submit a completed BIM data verification checklist (Appendix C) with their models at delivery. This process is managed by the discipline BIM leads for their respective discipline BIM models, and the by BIM manager overall.

Spatial Coordination

BIM models will also be reviewed on an ongoing and milestone basis to verify that the proposed design has been checked for spatial conflicts. Ongoing spatial conflict reviews need not be documented. At milestone submittals a formal model checking process is completed, per the documentation in (Appendix C).

7.2 Construction Models

7.2.1 Accuracy and Tolerances

Construction Models shall match all requirements of Section 7.1.2 above. Should any need for deviation be required a formal request shall be submitted to the Construction BIM Manager for approval.

7.2.2 Scope and Requirements

Construction Models shall, at a minimum, match all requirements of Section 7.2.2 above and in addition all essential details presented on shop drawings shall be included in these models.

Any deviation must be formally requested and approved by the Construction BIM Manager.

7.2.3 BIM Quality Strategy

Construction Models shall match all requirements of Section 7.1.3 above.

7.2.4 Model Quality Control and Assurance

BIM Data Check and Spatial Coordination

Discipline models will be reviewed per specific areas (TBD) and only when all disciplines are complete. This review will check for accuracy, model errors, and BIM standards compliance as well as spatial conflicts. These checks will be documented and must occur prior to shop drawing submittal and will occur as often as required to ensure model compliance. Shop drawings will not be submitted until all compliance and spatial coordination issues are resolved.

Appendices

Appendix A – Level of Development (LOD) Matrix

Appendix B – Coordination Model Matrix

Appendix C – Spatial Conflict Resolution Process

Appendix D – BIM Data Verification Checklist

Appendix A – Level of Development (LOD) Matrix

[illegible]

[illegible]

19 of 30

Appendix B – Coordination Model Matrix

ATMP ACC MODEL COORDINATION MATRIX			
MODEL	SOURCE FILES		
	1	2	3
Ex APM Guideway	By others		
Ex Bridges (demo)	V-BR-M-DEMO.dwg		
Ex Bridges (to remain)	V-BR-M.dwg		
Ex Building - CCTA APM Station	By Others		
Ex Building - ECTA APM Station	By Others		
Ex Building - EITF APM Station	By Others		
Ex Building - WCTA APM Station	By Others		
Ex Building - WITF APM Station	By Others		
Ex Buildings	By Others		
Ex Ground	V-TP-M.dwg		
Ex Retaining Walls	RSRW-M.dwg		
Ex RPZ (6R)	By Others		
Ex Signage	VTSN-M.dwg		
Ex Traffic Signals	CTTS-M.dwg		
Ex Util - Communications	RUCM-M.dwg	VUCM-M.dwg	
Ex Util - Electrical	RUEL-M.dwg	VUEL-M.dwg	
Ex Util - Fuel	RUFU-M.dwg	VUFU-M.dwg	
Ex Util - Gas	RUNG-M.dwg	VUNG-M.dwg	
Ex Util - Potholes	VUPH-M.dwg		
Ex Util - Sanitary Sewer	RUSS-M.dwg	VUSS-M.dwg	
Ex Util - Storm Records	RUSD-M.dwg		
Ex Util - Storm Survey	VUSD-M.dwg		
Ex Util - Water	RUWT-M.dwg	VUWT-M.dwg	
Gen Plan Sheet Keymap	G-KM-R		
Pr Barriers	CIBA-M.dwg		
Pr Bridge - 96th St Ped	S-BR-M-96th.dwg		
Pr Bridge - A	S-BR-M-A.dwg		
Pr Bridge - D1	S-BR-M-D1.dwg		
Pr Bridge - D2	S-BR-M-D2.dwg		
Pr Bridge - G	S-BR-M-G.dwg		
Pr Bridge - I	S-BR-M-I.dwg		
Pr Bridge - K	S-BR-M-K.dwg		
Pr Bridge - M	S-BR-M-M.dwg		
Pr Bridge - L	S-BR-M-L.dwg		
Pr Bridge - P	S-BR-M-P.dwg		
Pr Bridge - Sep Ped	A-BR-M.rvt		
Pr Bridge - Sep Ped - MEP	M-BR-M-SEP.rvt		
Pr Bridge - Sep Ped - STRC	S-BR-M-SEP.rvt		
Pr Building - C0	By Others		
Pr Fencing - AOA	G-AOA-M.dwg		
Pr Grading - CO	By Others		
Pr Grading - TWDE	By Others		
Pr Grading	C-TP-M.dwg		
Pr ITS	RETS-M.dwg		
Pr Lights	CTLT-M.dwg		
Pr Pavement - Z1	CTRD-M-Z1.dwg		
Pr Pavement - Z2	CTRD-M-Z2.dwg		
Pr Pavement - Z3	CTRD-M-Z3.dwg		
Pr Pavement - Z4	CTRD-M-Z4.dwg		
Pr Signage	CTSN-M.dwg		
Pr Storm - Lid	CUSD-M-LID.dwg		
Pr Storm	CUSD-M.dwg		
Pr Traffic Signals	CTTS-M.dwg		
Pr Util - Communications	CUCM-M.dwg		
Pr Util - Electrical	CUEL-M.dwg		

Pr Util - Fuel	CUFU-M.dwg		
Pr Util - Gas	CUNG-M.dwg		
Pr Util - Water	CUWT-M.dwg		
Pr Walls - Z1	S-RW-M-Z1.dwg		
Pr Walls - Z2	S-RW-M-Z2.dwg		
Pr Walls - Z3	S-RW-M-Z3.dwg		
Pr Walls - Z4	S-RW-M-Z4.dwg		

Appendix C – Spatial Conflict Resolution Process

Appendix C – Spatial Conflict Resolution Process

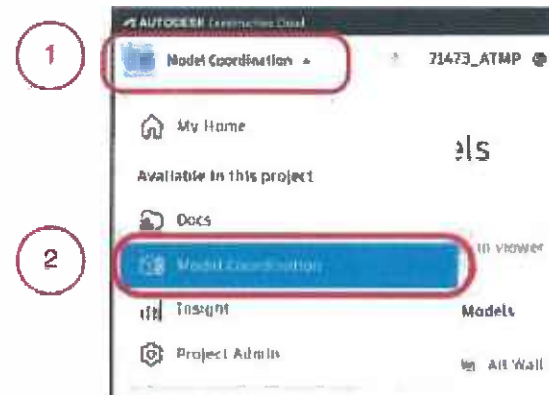
1.0 Purpose

To promote the effective use of Building Information Modeling (BIM) in the project, the Design Build BIM management team has created this BIM Model Quality Check (QC) Process Visual Aid. This aid is intended to supplement the standard QC Process and provide details on how the BIM QC Process will be implemented utilizing the tools found in Autodesk Construction Cloud (ACC).

The core objective of this BIM QC process is to identify and resolve spatial coordination issues and clashes among the different disciplines of the Project.

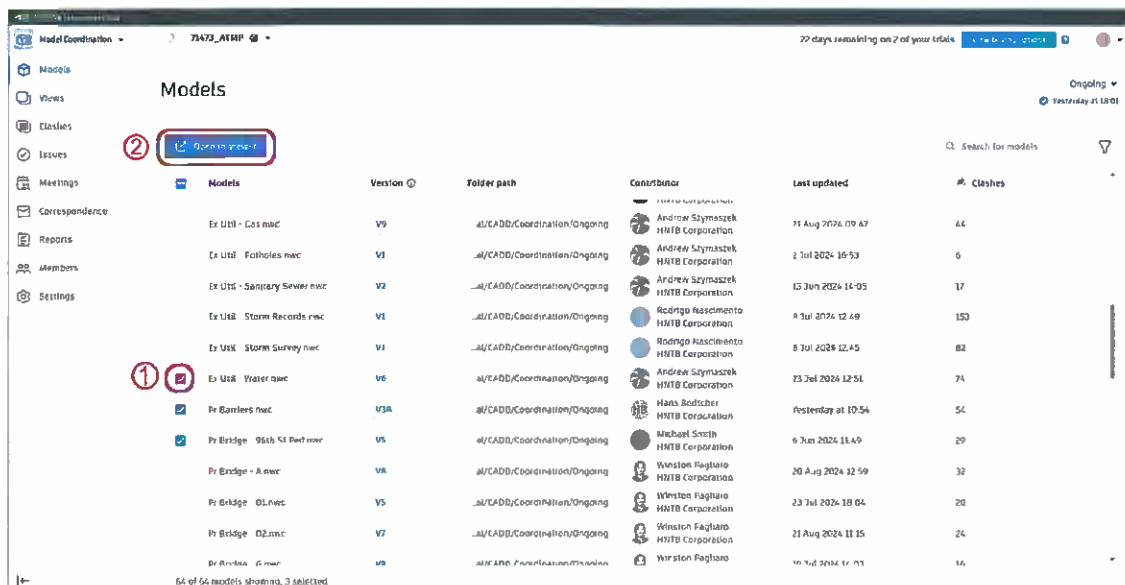
1.1 Model Coordination

This process begins with the models uploaded to ACC from the different disciplines. To access this, enter the drop-down window at the top left of the ACC webpage and select Model Coordination.



1.1.1 Viewing Models

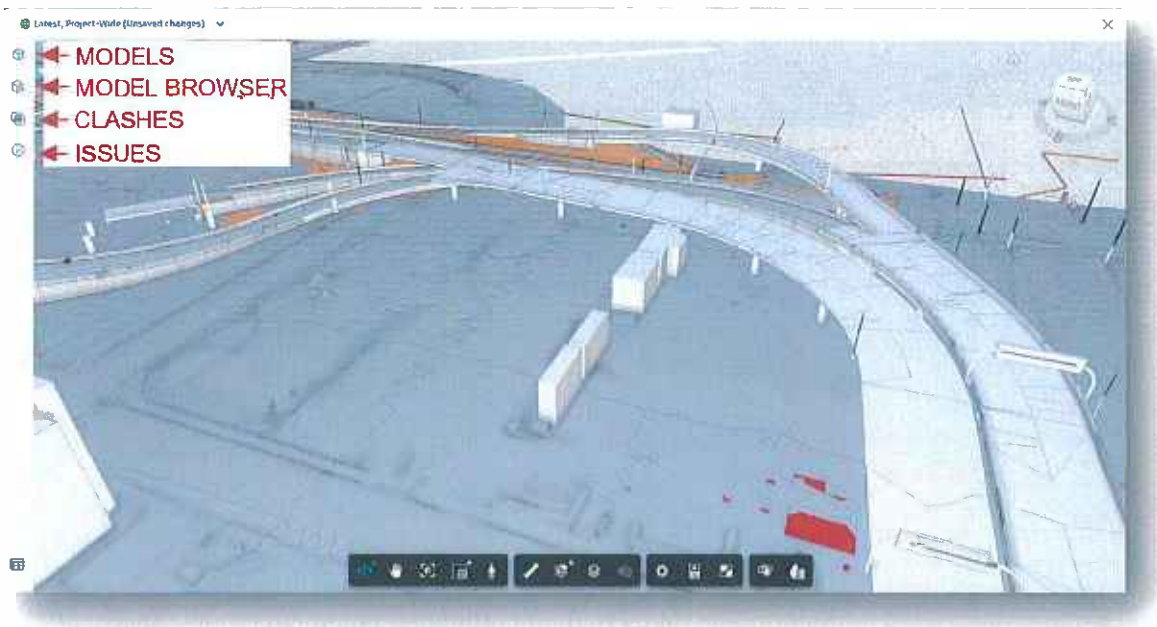
Inside the Model Coordination window, select the models you wish to see by clicking on the checkbox to the left of the Model name. Then select [Open in Viewer] near the top of the page.



After clicking [Open in Viewer], all selected models will load into a 3D Space together. In this view you can rotate, select, hide, and navigate the 3D space to see how everything works together. Navigation tools can be found on the bottom of the screen.

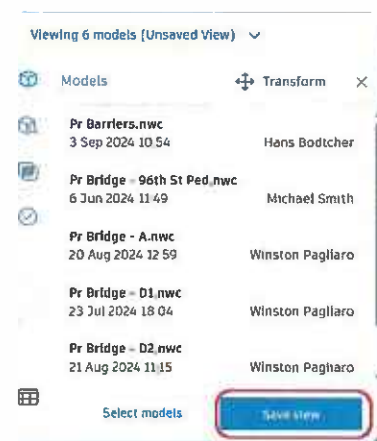
The ribbon on the left side of the screen contains 4 informational menus:

- **Models** – Displays a list of all selected and loaded models.
- **Model Browser** – Allows you to filter which models are currently being shown.
- **Clashes** – Allows you to select any loaded model and will highlight any clashes with other selected models. Clashes can then be assigned as Issues or Non-Issues.
- **Issues** – Displays clashes that have been marked as issues along with their current status and any design information assigned to it.



1.1.2 Saved Views

Instead of needing to reselect each model individually as described in Section 1.1.1, ACC allows you to save your current view with all loaded models for easy access in future sessions. To do this, while in the 3D Space open the Models Menu on the left side of the screen. At the bottom of the menu, click the [Save View] button. This will store your current 3D Space in the Views Menu in the Model Coordination space of ACC. Note; this saved view will appear in the Views Menu for all team members, not only the creator.



2. Clashes and Issues

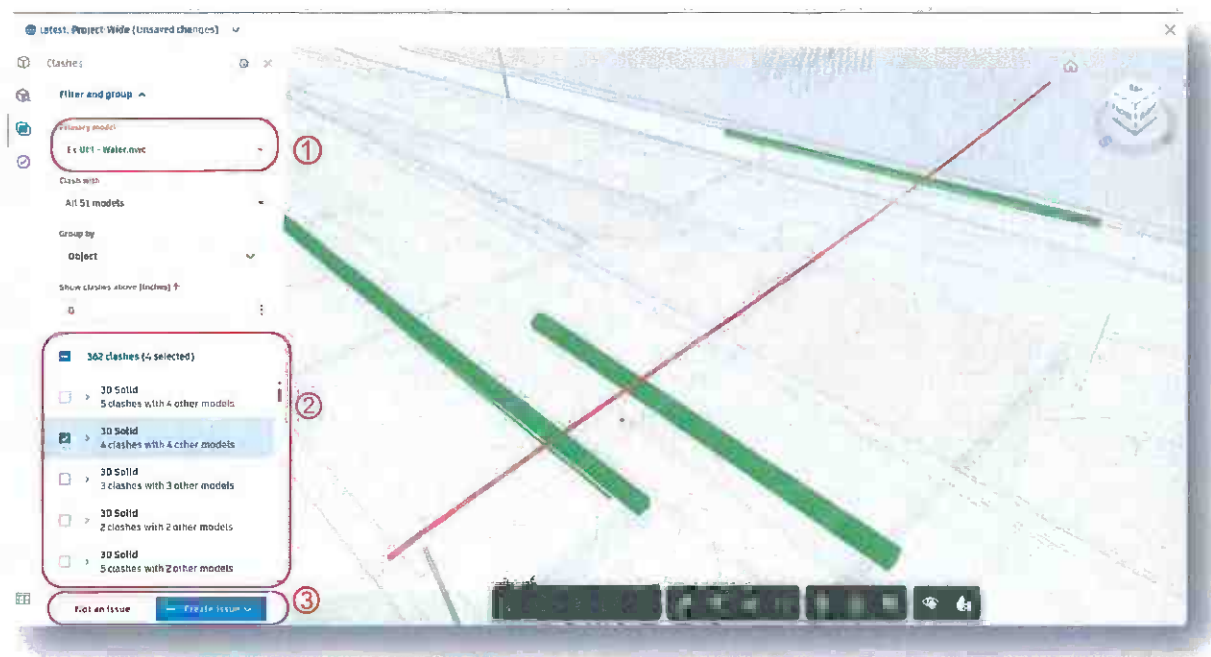
2.0 Clashes

When multiple disciplines are coming together in a small area there is likely to be accidental collisions. This is one of the areas that BIM & VDC shines, it allows us to identify and coordinate a solution between disciplines before issues are discovered on-site, saving time and costs.

To locate possible clashes, select the [Clashes] menu in the location detailed in Section 1.1.1. Inside this menu you will first select a **Primary Model** to compare with other models in the project coordination. After selecting your **Primary Model**, you will see any clashes displayed in the lower part of this menu. Selecting one of these clashes will move your 3D Space view close to the issue area.

- Primary Model object(s) will be highlighted in **Green**.
- Clashing model object(s) will be highlighted in **Red**.
- All other model objects will display transparent grey.

After identifying the clash, use the bottom buttons to either designate it as a non-issue. Or to mark it as an issue and assign it a type from the list that appears.



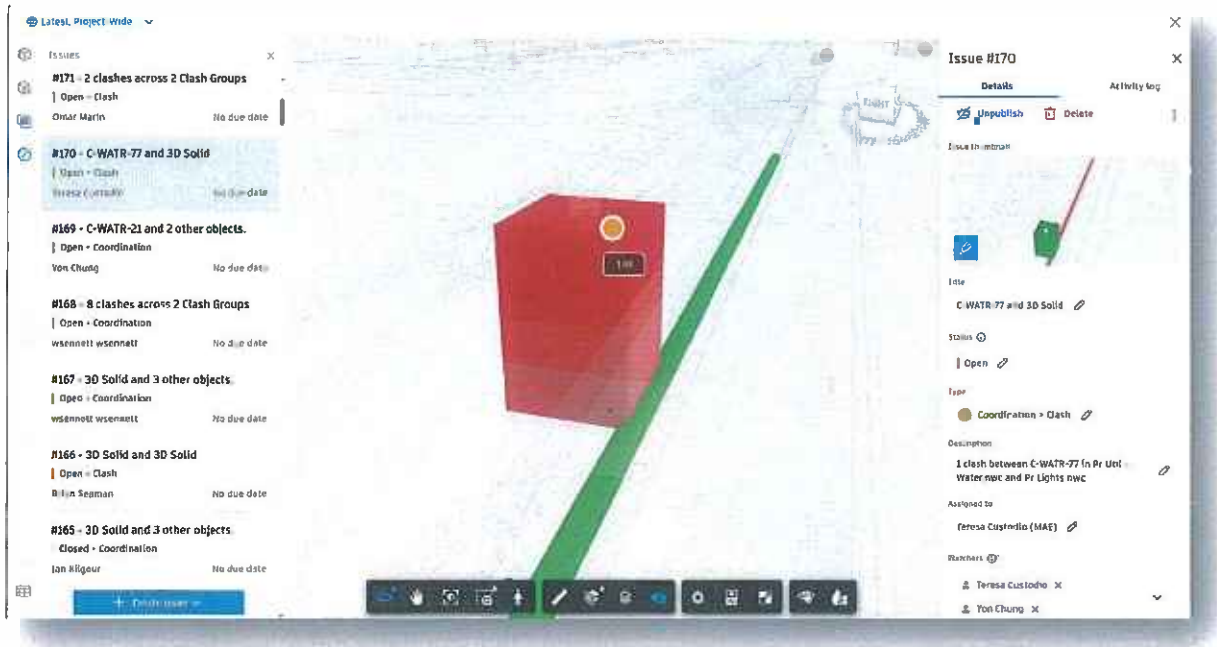
2.1 Issues

When an issue is created, it will appear in the Issues menu and be assigned a unique number. All Issues will display in the menu on the left side of the screen. Selecting an Issue will adjust the 3D view to display

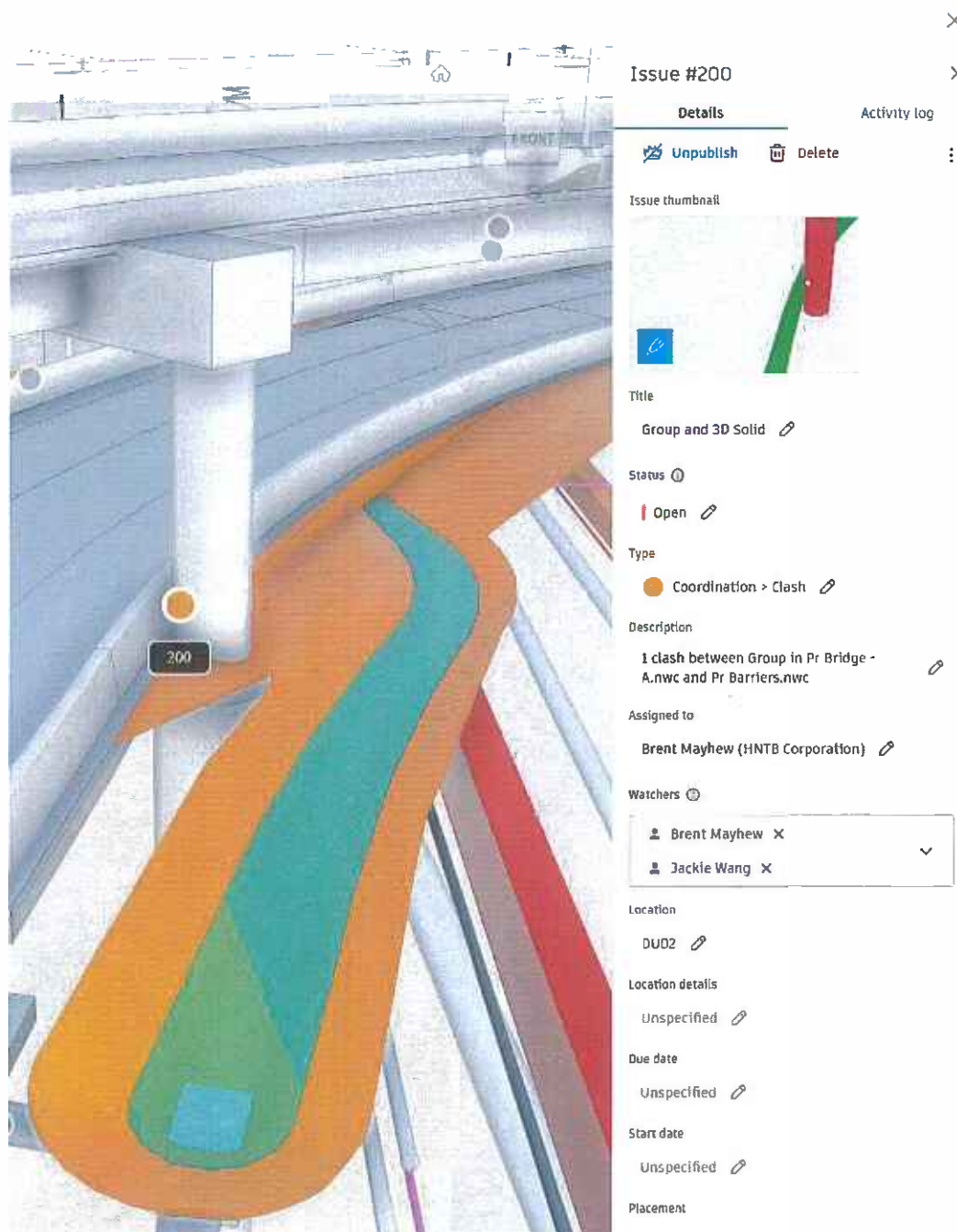
the issue along with opening a details panel on the right side of the screen. The details panel will display information relevant to this issue. Beginning with a thumbnail image from when the issue was created, the current status, and a description.

In the Details panel team members can be assigned issues to designate who is responsible for its resolution. Additionally, team members that should be aware of the issue, but are not expected to contribute to its resolution, should be added as Watchers.

Further down in the Details panel, you can add additional information such as; location, due date, a field for comments, files, and/or images that are relevant to this issue.



Issues View in Model Coordination



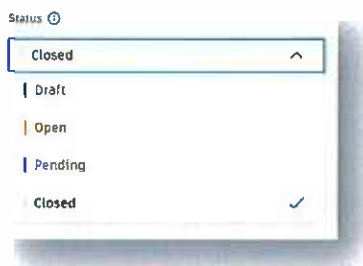
Issues Detail Panel

Description of Issue Types

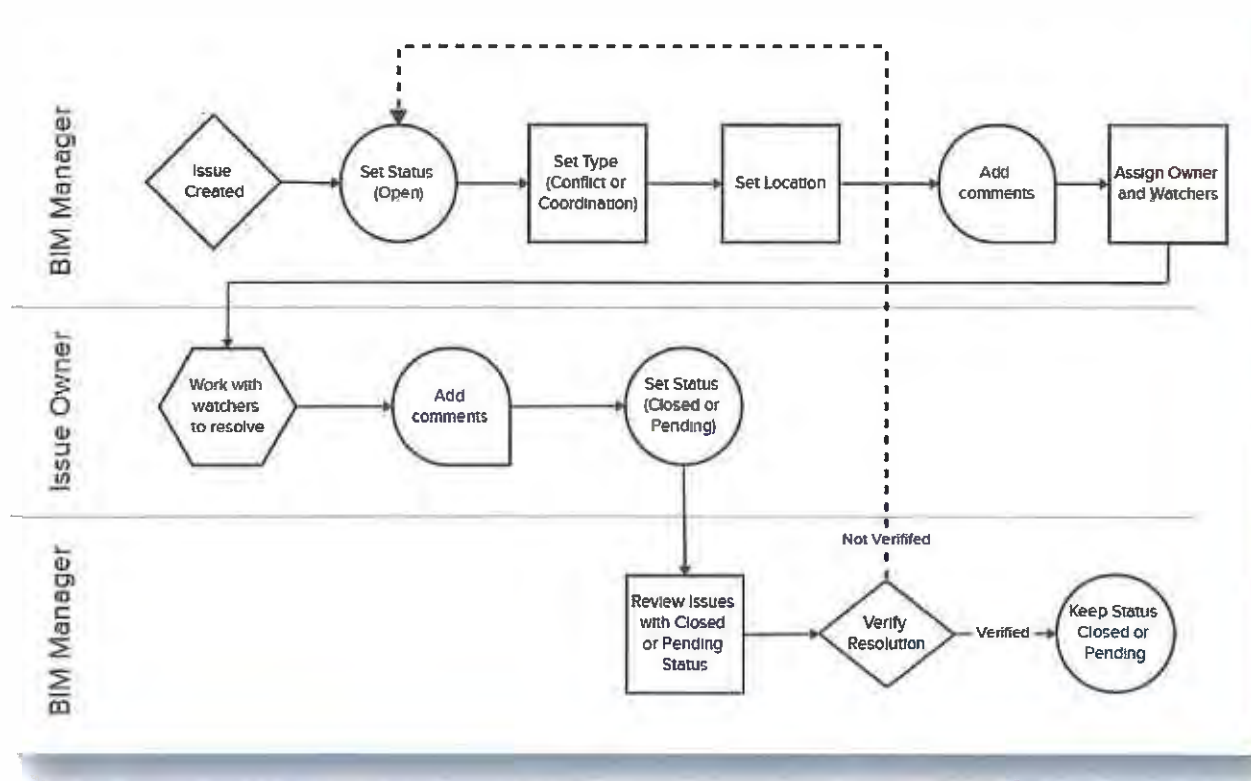
- **Coordination > Clash** – Used when two elements directly intersect with each other, or when two objects do not meet minimum clearance criteria.
- **Coordination > Coordination** – Used when additional coordination is required between models. For example, the top of wall elevation does not match the bridge abutment.

Descriptions of Issue Status:

- **Draft** – Possible issue that may need attention.
- **Open** – Issue that needs to be or are in the process of being resolved.
- **Pending** – Reserved for issues that are unable to be addressed at this time. Either due to lack of information, outside the current scope, etc... This is used when issues need to be deferred for future resolution
- **Closed** – Issue has been resolved.



The following flowchart demonstrates the issue resolution process



Appendix D – BIM Data Verification Checklist

Completed by:	
Discipline:	

HNTB

[illegible]

Appendix 14 – Risk Management Plan



Risk Management Plan (PR-01)

SKANSKA | FLATIRON

Contents

Risk Management Plan	3
1 Overview	3
2 Responsibilities.....	3
3 Insurance and Claim Management	3
4 Risk Register.....	3
5 Action Plans.....	4
6 Project Risks	4
Appendix A – Risk Register.....	6

Risk Management Plan

1 Overview

As part of SFJV's management approach, we will develop and apply an expanded Risk Management Manual modeled after the International Tunnel Insurance Group's "Code of Risk Management for Tunnel Works". The objective of the SFJV Risk Management Manual is to provide an instructional reference on how to identify and mitigate risks associated with design, construction, and commissioning.

The overall performance and payment concern of LAWA will be addressed by providing Performance and Payment Bonds. SFJV recommends to LAWA that insurance coverage be managed through either an Owner Controlled Insurance Program (OCIP) or Contractor Controlled Insurance Program (CCIP) as LAWA chooses. All other risks will be identified on a Risk Register and will be further addressed with specific action plans to mitigate the risk.

2 Responsibilities

SFJV has assigned a Risk Manager to identify all risks on the project, organize a Risk Register and develop action plans to mitigate those risks. The Risk Manager reports directly to the Project Manager. The Risk Manager, Project Manager and/or Construction Manager will designate responsibilities to specific risk register items as appropriate.

3 Insurance and Claim Management

If elected by LAWA, SFJV will provide insurance coverage and manage the insurance program through an SFJV Contractor Controlled Insurance Program (CCIP). This program will be expertly organized and managed through Skanska's insurance broker AON. AON's CCIP Manager will report directly to SFJV Risk Manager.

4 Risk Register.

SFJV and LAWA jointly developed a Risk Register early in Phase 1 which we will continue to be developed and maintained throughout the Project duration. The Risk Register clearly identifies Risk scenarios, their potential cause, and potential consequences, allowing for the analysis of the likelihood of occurrence if unmitigated, potential cost impact, and potential schedule impact. Furthermore, the Risk Register documents the action plan's mitigating measures to minimize/eliminate Risk of occurrence and who's the responsible party. The latest risk register is included in appendix A

5 Action Plans

SFJV will develop action plans for specific Risk scenarios as identified in the Risk Register. These action plans will detail the specific Risk, consider all potential consequences of these and provide an examination of possible mitigating measures to minimize/eliminate the risk of occurrence and then implement the best solution to minimize/eliminate that risk of occurrence.

6 Project Risks

SFJV identified the following 22 most likely to occur Risks from the Risk Register as developed to date. The full register is included in Appendix A

ID #	Risk Description/Summary	ID #	Risk Description/Summary
1	AHJs commenting/not accepting Basis of Design and number of AHJ design review iterations could result in late start and finish of Schematic Design phase and delay in progression of design iterations and issuance of permits	27	In cases where overhead lines are intended to remain protected-in-place, they shall be considered in the logistics (crane picks, etc)
2	AHJ challenge in to review individual drainage reports of the ATMP projects without a master hydrology map of flows. This has ties to the entire Program and not just ATMP roadways.	2	The 4'x8' RCB along Century Blvd will be in conflict with proposed structures and will require relocation
3	AHJ challenge in approving traffic indices which will be driving Pavement Design.	32	With the changes in the roadway geometry, the proposed striping for lane transitions may extend outside of the project limits as the striping transitions.
	Traffic throughputs during construction could degrade the level of service, resulting in an increase in number and timing of construction phases/traffic switches and diminished user experience	33	LAWA employs Monotube Cantilevered Sign Structure, as outlined in LADOT's Redbook, for overhead signage differing from Caltrans's Tubular variety. Non-Caltrans standard LAWA Overhead Signage will drive up the cost for specialty fabrication and it will require extensive coordination.
8	Insufficient craft labor resources could result in longer durations to complete schedule activities	34	On Sepulveda, coordination between LADOT Spec and Caltrans Spec regarding the removal and disposal of thermoplastic striping will be required. Caltrans considers existing thermoplastic striping as hazardous material which requires disposal in a specific manner.
11	Existing Utility information not robust or inaccurate data requires a relocation that impedes progress of new facilities	39	Potential for additional Wayfinding locations are added outside of the ATMP project limit

14	Delays in ROW and TCE acquisition, or eviction of Tenants from LAWA property needed for construction could delay the project	47	Failure to achieve Contract Milestones may result in liquidated damages. Specific milestones, listed in GC46, creating this risk are Schedule Deliverables 1a and 1b, Milestone 2, GMP at 60% construction documents, and Milestone 5, Final Completion by June 30, 2028
15	Utility relocations required to be performed by the utility owners, either because they are in franchise right, or that is the standard practice (i.e. SoCalGas) could result in delays to the project	51	There could be a delay in design advancement due to a delay in the selection of architectural treatments for the entire Program by Cultural Affairs & Arts group.
16	We anticipate the risk of pricing volatility and lead-time for materials and industry contracting to be high due to geopolitical tensions, the unknown trajectory of the pandemic, and increased demand from multiple major projects leading up to the Olympics	TBD	The magnitude of this project will require large areas adjacent to the work zones for equipment access, staging of materials, craft employee parking, and logistics facilities. Currently there are not adequate areas designated for site access and logistics. Restricted work areas will decrease efficiency/productivity, and increase cost/durations.
18	Construction activities may cause hazards to pedestrians and bicyclists in the area	TBD	Shared construction work zones between separate Contracts, i.e. Terminal 9, will cause potential for interface impacts.
20	There is a high likelihood of encountering contaminated or hazardous materials on site, and the exact type and quantity have not yet been fully identified. This could present both cost and schedule challenges to the project if encountered.	TBD	Shared construction work zones between separate Contracts, i.e. Concourse 0 will cause potential for interface impacts.

Appendix A – Risk Register

RISK REGISTER				Project Name:	Airfield and Terminal Modernization Program - Roadway Improvement Project (ATMP)										Quantitative Risk Analysis									
Risk Identification				Risk Description					Probability			Cost Impacts - Current Total			Total Time Impact (Non-Critical days)			Critical Path Delays						
Status	Location	Risk Type (Level 1)	Risk Type (Level 2)	Title	Risk Description/Summary	Planned Mitigation and Actions (LAWA)	Risk Manager	Assumptions	Low	High	Average	Low (Cost)	Most Likely (Cost)	High (Cost)	Probable (Cost)	Low (Days)	Most Likely (Days)	High (Days)	Probable (Days)	Is the delay deemed as the critical path?	Bully Rate @95% Conf			
Closed		Design	Requirement	ALL Approvals For BOB	ALL construction activities requiring Review of Design and Construction Documents must be approved by the Airfield and Terminal Modernization Program (ATMP) before construction begins.	Set-up engineering meetings with ATMP to review design documents and construction documents. Obtain approval from ATMP and Project Specific Design Control (PSDC) before construction begins.	LAWA (TBC)	Phase 1 - 1.5m MB, 50% subject to lane closures, 32% gel released = 220000m @ 1100kph @ 120m increase in direct manours 3.60m schedule delay	0%	0%	0%													
Active		Permitting	ABOE	ATMP Drainage Design Approval	ATMP challenge in to review individual drainage reports of the ATMP projects without a master hydrology map of area. This has ties to the entire Program and not just ATMP roadways.	Develop a master hydrology map. SFJV will support with project specific information, but we have to determine the "What" and "Where" of the task.	LAWA (TBC)	ATMP involvement may be required Phase 1 50m direct cost to prepare hydrology report \$24m for 6 months, schedule delay	80%	80%	80%	\$ 13,050,000	\$ 15,500,000	\$ 17,000,000	\$ 9,300,000	164	163	304	170					
Closed		Permitting	LAWA	ATMP Review of Design Approval	ATMP challenge in to review individual drainage reports of the ATMP projects without a master hydrology map of area. This has ties to the entire Program and not just ATMP roadways.	Set-up engineering meetings with ATMP to review design documents and construction documents. Obtain approval from ATMP and Project Specific Design Control (PSDC) before construction begins.	LAWA (TBC)	ATMP involvement may be required Phase 1 50m direct cost to prepare hydrology report \$24m for 6 months, schedule delay	0%	0%	0%													
Closed		Permitting	ABOE	ATMP Review of Design Approval	ATMP challenge in to review individual drainage reports of the ATMP projects without a master hydrology map of area. This has ties to the entire Program and not just ATMP roadways.	Set-up engineering meetings with ATMP to review design documents and construction documents. Obtain approval from ATMP and Project Specific Design Control (PSDC) before construction begins.	LAWA (TBC)	LAWA has agreed with BOE to provide 70.10 260kph and the will be in estimate as now																
Active		Construction	Performance and Reliability	Degraded Traffic Level of Service	Traffic throughput during construction could degrade the level of service, resulting in an increase in number and timing of construction phase/traffic events and decreased user experience.	Minimize lane closures where possible. Coordinate with LAWA for closure during special events, outreach efforts for lane closures.	SFJV (C-4015 H)	Phase 2 1.5m MB, 50% subject to lane closures, 32% gel released = 220000m @ 1100kph @ 120m increase in direct manours 3.60m schedule delay	80%	80%	80%	\$ 8,800,000	\$ 92,800,000	\$ 68,200,000	\$ 24,000,000									
Active		External	COVID-19	Pandemic Restrictions	New COVID-19 variants require on-located LAWA office to close.	Conduct virtual meetings for project coordination. Use PPE to attend in-person meetings and follow social distancing protocols if in-person meetings are needed. SFJV to follow Federal/State/Local Guidelines.	LAWA (TBC)	6 month with 10% inefficiency Phase 1 \$2.4m Phase 2 10% inefficiency for Staff = 1 10% 30% 20% Craft labor inefficiency = \$150		10%	20%	\$ 27,300,000	\$ 30,400,000	\$ 33,440,000	\$ 8,000,000									
Active		Construction	Performance and Reliability	More than Anticipated Restrictive Lane Closure hrs	More than anticipated restrictive lane closure hours as dictated by 3rd Party, AHU (Caterpillar, LADOT, etc.) and LAWA could result in lower productivity than planned.	ATMP buy-in from the jurisdictions and implement accordingly.	SFJV (TBC)	Phase 2 1.5m MB, 50% subject to lane closures, 32% gel released = 220000m @ 1100kph @ 120m increase in direct manours 3.60m schedule delay	30%	70%	80%	\$ 88,800,000	\$ 92,800,000	\$ 68,200,000	\$ 24,000,000									
Active		Construction	Labor Issues	Insufficient Craft Labor Resources	Insufficient craft labor resources could result in longer duration to complete schedule activities.	SFJV will monitor labor conditions, work with unions to expand local hire pool. Potential to offer no-bid scale pay to attract additional workers.	SFJV (TBC)	63hr above scale for all craft 1.5m MB, last \$1m carried in SFJV estimate	20%	80%	50%	\$ 1,150,000	\$ 3,500,000	\$ 1,650,000	\$ 1,700,000									
Active		Construction	Existing Conditions	Offering Site Conditions/Clearing	Geology and buried obstacles create more difficult foundation installation conditions than expected.	Perform adequate borings for geotechnical investigations. Use deep foundation systems where in-situ pile is anticipated. Contractor to notify the owner or owner's field representatives immediately upon discovery and obtain approval to proceed with removals.	SFJV (TBC)	110 shafts @20% chance of obstruction = 22 holes at min. \$200k per shaft at 6m per hole = 6.6m Add-on @ 1m per shaft = 1.1m	30%	40%	30%	\$ 48,300,000	\$ 99,400,000	\$ 55,440,000	\$ 10,100,000									
Active		Utilities	Service Interruptions	Displaced Utility Service Interruptions	Utility activities require shutdown of utilities that affect user experience, operations, and/or emergency services.	CWP's to provide a step-by-step and a checklist on how to verify, abandon, relocate or protect-in-place existing utilities. Plan to outline prerequisite activities including but not limited to utility survey, site party notifications, field verification, permit start, and etc. CWP to also provide an action plan including a list of hot lines (emergency contact numbers) for all utility companies when a strike happens.	SFJV (TBC)	Vertical cable fiber, 3.5m/day 10.0% 8 days to repair = \$12m/min. \$30m consequential damages	50%	50%	50%	\$ 37,800,000	\$ 43,000,000	\$ 46,200,000	\$ 21,000,000									
Active		Utilities	Relocation	Existing Utility Conflicts with Proposed Work	Existing utility information not robust or inaccurate leads requires a relocation that impedes progress of new facilities.	Proactively locate utilities (through electronic detection/spot testing). Contractor to notify the owner immediately upon discovery and commence the dialogue with utility companies.	SFJV (TBC)	Phase 2 16 Unknown relocations @ 12.5m per each, 3 inches TBC	30%	80%	80%	\$ 87,730,000	\$ 97,300,000	\$ 107,250,000	\$ 48,700,000									

RISK REGISTER				Project Name:	Airfield and Terminal Modernization Program - Roadway Improvement Project (ATMP)					Quantitative Risk Analysis												
Risk Identification				Risk Description					Probability			Cost Impacts - Current Total			Total Time Impact (Non-Critical days)				Critical Path Delays			
Status	Location	Risk Type (Level 1)	Risk Type (Level 2)	Title	Risk Description/Summary	Planned Mitigation and Actions (LAWA)	Risk Manager	Assumptions	Low	High	Average	Low (Cost)	Most Likely (Cost)	High (Cost)	Probable (Cost)	Low (Days)	Most Likely (Days)	High (Days)	Probable (Days)	If the delay occurred on the critical path?	Daily Rate (\$/hour)	
Active		Interface	Internal-TB	Schedule Conflict with T3	The CTA outbound departure movements to Baguette and EB Century are on the critical path based on the current phasing plan we have developed. Delays to access required to build these movements could result in increased duration	Facilitate communication with T3 design team to confirm that access will be provided to avoid delays and optimize plans.	LAWA / SFJV (TBD)	Aggregate 5 month delay	26%	45%	36%	\$ 16,890,000	\$ 20,000,000	\$ 22,600,000	\$ 4,000,000							
Active		Construction	Logistics	Part 77 Surface Penetration	Improper preconstruction planning leads to construction equipment penetrating Part 77 Surfaces	Meet with FAA early to discuss and identify any issues through the 7450 permit process as identified in Part 77	SFJV (TBD)		0%	0%	0%	\$ -	\$ -	\$ -	\$ -							
Active		ROW	Acquisition	ROW and TCE Acquisition	Delays in ROW and TCE acquisition, or violation of Tenants from LAWA property needed for construction could delay the project	During preconstruction process SFJV to work with LAWA to identify needed takes/TCEs and develop schedule for timeframes needed for acquisition Extensive coordination with LAWA to complete acquisitions on time. Conduct comprehensive appraisals to account for market conditions to avoid delays in negotiations.	LAWA (TBD)	4 acquisitions Phase 1 \$2.5m/property for eminent domain process Phase 2 3 month delay @ \$4m/month, resequencing/acceleration caused inefficiencies plug \$5m	60%	60%	70%	\$ 24,319,000	\$ 27,000,000	\$ 29,750,000	\$ 18,900,000							
Active		Utilities	Relocation	2nd Party Utility Relocation	Utility relocations required to be performed by the utility owners, either because they are in franchise right, or that is the standard practice (i.e. local laws) could result in delays to the project. Delays may also result from late arrival and/or longer duration to complete the work.	To start the dialogue with the utility companies promptly upon identifying relocations during design. LAWA to apply pressure to encourage cooperation from the 3rd parties. Complete utility agreements prior to construction and meet with utility owners to make sure they understand the construction schedule.	LAWA / SFJV (TBD)	4 month critical path delay	60%	60%	60%	\$ 14,400,000	\$ 18,000,000	\$ 17,600,000	\$ 9,000,000							
Active		Procurement	Market Conditions	Material and Industry Pricing Escalation	We anticipate the risk of pricing volatility and lead-time for materials and industry contracting to be high due to geopolitical tensions, the unknown trajectory of the pandemic, and increased demand from multiple major projects leading up to the Olympics	SFJV will work with LAWA during preconstruction to identify major cost drivers and develop strategies to mitigate escalations LAWA to evaluate if there is any advantage to securing any materials for a separate purchase prior to advance of construction. Should bid long lead items with mitigation plans (e.g. long-lead items).	SFJV (TBD)	3% escalation per year for 4 years on \$1.2b 325*1.35*325*1.03*225 = 1.03*325*1.03*4	60%	100%	80%	\$ 6,422,224	\$ 100,466,138	\$ 110,516,032	\$ 80,375,311							
Active		Construction	Performance and Reliability	Twelve Incident	Work performed under traffic closures increases the likelihood of traffic incidents, that impact public safety and can potentially delay the job due to loss of life of work.	Contractor to obtain concurrence from LADOT and set up traffic closures in accordance with the approved plans. Contractor to QC the closure and take pictures for documentation. Use proactive protection and flaggers where necessary. Plan for emergency response team to be stationed close to the construction site to minimize this risk.	SFJV (TBD)	3 incidents/year, 4 years, average 1 day delay per incident = 20 days @ 11m/day	15%	10%	10%	\$ 3,400,000	\$ 4,500,000	\$ 4,400,000	\$ 400,000							
Active		Construction	Safety	Pedestrian Impacts	Construction activities may cause hazards to pedestrians and bicyclists in the area	Contractor to obtain concurrence from LADOT and set up traffic closures in accordance with the approved plans. Contractor to QC the closure and take pictures for documentation. Implement flaggers where necessary. Provide ADA compliant ramp detour routes where needed.	SFJV (TBD)	3 additional flaggers for 2 years @ \$80/H	60%	60%	60%	\$ 2,396,160	\$ 2,852,400	\$ 2,826,840	\$ 1,597,440							
Active		Construction	Safety	Demolition	Structure demolition operations that will be required to remove existing elements pose major falling and flying object hazards	Implement mitigations including but not limited to construction fence and aerials, nets, scaffolds, etc. Request for closure of sidewalks, traffic control and other public areas where hazard is present. Plan for night time full closure of roadways during demolition to minimize risk if possible.	SFJV (TBD)	3 deductibles @ \$50k each	20%	60%	30%	\$ 800,000	\$ 1,000,000	\$ 1,180,000	\$ 380,000							
Active		Construction	Allowance	Contaminated/hazardous Materials	There is a high likelihood of encountering contaminated or hazardous materials on site, and the exact type and quantity/extent yet to be fully identified. This could present both cost and schedule challenges to the project if encountered.	Perform Site Investigations (SI). Follow up with AIA's to accelerate SI reviews. SFJV will do best effort during site investigations to identify only hazardous materials, notify LAWA (for most cases) with exception to facilities such as Hazardous, etc.	LAWA (TBD)	200 yds per shaft, 10 shafts with hazardous materials \$1000/yd premium paid off of hazardous material additional handling/transport = \$750/yd	40%	100%	70%	\$ 1,150,000	\$ 3,500,000	\$ 3,650,000	\$ 2,450,000							
Active		Construction	Quality	DBE Satisfactory Performance	The likelihood of unsatisfactory performance by the DBEs due to their limited resources and/or experience cannot be disregarded.	Hire DBE firms with demonstrated expertise in performing similar work.	SFJV (TBD)	3 subcontractors @ \$2m premium each	0%	0%	0%	\$ 5,400,000	\$ 6,000,000	\$ 6,800,000	\$ -							
Active		Construction	Requirement	7460 Restriction	High aircraft restrictions may be imposed by FAA/LAWA in respect to maximum vertical clearance resulting in loss of production and efficiency	Coordinate with LAWA/FAA in advance to figure out requirements during construction.	SFJV (TBD)		0%	0%	0%	\$ -	\$ -	\$ -	\$ -							
Active		Utilities	Abandonment/Removal	DWP Water 477 Service Zone Elevation Line	The old line is to be decommissioned. However, if SFJV is asked to abandon or relocate the line there is a high possibility of encountering asbestos.	Plan to utility as-built for more information and verify with DWP/V. Be prepared to obtain environmental permits and to employ a specialized subcontractor to handle the waste. Coordinate with DWP to confirm that the old line can be abandoned.	SFJV (TBD)	\$2m Plug for Asbestos removal	10%	40%	25%	\$ 1,800,000	\$ 2,800,000	\$ 2,700,000	\$ 500,000							

RISK REGISTER				Project Name:	Airfield and Terminal Modernization Program - Roadway Improvement Project (A7MP)				Quantitative Risk Analysis																
Risk Identification				Risk Description					Probability			Cost Impacts - Current Total				RDW/DI		Total Time Impact (Non-Critical days)				RDW/DI		Critical Path Delay	
Status	Location	Risk Type (Level 1)	Risk Type (Level 2)	Title	Risk Description/Summary	Planned Mitigation and Actions (LAWA)	Risk Manager	Assumptions	Low	High	Average	Low (Cost)	Most Likely (Cost)	High (Cost)	Probable (Cost)	Low (Days)	Most Likely (Days)	High (Days)	Probable (Days)	Is this delay deemed on the critical path?	Daily Rate (\$/2000/shift)				
Active		Construction	Logistics	COS (central Outfall Sewer)	The COS trunk line holds vital importance for LASOE. While it might not result in a relocation due to direct conflict with proposed structures, safeguarding measures might be necessary during construction. The passage of cranes and heavy equipment, especially in shoulder areas, could call for engineered protection plans.	Obtain more information on the subjected line (condition, base, material, depth, etc.) and identify areas where heavy construction loads or activities may pose a risk. Coordinate with LASOE on protection requirements. Provide information on surcharge to see if protection is necessary.	SFJV (TBD)		6%	6%	3%	\$ -	\$ -	\$ -	\$ -										
Active		Construction	Logistics	43rd East Airport Sewer Line	30+ years old. May require protection if not planned to be relocated or replaced.	The team should proactively seek to identify such conflict early on during the design phase and plan accordingly. Early dialogue with LASOE is highly encouraged.	SFJV (TBD)		0%	3%	3%	\$ -	\$ -	\$ -	\$ -										
Active		Utilities	Relocation	Fuel Lines	There is a nest of fuel lines in NB Sepulveda and within Century Blvd. Provisions need to be made to relocate, abandon or protect-in-place.	Team to identify criteria for removal or relocation of active and inactive fuel lines. Permit, specialty work, duration and other relevant efforts to be identified. Engage in early conversations with utility companies, CALM, SCC and other LAWA department. Platinate to confirm location of the oil lines. Coordinate with Caltrans/Utility owner to determine if lines can be protected in place if they don't meet the 10' clearance requirement from proposed foundations.	SFJV (TBD)	515k plug cost for relocation and temp bypass	0%	20%	10%	\$ 3,500,000	\$ 15,000,000	\$ -	\$ 16,500,000	\$ 1,500,000									
Active		Construction	Logistics	Overhead Power Lines	In cases where overhead lines are intended to remain protected-in-place, they shall be considered in the logistics (crane paths, etc.)	The team should proactively seek to identify such issues early on during the logistics and phasing efforts following the design. Obtain construction clearances requirements (disturbance-free) from utility owners. Coordinate with utility owners if the power line needs to be de-energized for a short period of time during construction activities like pile driving.	SFJV (TBD)		80%	80%	70%	\$ -	\$ -	\$ -	\$ -										
Active		Utilities	Conflict	Reinforced Concrete Storm Drain Box	The RCB along Century Blvd will be in conflict with proposed structures and will require relocation.	Avoid RCB by designing around the structure. Provide sufficient clearance.	SFJV (TBD)	Project will impact RCB work will be priced in estimate. SFJV work in roadside impacts. Run field until estimate defines scope of work.	100%	100%	100%	\$ -	\$ -	\$ -	\$ -										
Active		Utilities	Conflict	42nd Sanitary Sewer	The 42nd SS along Vicksburg Ave and across Century Blvd is in conflict and may require to be relocated.	Avoid SS line by designing around the line. Provide sufficient clearance.	SFJV (TBD)	Roadsign to move straddle band to avoid sewer line. 50k plug	80%	80%	60%	\$ 4,500,000	\$ 5,000,000	\$ -	\$ 5,500,000	\$ 2,000,000									
Active		Utilities	Conflict	48th LADWP Water Trunkline	The 48th trunkline that runs into 54th along Sepulveda at 18th street is in conflict and may require relocation.	Avoid 48th trunk line by designing around the line. Provide sufficient clearance. Review Caltrans requirements for 100' setback from utility to structures.	SFJV (TBD)	Low probability is conflict due to columns for pedestrian bridge. SFJV design to avoid the water line.	10%	16%	21%	\$ -	\$ -	\$ -	\$ -										
Active		Design	Settlements	Expanded Scope by BOE	Any changes made to any part of an intersection that is under LASOE's jurisdiction will require full upgrade of the entire intersection to current DOT Standard and Design Guideline. Some principle may apply for BOE utilities. Partial relocation or repairs of affected utilities typically calls for a greater scope of work (i.e. you take out a segment of a RCB or VCP SS line you will have to chase it all the way to upstream and downstream manholes).	Coordinate with BOE, as design progresses, on relocation of affected utilities. Inform LAWA on any increased scope items. Review DOT design criteria for temporary works.	SFJV (TBD)	Reopen century to the 40th (+747/53P), then at from jersey to balance (+726/67P) @ 377,280P	80%	78%	63%	\$ 25,194,330	\$ 27,893,790	\$ -	\$ 30,793,070	\$ 17,000,000									
Active		Design	Settlements	Striping	With the changes in the roadway geometry, the proposed striping for lane transitions may extend outside of the project limits as the striping transitions.	Coordinate with AMU's (BOE) on the striping requirements.	SFJV (TBD)	Plug	90%	99%	76%	\$ 450,000	\$ 500,000	\$ -	\$ 550,000	\$ 375,000									
Active		Contractual	Financing/Procure	Signage - Entry Signs	LAWA employs Monocolor Conventional Sign Structures, as outlined in LADOT's Handbook, for overhead signage deriving from Caltrans' Tubular Signage. Non-Caltrans standard LAWA Overhead Signage will drive up the cost for specialty fabrication and it will require extensive coordination.	Coordinate with Caltrans for sign structure standards on Sepulveda Blvd entry. Provide cost differential for LAWA's heavier and potentially procure early to mitigate any schedule issues.	LAWA (TBD)	40% premium on signs \$11.02m from POC Estimate	90%	100%	80%	\$ 4,114,880	\$ 4,571,280	\$ -	\$ 5,028,320	\$ 3,000,000									
Active		Construction	Material Handling	Striping - Thermoplastic	On Sepulveda, coordination between LADOT Spec and Caltrans Spec regarding the removal and disposal of thermoplastic striping will be required. Caltrans considers existing thermoplastic striping as hazardous material which requires disposal in a specific manner.	Use Caltrans Specs for thermoplastic striping disposal. Get LADOT confirmation. LAWA may need to obtain and provide contractor with necessary disposal manifest. Contractor to dispose properly. Review LADOT and Caltrans specs and determine requirement for treatment.	LAWA (TBD)	Determine requirement for treatment, which will be priced into estimate.	90%	100%	80%	\$ -	\$ -	\$ -	\$ -										

RISK REGISTER				Project Name:	Airfield and Terminal Modernization Program - Roadway Improvement Project (ATMP)								Quantitative Risk Analysis															
Risk Identification				Risk Description								Probability			Cost Impact - Current Total				IDN/21		Total Time Impact (Non-Critical days)				IDN/21		Critical Path Delays	
Status	Location	Risk Type (Level 1)	Risk Type (Level 2)	Title	Risk Description/Summary	Planned Mitigation and Actions (LAWA)	Risk Manager	Assumptions	Low	High	Average	Low (Cost)	Med Likely (Cost)	High (Cost)	Probable (Cost)	Low (Days)	Med Likely (Days)	High (Days)	Probable (Days)	Is the delay deemed on the critical path?	Daily Rate (\$/Day/2021)							
Active		Contractual	Financing/Financial	Traffic Signal Existing Equipment	There is a potential requirement that may be imposed by the LADOT to replace/upgrade existing signal equipment.	SFJV/WHITS will perform survey of right of way intersections within project footprint. SFJV will support LAWA as needed for intersections required from LAMP that have not been modernized.	SFJV / LAWA (TBC)	8 Intersections, 32.5m/intersection	80%	50%	80%	\$ 18,000,000	\$ 25,000,000	\$ 22,000,000	\$ 18,000,000													
Closed		Permitting	LADOT	Street Lighting Approval-Level	Proposed street lighting requires level approval of LADOT, which will increase cost of the package.	SFJV/LAWA to identify review for street lighting, push to have LAWA lighting stay within LAWA approved and manageable.					RD/VDI	\$ -	\$ -	\$ -	\$ -													
Active		Design	Setbacks	Street Lighting - BSL High Voltage	BSL High Voltage (Bates circle) (Field Inspector) may direct to upgrade a service that was not required by Design/Permitted Package.	LAWA/SFJV to coordinate with BSL to get circuit diagrams for existing lighting.	SFJV (TBC)	plug 32.5m	50%	50%	50%	\$ 2,250,000	\$ 2,500,000	\$ 2,750,000	\$ 2,250,000													
Active		Permitting	LADCA	Street Lighting - CTA Architectural	LAWA may decide to use CTA Architectural standards that may require additional coordination with structures on the barriers and lighting. (possible since it will be an ASD's Approved equipment list or Carvens Standards.	Coordinate architectural requirements with all AHJ's prior to construction. LAWA/SFJV to coordinate in determining if Cultural Affairs review is necessary. If so involve them early in final design.	LAWA (TBC)	LAWA to make determination on lighting type to be used. Cost to be included in estimate.	50%	50%	50%	\$ -	\$ -	\$ -	\$ -													
Active		Interface	Internal-Wayfinding	LAWA Office Wayfinding	Potential for additional Wayfinding locations are added outside of the ATMP project limit.	Coordinate with LAWA for potential change orders during construction. Roadways team will coordinate with LAWA Wayfinding Team to identify any potential additional needs.	LAWA (TBC)	Double existing estimate for signage.	80%	80%	78%	\$ 11,128,400	\$ 12,348,800	\$ 12,822,800	\$ 9,376,800													
Active		Interface	Internal-CD	CD Coordination	Schedule and Construction coordination between concurrent project through design and construction.	Continue frequent coordination with the CD team to avoid conflicts.	SFJV (TBC)	Eliminate need for delay design.	10%	30%	20%	\$ 1,688,000	\$ 1,200,000	\$ 1,230,000	\$ 940,000													
Active		Construction	Logistics	ADA Buffer Zone	May not be able to meet the 10' buffer zone (ADA requirement) along SB Separation/CD between the edge of the existing roadway and existing retaining wall.	LAWA to explore if waiver from TSA or other governing agency for the 10' buffer zone is needed. Coordination being driven by LAWA / CD Team / DME Team.	LAWA (TBC)	Work to obtain variance or exception.	10%	20%	18%	\$ -	\$ -	\$ -	\$ -													
Active		Construction	Schedule Impact	FPA 2028 / Olympic 2028	Potential Schedule Impact to the construction.	Create construction schedule assuming some downtime in 2028 and 2028.		3 month delay @ 4-m/mo, 2 remobilizations @ 5-m each.	2%	8%	0%	\$ 18,000,000	\$ 30,000,000	\$ 22,000,000	\$ -													
Active		Environmental	Schedule Impact	EIR Impacts	Changes made during design development could trigger amendments or revamp of EIR.	Evaluate changes and coordinate with AHJ's to confirm requirements for revamp. Start the process as soon as possible.		\$2.5m for revamp, assume no schedule impact.	8%	8%	0%	\$ 2,350,000	\$ 2,500,000	\$ 2,750,000	\$ -													
Active		Design	Requirement	Project Specific Design Criteria for LAWA Airport Access Roadways	There is currently no established, clear classification of LAWA Airport Access Roadways and relevant project specific design criteria to support the basic configuration of the BOD roadway geometry.	This is a significant, high priority, early risk. This needs action and monitoring separate from the broad, general AHJ Participation Risk item above. Mitigation needed is continued prioritization of establishing PSDCs for LAWA Airport Access Roadway Classification. Recurring meetings needed with COLA planning, DPM (BOD) unit expectations are clear and documented.	LAWA (TBC)	Redesign from 50% submittal required to 30% of phase 1 and 2 (2'130m) 12 month delay @ 5m/mo				\$ 70,280,000	\$ 78,000,888	\$ 85,800,000	\$ 1,580,000													
Active		Construction	Labor Issues	Labor Strikes	Labor strikes are becoming more common. Current Construction Trade union agreements for Carpenters and Laborers is set to expire in July 2025. These construction trades will comprise a majority of the ATMP craft workforce. Current agreements provide for annual increases in wages and benefits up through that expiration date. If an agreement could be reached a strike is probable. Upon eventual resolution of disputes the ATMP project could sustain impacts including several months of delay and labor rate increases above and beyond anticipated escalations.	Include contingency in both Cost and Schedule for potential impact/delay. Review PJA between LAWA and unions for no-strike clause.	LAWA (TBC)	3 month schedule delay @ 5m/mo	1%	10%	0%	\$ 1,888,000	\$ 12,000,000	\$ 13,200,000	\$ -													
Active		Procurement	Market Conditions	Material Storage	Shortage of key materials (cement, flyash, reinforcing steel, Falcovon steel, lumber, asphalt) etc. could cause delays while finding and implementing alternative sources or substitution with alternative materials.	Establish task group to monitor future market availability and plan work arounds. Also include contingency to cover the risk.	SFJV (TBC)	Material = 11" x 18", 5% additional beyond estimate on 50% of materials.	35%	70%	50%	\$ 7,425,000	\$ 8,250,000	\$ 6,675,000	\$ 4,125,000													
Active		Contractual	Financing/Financial	Liquidated Damages	Failure to achieve Contract Milestones may result in liquidated damages. Specific milestones, listed in CCAL, creating this risk are Schedule Deliverables 1e and 1b, Milestone 2, CMF at 50% construction documents, and Milestone 8, Final Completion by June 30, 2028.	A. Identify the Contract Milestones to reflect the dates in the preliminary schedule. B. Prioritize the program for assessed LD's as a cost of the project. C. Implement immediate coordination efforts for both Procurement and Construction to achieve current Contract Milestones.	LAWA (TBC)	SFJV to submit 30% design and then discuss next steps.	80%	100%	75%	\$ -	\$ -	\$ -	\$ -													

RISK REGISTER				Project Name:	Airfield and Terminal Modernization Program - Roadway Improvement Project (ATMP)				Quantitative Risk Analysis														
Risk Identification				Risk Description					Probability			Cost Impacts - Current Total			#DIV/0!	Total Time Impact (Non-Critical days)			#DIV/0!	Critical Path Delays			
Status	Location	Risk Type (Level 1)	Risk Type (Level 2)	Title	Risk Description/Summary	Planned Mitigation and Actions (LAWA)	Risk Manager	Assumptions	Low	High	Average	Low (Cost)	Most Likely (Cost)	High (Cost)	Probable (Cost)	Low (Days)	Most Likely (Days)	High (Days)	Probable (Days)	Is the delay deemed on the critical path?	Delay Rate (G/GN/RSell)		
Active		Design	Belongments	Repulsive Corridor Belongments - Caltrans	Caltrans may require betterments as condition of approval. Enhancements for safe pedestrian and bicycle access is a specific area of concern in the EIR.	Early and frequent engagement with Caltrans	LAWA (TBD)	Repave Saginaw/eggs White paving 1-340(SF) @ 130000	10%	25%	15%	\$ 87,146,000	\$ 74,600,000	\$ 82,850,000	\$ 11,180,000					0			
Active		Design	Third Party	Repulsive Corridor Lane Reductions - Caltrans	Caltrans may not accept lane reductions that would affect design advancement and Concourse G.	Conduct traffic analysis. Continue coordination with Caltrans	LAWA / SFJV (TBD)	6 month delay @ 16month	25%	25%	25%	\$ 21,808,000	\$ 34,000,000	\$ 28,400,000	\$ 8,000,000					0			
Active		Interface	Internal-TWV D.E	Taseway G&E Coordination	Schedule and Construction coordination between concurrent project through design and construction.	Continue frequent coordination with the Taseway G&E team to avoid conflicts.	SFJV (TBD)	5 month delay @ 6month	15%	30%	20%	\$ 18,900,000	\$ 30,000,000	\$ 22,900,000	\$ 4,000,000					0			
Active		Design	Aesthetics	Material Type Selection by Owner	There could be a delay in design advancement due to a delay in the selection of architectural treatments for the entire Program by Cultural Affairs & Arts group.	Engage with LAWA decision makers on architectural treatments.	LAWA (TBD)	3 month delay @ 6month	30%	75%	53%	\$ 10,900,000	\$ 12,000,000	\$ 13,500,000	\$ 3,000,000					0			
Active		Permitting	Caltrans	Caltrans Project Approval	There could be a delay in Caltrans approval of project report that could cause delay to design advancement. Co-Op review to be developed and agreed to before approval.	Develop co-op between LAWA and Caltrans.	LAWA (TBD)	Risk added - Schedule risk	5%	5%	0%	\$ -	\$ -	\$ -	\$ -					0			
Active		Construction	Logistics	Completed Project Site	The magnitude of this project will require large areas adjacent to the work zones for equipment storage, staging of materials, and employee parking, and logistics facilities. Currently there is no site adjacent to the work zones for site access and logistics. Selected work areas will decrease efficiency of construction, and increase construction costs.	Work with LAWA departments and other ATMP Program Projects to not isolate nearby, adjacent areas for staging and logistics.	LAWA	8300m of bridges, 20% efficiency due to other trucking	85%	85%	70%	\$ 54,300,000	\$ 60,000,000	\$ 66,000,000	\$ 42,000,000					0			
Active		Interface	Internal-TD	Interface Impacts	Shared construction work zones between opposite Concourse, i.e. Terminal B, will cause potential for interface impacts.	Interdependent, high level interaction for coordination of critical activities.	LAWA		60%	60%	70%	\$ -	\$ -	\$ -	\$ -					0			
Active		Interface	Internal-GG	Interface Impacts	Shared construction work zones between opposite Concourse, i.e. Concourse G will cause potential for interface impacts.	Interdependent, high level interaction for coordination of critical activities.	LAWA		60%	60%	70%	\$ -	\$ -	\$ -	\$ -					0			
Active		Construction	Performance and Reliability	Subcontractor Performance and Reliability	Construction Subcontractors, default or failure to perform to expectations.	Performance and Payment bonds will be required and the portion to implement the remedy will require substantial time, such as several months.		47mm of subcontract work, 100m at rate of default, bond covers 80%	30%	50%	40%	\$ 18,888,000	\$ 30,000,000	\$ 23,000,000	\$ 4,000,000					0			
Active		Contractual	Requirement	Acceptance of Work Packages and Detail of Maintenance - LAWA Airport Access Roadwork	There is no clear process for final acceptance and what if acceptance for LAWA Airport Access Roadwork. This could delay or affect construction operations from opening new roadways and external responsibility for maintenance.	Indicate their specific provisions to define coordination of acceptance of LAWA Airport Access Roadwork between AHA and LAWA	LAWA	Extended punchlist, betterments, etc. 20 man work, 8 months	65%	80%	70%	\$ 1,888,000	\$ 3,000,000	\$ 2,300,000	\$ 1,400,000					0			
Active		Environmental	Construction	Noise, Vibration, Visual Impacts to third parties, i.e. Hotels on Century	Construction activities will be occurring within 10' of existing Hotels on Century. Third parties will be impacted in some degree.	Communicate with and engage third parties early. Reach consensus on best practice approach. Include contingency to allow for anticipated future damages.	LAWA	Requiring out hotel rooms 2 miles, 10 mile perimeter @ 1000m in year	70%	90%	80%	\$ 6,480,000	\$ 7,200,000	\$ 7,920,000	\$ 5,760,000					0			
Active		Environmental	Construction	Damage to Existing Private Facilities	Construction activities will cause damage to private facilities. Site work may cause damage to existing facilities due to construction activities.	Conduct preconstruction survey to document conditions of all existing facilities prior to construction.	SFJV	5 duct/bench/year, 4 years @ 100m each	60%	60%	60%	\$ 9,000,000	\$ 10,000,000	\$ 11,000,000	\$ 5,000,000					0			
Active		Design	Requirement	Multiple reviews of 90% Plans	Potential for multiple reviews of 90% plans will delay permitting and construction.				0%	5%	5%	\$ -	\$ -	\$ -	\$ -					0			
Active		Design	Requirement	Scope Change between LAWA projects	Scope and schedule shift between projects under the same program.	LAWA coordination between projects - this will be a wash for LAWA as a program.	LAWA (TBD)	More of a schedule risk	80%	100%	90%	\$ -	\$ -	\$ -	\$ -					0			
Active		Utilities	Abandonment/Reuse	Comm Lines potential of having asbestos	Existing comm lines have a potential of containing asbestos.	Refer to as-built for more information and verify with utility owner. Be prepared to obtain environmental permits and to employ a specialized subcontractor to handle the removal. Coordinate with each utility company to confirm that the old line can be recycled or abandoned.			10%	40%	25%	\$ 1,888,000	\$ 2,000,000	\$ 2,200,000	\$ 500,000					0			
Active		Construction		ODH pile alternatives								\$ -	\$ -	\$ -	\$ -					#DIV/0!			
Active		Construction		Pier/CBB Pile Delays	Swift opening of abutment piles leading to welding on pile extensions delaying the abutment construction. This assumes pier/CBB pile.							\$ -	\$ -	\$ -	\$ -					#DIV/0!			
Active		Construction		Lane Closures Delays	Lane pick-up of lane closures.	Provide specifics in the contingency plans, and clearly state all measures to prevent late pick-ups.						\$ -	\$ -	\$ -	\$ -					#DIV/0!			
Active		Construction		Lane Openings of Ramps/Bridges	Lane openings of ramps/bridges, etc. to traffic.	Provide specifics in the contingency plans, and clearly state all measures to prevent late openings.						\$ -	\$ -	\$ -	\$ -					#DIV/0!			
Active		Construction		Precast Girder Defects	Precast girder defects due to deep, wide flange girders could delay delivery and/or require new girders to be cast.							\$ -	\$ -	\$ -	\$ -					#DIV/0!			
Active		Construction		Public Vehicle Access	Maintenance delays to businesses, and maintaining traffic on public streets and traffic within the CTA (No back-ups beyond existing conditions)							\$ -	\$ -	\$ -	\$ -					#DIV/0!			
Active		Construction		Unsuitable Materials	Unsuitable Material within excavations on the project site.							\$ -	\$ -	\$ -	\$ -					#DIV/0!			

RISK REGISTER				Product Name:		Quantitative Risk Analysis															
Risk Identification				Risk Description					Probability			Cost Impacts - Current Total				Total Time Impact (Non-Critical days)				Critical Path Delays	
Status	Location	Risk Type (Level 1)	Risk Type (Level 2)	Title	Risk Description/Summary	Planned Mitigation and Actions (LAWA)	Risk Manage	Assumptions	Low	High	Average	Low (Cost)	Most Likely (Cost)	High (Cost)	Probable (Cost)	Low (Days)	Most Likely (Days)	High (Days)	Probable (Days)	Is the delay deemed on the critical path?	Daily Rate GC/RGR/Soft
<div> <div>Risk Allocated to Owner Contingency</div> <div>Risk Allocated to Allowance</div> <div>Risk Allocated to Contractor Contingency</div> <div>Total Risk Exposure</div> </div>																1	-	1	-	1	-

JOBNO 00000	152,147	\$	15,214,635
JOBNO 00000	0	\$	5,249,583
JOBNO 00000	152,147	\$	20,964,258

Appendix 15 – Sustainability Plan



Sustainability Plan (PR-20)

SKANSKA | FLATIRON

Contents

Sustainability Plan	3
1 Overview and Goals	3
2 Sustainable Project Management	3
3 Sustainable Construction Activities.....	3
4 Cleaning in General	3
5 Sustainability Certifications.....	3
Appendix 1 - Draft Sustainability Management Plan	4
Appendix 2 - Skanska Sustainability Plan/Policy	Error! Bookmark not defined.
Appendix 3 – Flatiron Skanska Sustainability Plan/Policy	Error! Bookmark not defined.

Sustainability Plan

1 Overview and Goals

SFJV intends to comply with all sustainability requirements in PR-20, as well as its corporate sustainability programs, and the project sustainability management plan (the draft project sustainability management plan is in Appendix I).

2 Sustainable Project Management

SFJV has worked with LAWA to use LAWA's Prolog Manager system and internally SFJV's Procore management system to eliminate paper for submittals, RFI's, Change Orders, and other project correspondence.

During Construction SFJV will coordinate just-in-time deliveries to the greatest extent possible.

3 Sustainable Construction Activities

Please reference Appendix 17 – Storm Water Pollution Prevention Plan, Appendix 18 – Hazardous Materials Management Plan, Appendix 19 – Environmental Monitoring and Control Plan for details on sustainable practices to be implemented during construction.

4 Cleaning in General

SFJV will keep the site free from accumulations of waste material and will maintain good housekeeping throughout its construction activities. In addition to the individual crews, SFJV has included in its construction estimate a dedicated crew to ensure the site is always maintained and clean.

5 Sustainability Certifications

In accordance with RFI 05 – the project will target to achieve an Envision Certification of Gold or Better. LAWA's PM/CM is leading the Envision Certification process. SFJV/HNTB are supporting LAWA's PM/CM as they develop the certification application. See Appendix 1 for the draft sustainability management plan developed by LAWA's PM/CM – provided for reference only.

Appendix 1- Draft Sustainability Management Plan

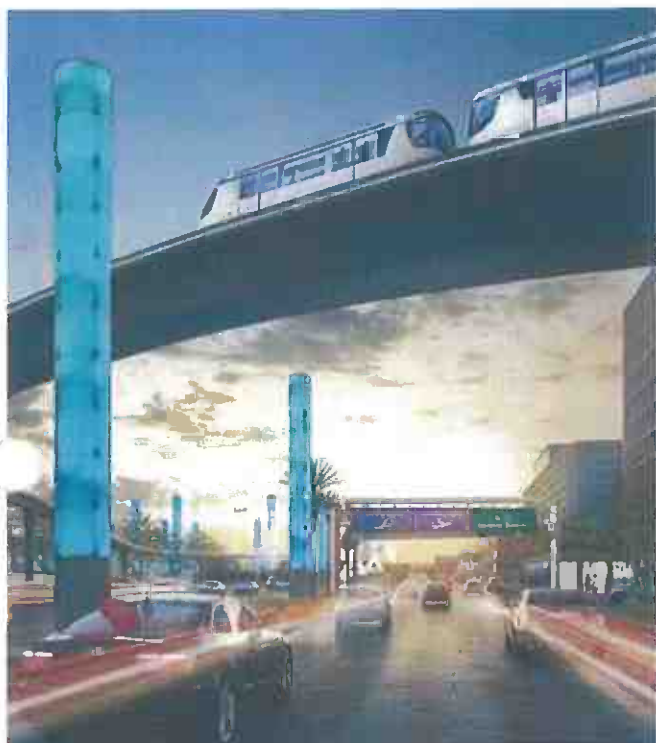
Sustainability Management Plan

LAWA ATMP

Roadway Reconfiguration and Congestion
Reduction Plan

Los Angeles, California
September 25, 2024

DRAFT
FOR INFORMATION ONLY



Document Revision Record

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Table of Contents

Table of Contents.....	2
Executive Summary	3
1 Introduction	5
1.1 Purpose	5
1.2 Commitment	5
1.3 Project Description.....	5
2 Roles and Responsibilities	11
3 Sustainable Design Practices.....	13
3.1 Analysis and Methodology	13
3.1.1 Envision Assessment.....	13
3.2 Project Sustainability Goals	16
3.3 Sustainability Focus Areas.....	18
3.4 Key Performance Indicators (KPIs).....	19
4 Sustainability Approach and Implementation.....	22
4.1 Design	24
4.2 Construction.....	25
4.3 Environmental, Economic, and Social Impacts.....	26
4.3.1 Environmental.....	Error! Bookmark not defined.
4.3.2 Economic.....	Error! Bookmark not defined.
4.3.3 Social.....	Error! Bookmark not defined.
5 Deliverables	Error! Bookmark not defined.
6 Third-Party Rating.....	28
6.1 Envision Credit Summary.....	28
6.1.1 Envision Work Plan.....	Error! Bookmark not defined.
7 Sustainable Business Practices and Procurement	30
8 Quality Assurance.....	Error! Bookmark not defined.
9 Monitoring and Reporting	34
9.1 Design & Construction	34
9.2 Operations & Maintenance.....	36

Executive Summary

The LAWA Airfield & Terminal Modernization Project (ATMP) project includes access roadway improvements that will reduce airport-related congestion on public streets by moving airport traffic off local streets and onto new dedicated access roadways. These new roadways will enable future construction of Terminal 0 and future access to the new Terminal 9. This project scope does not involve terminal work. The project scope includes construction of new elevated, at-grade, and below-grade roadways, modified intersections, and arrival and departure ramp realignment. It will also be removing several ramps, roadway sections, and bridges.

The main purpose of the project is to enhance the safety and efficiency of ground transportation at LAX by consolidating roadway access to and from the Central Terminal Area (CTA). Separating airport traffic from local traffic would reduce congestion that results in back-ups into the local street network. The project also seeks to reduce queuing on local streets and increase the throughput into and out of CTA by enabling dynamic, demand-based transportation policies and modernizing the transportation technology systems, e.g. GPS, Smart-Parking, Traffic-Monitoring, etc.

The purpose of this Sustainability Management Plan (SMP) is to detail the implementation of sustainability procedures and practices during the design and construction of the project.

The project is being planned, designed, and constructed to align with LAWA's overall commitment to sustainability. Project sustainability goals are aligned with LAWA's sustainability vision.

The project is using the Envision sustainable infrastructure framework to guide and measure sustainability. Envision use is driven by an owner commitment to sustainability, interest in incorporating sustainability into project design and improving overall sustainable performance, and an airport Envision requirement. Envision use facilitates a holistic assessment and integrate best practices that address a broad range of social, economic, and environmental indicators. Envision is an industry-recognized tool that supports more sustainable project planning, design, construction, and operations and maintenance. The project will use the framework to focus on:

- Improving safety for the broader community.
- Reduce light pollution for neighboring communities and businesses.
- Enhance multi-modal connections for airport users and employees.
- Make positive impacts on the local economy including job creation and workforce training.
- Managing stormwater runoff responsibly through Low Impact Design (LID).
- Responsibly managing resources and waste during construction.
- Selecting materials that reduce the level of embodied carbon in the project
- Reduce greenhouse reductions both during construction and in overall operations.
- Improving the community's local mobility.

The 2019 LAWA Sustainability Action Plan also contained the following focus areas for sustainability:

- Energy management, to reduce energy impacts
- Water management leading to efficient operations and to reduce water use
- Air emissions measures that achieve ongoing reduction of air pollutants
- Material resources management to address waste reduction, recycling, and re-use
- Noise management to minimize aircraft noise affecting communities
- Natural resources management with restoration
- Projects and other wildlife conservation programs
- Corporate responsibility to ensure business and workforce inclusion

Key Performance Indicators for these focus areas are outlined in **Table 2**.

The project is being planned, designed and constructed to align with LAWA's overall commitment to sustainability. The project is registered with ISI and is planning for Envision verification using Pathway A. The project team has a target of Envision Gold verification, which requires the project to achieve 40% of applicable points.

FIGURE 1 RECOGNITION LEVELS



FIGURE 2 PATHWAY A



1 Introduction

1.1 Purpose

This Sustainability Management Plan (SMP) is intended to describe the approach that the project team will use to establish sustainability goals and objectives, initiate actions, and review performance related to project sustainability.

Sustainability efforts include guiding the project team to meet sustainability goals and objectives, tracking related performance, collaborating about the Envision process and credits, and coordinating sustainability performance.

The SMP informs and supports the project team in assessing the project's environmental, social and economic aspects, and establishing performance objectives to reduce project's impacts. The plan considers current and future conditions, trends and emerging topics, and opportunities to influence performance beyond the project boundaries.

1.2 Commitment

The project team is committed to leading in sustainability by addressing economic, environmental and social aspects of the Project at each project stage. The goals of the project are to enhance the safety, efficiency, and user experience of ground transportation systems at LAX while modernizing those transportation systems as well.

From their website, LAWA commits to "...setting the global airport standard for customer satisfaction and security, regional economic leadership and organizational performance. Building on our core values, we will engage our employees, tenants, customers, and communities in an effort to continually improve our environmental, economic and social performance."

Our support of sustainability efforts aligns with and reinforces these goals, as well as the project's vision to reduce the negative impacts of airport-related traffic and congestion on local communities.

About LAWA

Los Angeles World Airports (LAWA) is the City of Los Angeles department that owns and operates Los Angeles International (LAX) and Van Nuys (VNY) general aviation airports. Both play an integral role in helping to meet the Southern California regional demand for passenger, cargo and general aviation service. Both airports make a distinct contribution to the strength of the system as it provides a high level of safety, security and service for its customers, communities and stakeholders.

As the aviation authority for the nation's second largest city and hub of one of the world's most populous metropolitan areas, Los Angeles World Airports (LAWA) is faced with the challenges of providing an airport system to serve a major portion of the Southern California market. LAWA has met this challenge, and at no cost to taxpayers.

Sustainability Action Plan Vision

Committed to setting the gold standard in sustainability for the people of Los Angeles and the world.

1.3 Project Description

The project includes access roadway improvements that will reduce airport-related congestion on public streets by moving airport traffic off local streets and onto new dedicated access

roadways. These new roadways will enable future construction of Terminal 0 and future access to the new Terminal 9. The project includes construction of new elevated, at-grade, and below-grade roadways, modified intersections, and arrival and departure ramp realignment. It will also be removing several ramps, roadway sections, and bridges.

1.3.1 Project Components

When planning to verify an Envision project, it is important to clearly define the project boundary and keep it consistent across all credit submittals. This entails fully explaining the elements that are being reported on in a project submission, as well as clarifying if there are elements that are not included that may be referenced in project documents. When a project is submitted for verification, the Envision Sustainability Professional (ENV SP) submits a verification submittal quality assurance checklist confirming that the project boundary has been provided and is consistently applied across credits. A site map must also be provided indicating the boundary and all project elements. The Institute for Sustainable Infrastructure (ISI) does not dictate what project boundaries are appropriate for Envision verification; rather, ISI and its team of verifiers rely on submitting teams to clearly define the boundaries of the project(s) being submitted for verification.

The main components/ Envision boundary for the ATMP are listed and shown in Figure 1 below:

- Sepulveda Blvd from 94th Street intersection to the north tunnel portal
- Century Blvd from Airport Blvd to Sky Way to the north and Terminal 8 to the south
- 94th Street from Sepulveda Blvd to Jetway Blvd (proposed street)
- 96th Street from Sepulveda Blvd to Jetway Blvd
- 98th Street from Sepulveda Blvd to Jetway Blvd
- Sky Way from 96th Street to World Way
- CTA roads from Terminal 1 to the north to Terminal 8 to the south



Figure 3 ATMP Boundaries

A more detailed description of the boundaries and scope is shown in Figure 2 and described below:

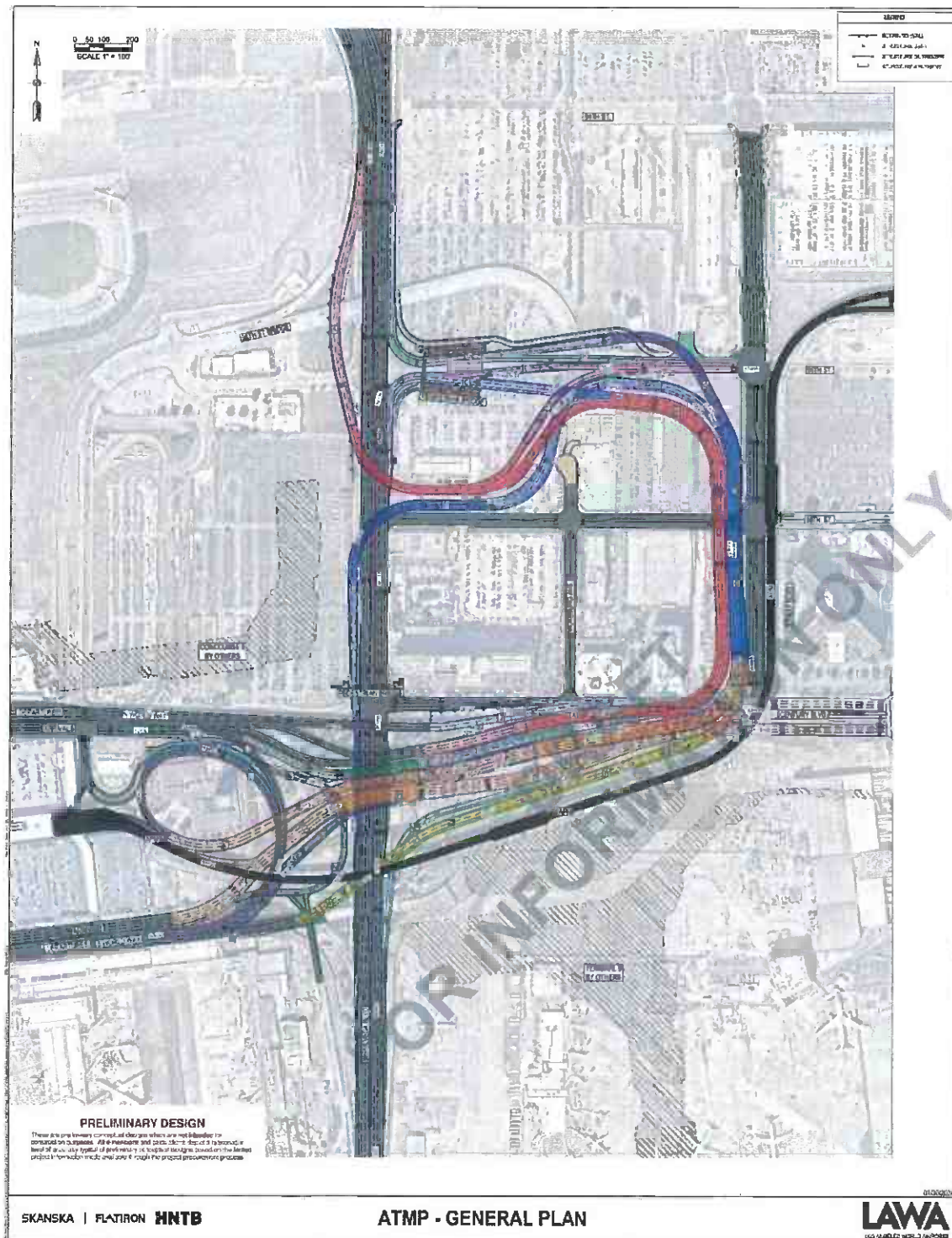


Figure 4 Conceptual Site Plan

- **Sepulveda Blvd Modifications:** Sepulveda Blvd will be modified in the northbound direction to allow construction of the Segment NE connection, removal of the existing CTA/Century Blvd ramp connection, and widened in the vicinity of 96th Street to facilitate connection to Segments C, G, E, and F. The southbound direction will be modified to provide access to Segments A and D, removal of the westerly sidewalks and median will be reconfigured for the proposed Segments A, D, I, P, K, and W overcrossing structure bents. A pedestrian bridge over Sepulveda Blvd at Century Blvd will be added.
- **Century Blvd Modifications:** Century Blvd will be modified at the intersection of Jetway Blvd to provide for left turn lanes into the future Terminal 9 roadway by others, and modified approach from Segment P. The northern curb lines and travel way alignment between Jetway Blvd and Vicksburg Ave will be re-configured to fit columns for the Segments A and K overcrossing structures.
- **Proposed Segment A:** New roadway at grade and bridge from just south of the existing Lincoln Blvd/Sepulveda Blvd intersection to provide southbound traffic access to the CTA. This alignment varies from two to three lanes and is grade separated above Sepulveda Blvd, 98th Street, and Century Blvd.
- **Proposed Segment C:** New roadway at grade and bridge from the existing Sepulveda Blvd/96th Street intersection to carry the northbound Sepulveda Blvd traffic to the CTA via merging in Segment A. This alignment is two lanes and is grade separated to cross over Segments F and D.
- **Proposed Segment D:** New roadway at grade and bridge to carry the outbound CTA traffic via Segments K and W to southbound Sepulveda Blvd. This alignment varies from one to three lanes and is grade separated above 98th Street, below Segments C and A, and above Sepulveda Blvd.
- **Proposed Segment E:** Modifications to 96th Street roadway to provides access from the Jetway Blvd/96th Street intersection to northbound Sepulveda Blvd. This alignment is one at-grade lane.
- **Proposed Segment F:** Modifications to 96th Street roadway to provide access from northbound Sepulveda Blvd to the Jetway Blvd/96th Street intersection and ITF West. This alignment varies from one to two at-grade lanes.
- **Proposed Segment G:** New roadway at grade and bridge to provide access for outbound CTA to northbound Sepulveda Blvd via Segment D. This alignment is one lane grade separated over 96th Street (Segments E and F) and the driveway to the LAX City Bus Center.
- **Proposed Segment I:** New roadway at grade and bridge to provide access from westbound Century Blvd to the CTA arrival level by joining to the existing N. World Way. This alignment is two lanes grade separated over Sepulveda Blvd and Segment D.
- **Proposed Segment K:** New roadway at grade and bridge connecting Segment L and Center Way to Segment D, to provide CTA outbound access to both northbound and southbound Sepulveda Blvd. This alignment is three lanes and is grade separated under Segment L, and over Segments N, Sepulveda Blvd and Century Blvd.

- **Modified Segment L:** The existing structure connects CTA departures level to Segment K and provides CTA outbound access to northbound and southbound Sepulveda Blvd will be modified by widening the structure from one to two lanes. This structure crosses over Segments P and K.
- **Modified Segment L1:** The existing structure from Segment L to CTA provides for the departure-to-departure return movement. This alignment remains at one lane and is grade separated over Segment N and may need some modifications due to the proposed widening of Segment L.
- **Proposed Segment M:** New bridge from CTA departures level joining Segment P with final destination of eastbound Century Blvd. This alignment varies from one to two lanes and is grade separated over Segment N and Sepulveda Blvd.
- **Proposed Segment N:** New at grade roadway to provide arrival-to-arrival level return movement to CTA. This alignment is one lane and crosses under Segments L, M, P, K, and L1 bridges.
- **Proposed Segment NE:** New at grade roadway providing direct connection from northbound Sepulveda Blvd to Century Blvd via Segment P. It also provides access to future Terminal 9. This alignment is one lane and crosses under Segment W bridge.
- **Proposed Segment P:** New at grade roadway and bridge from CTA outbound arrivals level to Century Blvd. This alignment varies from three to five lanes and is grade separated crossing under Segment L, and over Segments N and D, and Sepulveda Blvd.
- **Proposed Segment W:** New bridge from CTA departures level to provide access to northbound and southbound Sepulveda Blvd via Segment D. This alignment facilitates a pending connection to Terminal 9 roadways, which will be designed by others. This alignment varies from one to two lanes and is grade separated crossing over Sepulveda Blvd, Segment NE, and Century Blvd.
- **World Way Modifications (Arrivals):** At Sky Way the intersection will be modified to remove the north leg and it will become a T intersection.
- **Existing Roadway Removals:** The project demolishes the following roadways:
 - Ramp from northbound Sepulveda Blvd to CTA
 - Ramp from southbound Sepulveda Blvd to Sky Way
 - 96th Street bridge over Sepulveda Blvd
 - Vicksburg Ave from 96th Street to mid-block to 98th Street
 - Intersection of Center Way, World Way, and outbound road to Century Blvd
 - Road outbound to Century Blvd including bridge over Sepulveda Blvd and two associated loop ramps to Sepulveda Blvd
 - Inbound road from Century Blvd including bridge over Sepulveda Blvd
 - West Century Blvd west of Sepulveda Blvd



Figure 5 Regional Context

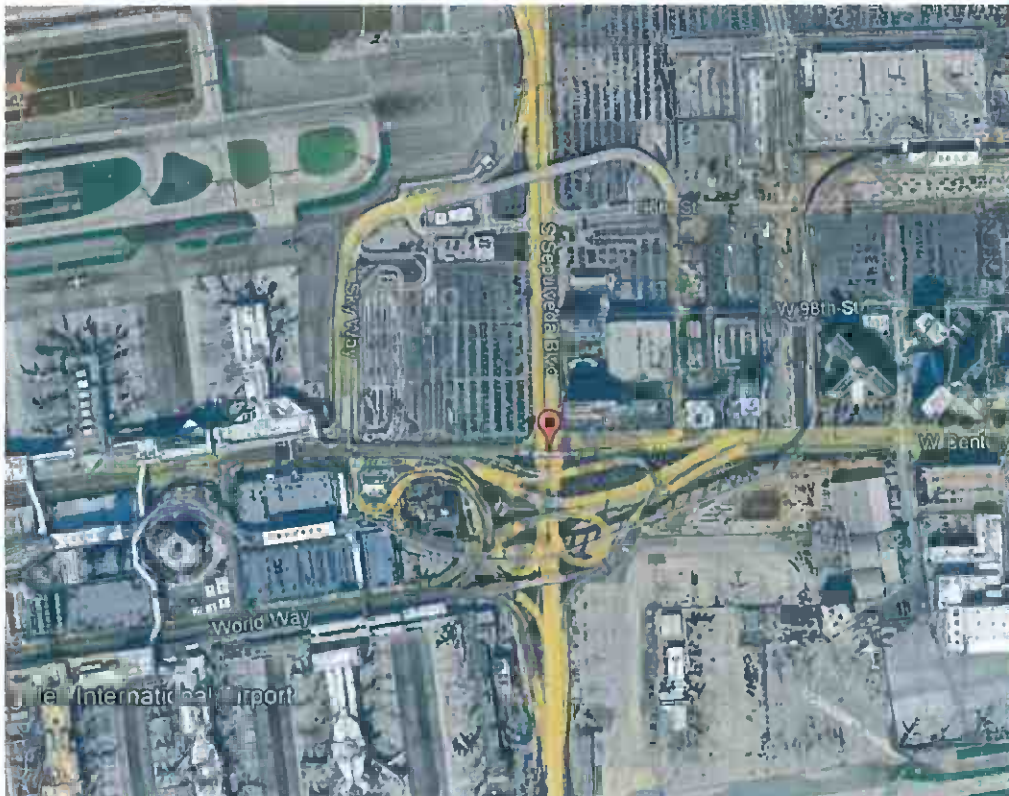


Figure 6 Project Site Aerial

2 Roles and Responsibilities

Project Team Organization

"Key Project Team Members" as defined by Envision v3 Credit Amendment #005 are:

1. Owner – Los Angeles World Airports (LAWA)
2. Lead Construction Contractor: Skanska + Flatiron Joint Venture
3. Lead Designer: HNTB (part of SFJV)
4. Lead Permitting: SFJV
5. Program Manager: HDR
6. Envision Lead: HDR

The organizational chart illustrates the project team configuration (Figure X). Table 1 details general responsibilities for each role in relation to sustainability management.

Table 1 - Sustainability Roles and Responsibilities

Name	Project Role	Organization	Sustainability Responsibilities
John Thomas	Program Manager	HDR/LAWA	Documentation/Review
Will Kirby	Lead ENV SP	HDR/LAWA	Envision Lead/Submittals and Process
Jazz Peluchette	ENV SP	HDR/LAWA	Envision Support/Doc. Writing
Chad Tucker	ENV SP	HDR/LAWA	Envision Support/Doc. Writing
Chris Halpin	Project Manager	SFJV	
Peter Weiss	Deputy PM	SFJV	
Richard Hart	Design Manager	SFJV	
Michelle Barton	Sustainability Mgr	LAWA	
[others]			

Figure X. Organizational Chart of Project Team

[JOHN TO PROVIDE]

3 Sustainable Design Practices

3.1 Analysis and Methodology

The SMP builds on LAWA's commitments to sustainability and looks to leverage these activities to incorporate elements within the project that improve sustainable performance.

The SMP references a number of project and related plans, including but not limited to:

- LAWA Sustainability Action Plan (2019)
- Sustainable Airport Planning, Design and Construction Guidelines for Implementation on All Airport Projects (LAWA Guidelines)
- LA 's Green New Deal: Sustainable City Plan (2019)
- LA County, Planning and Land Development Handbook for Low Impact Development (LID) Part B Planning Activities
- LA County, Low Impact Development Standard Manual
- CALGreen – California Green Building Standards Code, 2022
- CEC California Energy Code: 2022 Building Energy Efficiency Standards for Nonresidential Buildings
- Green Streets

Using this information as a foundation, the project team has established project sustainability goals and performance objectives.

3.1.1 LAWA Sustainability Action Plan

LAWA's Sustainability Action Plan (SAP) seeks to move beyond incremental reductions in the magnitude of their environmental footprint toward using data and metric driven strategies to make positive impacts for the future. Though the plan is holistic as it considers financial and social sustainability, the primary focus is the direct environmental impacts LAWA has on the community, including water and energy use reduction, increasing re-use and recycling, minimize noise and emissions, plus workforce inclusion. The 2045 goals of the SAP are below:

- 100% renewable energy use
- No potable water consumed for industrial uses
- Zero carbon emissions for LAWA operations

3.1.2 Envision

The project team is using Envision as a structure for effectively collaborating and communicating around the complex concepts and challenges of sustainability.

Envision is a sustainable infrastructure framework developed through a joint collaboration between the Zofnass Program for Sustainable Infrastructure at the Harvard University Graduate School of Design and ISI. ISI is a not-for-profit education and research organization, dedicated to developing and maintaining a civil infrastructure framework, and was formed by the American Council of Engineering Companies (ACEC), the American Public Works Association (APWA), and the American Society of Civil Engineers (ASCE).



Envision provides a holistic framework for evaluating and rating the community, environmental, and economic benefits of all types and sizes of infrastructure projects, giving recognition to those projects that use transformational, collaborative approaches to assess the sustainability indicators over the course of the project's life cycle. The system has 64 sustainability credits divided into five sections: Quality of Life, Leadership, Resource Allocation, Natural World, and Climate and Resilience. Envision is similar in structure to the LEED rating system. While LEED evaluates buildings, Envision provides industry-wide sustainability metrics for all infrastructure types.

Any infrastructure project may use Envision as a framework for evaluating sustainability performance. Recognition is sometimes a driver when using the system, but most agencies use Envision due to benefits like:

- Charting a clear sustainability vision for all members of the project team early and often throughout planning, design, construction, and operation.
- Facilitating interdisciplinary and interdepartmental project team coordination, including planning and design charrettes, regular project meetings, documentation, and reviews.
- Raising the bar for sustainability decisions by starting project team dialogue about issues that might not otherwise have been raised.
- Integrating with and supporting organizational sustainability goals.
- Illustrating that the project addresses community concerns.
- Looking at long-term costs and risks.
- Enhancing transparency and credibility of sustainability efforts.
- Providing a quality control system for project decisions.
- Tracking performance and establishing design, construction, and operations metrics.
- Demonstrating commitment to implementing more sustainable infrastructure.

To earn formal recognition from ISI, a project must be officially registered and submitted for verification (and associated fees paid to ISI). To do so, supporting documentation must be submitted electronically to ISI through their online system. ISI then provides the documentation to a trained third-party Verifier who evaluates the information and returns their assessment to ISI for review and authentication (Figure 4).



Figure 7. Envision Process

3.1.2.1 PATHWAYS

Infrastructure projects may seek third-party verification at or after 95% design completion. This means all major design decisions must be made prior to seeking third-party verification and award. There are two verification pathways, Pathway A: Design + Post-Construction and Pathway B: Post-Construction, the steps which are outlined in the graphic at the right.



Figure 8. Envision Pathways

3.1.2.2 RECOGNITION

Envision recognition levels are awarded based on the percent of total applicable points earned. This recognition provides third-party confirmation of a project team's commitment to the environment and community. Higher levels of recognition illustrate greater levels of contribution to environmental, economic, and social aspects of sustainability.

- Verified – 20% or more, but less than 30%
- Silver – 30% or more, but less than 40%
- Gold – 40% or more, but less than 50%
- Platinum – 50% or more



Figure 9. Recognition Levels

3.1.2.3 PRELIMINARY ENVISION ASSESSMENT

Based on multiple discussions with the project team, a preliminary Envision assessment was conducted to examine the project using the Envision sustainable infrastructure framework criteria to identify sustainability priorities and inform future decision-making. The Preliminary Envision Assessment Summary Scorecard is included in Appendix B.

Significant issues identified during the assessment that affect overall project sustainability include:

- Community Involvement and Quality of Life
- Equity and Social Justice Advancement
- Enhancing Public Space
- Stakeholder Buy-in
- Operational and Construction Waste Reduction
- Potable and Non-potable Water Usage During Construction
- Renewable Energy Usage
- Managing Stormwater
- Air Pollutant Emissions Reduction
- Net Embodied Carbon Reduction

An initial Sustainability Management Plan meeting was held on September 18, 2024. Participants performed a SWOT analysis, discussed project sustainability goals, related Sustainability Focus Areas, and Key Performance Indicators (KPI) that outline sustainability considerations during design and construction. Additional meetings were used to refine goals, focus areas, and KPIs.

3.2 SWOT Analysis

The SWOT Analysis discussed strengths, weaknesses, opportunities, and threats recognized in the project's planning stage. This analysis included input from LAWA project team members and design staff. The information was augmented with input from the construction manager when it was brought on board. Table 1. SWOT Analysis illustrates the early examination. Actions resulting from this analysis included further discussions around stakeholder and community engagement, as well as general communications strategies and opportunities for improved procurement processes.

Table 2. SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> - Using Progressive Design-Build - Established Sustainability Goals/Plans - Emissions reductions (via design) 	<ul style="list-style-type: none"> - Budget/Schedule constraints - Limited scope opportunities
Opportunities	Threats
<ul style="list-style-type: none"> - Workforce development - Showcase project - Net Embodied Carbon Reduction - 	<ul style="list-style-type: none"> - Weather/major rain events - No reclaimed water offered in the area by LADWP - Equity and Stakeholder buy-in

Figure 10. Key Elements of a Sustainability Framework



3.3 Project Sustainability Goals

- Construction Safety – zero incidents (look into EIR requirements)
- Minimize Noise and Vibration – noise assessment in EIR
 - Construction not louder than current ambient
 - No impact driving
- Reduce light pollution from existing
 - Reduce light pollution at hotels
- Minimize potable water for industrial uses
- Look at waste diversion standard for Green Building code
- To discuss:
 - zero carbon rebar
 - concrete mix design

For reference, the 2019 Sustainability Action Plan Goals by 2045 are also listed below:

- 100% renewable energy use
- No potable water consumed for industrial uses
- Zero carbon emissions for LAWA operations

3.4 Sustainability Focus Areas

The following areas and sustainability strategies were identified during the Envision assessment:

- Reducing construction waste/ increasing construction waste diversion
- Renewable energy for lighting
- Increase mobility/ access to People Mover
- Further community engagement
- Reducing carbon emissions
- Material selection

The following final list was then discussed at the SMP meeting:

- Improving safety for the broader community.
- Reduce light pollution for neighboring communities and businesses.
- Enhance multi-modal connections for airport users and employees.
- Make positive impacts on the local economy including job creation and workforce training.
- Managing stormwater runoff responsibly through Low Impact Design (LID).
- Responsibly managing resources and waste during construction.
- Selecting materials that reduce the level of embodied carbon in the project
- Reduce greenhouse reductions both during construction and in overall operations.
- Improving the community's local mobility through the roads and highway system.

3.5 Key Performance Indicators (KPIs)

Table 2 outlines the KPIs for the sustainability focus areas and how the performance objectives align with community needs and issues.

- **KPIs** are quantifiable measures of performance over time for a specific objective.
- The **KPI Goal** shows a specific objective that the project aims to achieve.
- A Baseline is conventional performance or “business-as-usual” condition to show what the target will be measured against. The Envision Guidance Manual provides several options for identifying acceptable baselines (listed in order of preference):
 - Existing conditions or the existing system(s) being replace.
 - A seriously considered project alternative
 - Industry “standard practice” or existing codes, standards, or regulatory requirements
 - A project of similar scope and size operating within the same geographical area or within a geographical area with similar operating conditions.
- The **Target** is preferably a quantifiable performance level the project is trying to reach, e.g., percent reduction.
- The **Measurement/Mechanism** explains how the baseline and follow-up will be measured to show progress toward the target.

Table 3 Key Performance Indicators Schedule

KPI Goal	Baseline	Target	Measurement / Mechanism	Related Envision v3 Credits
Focus Areas as headings				

KPI Goal	Baseline	Target	Measurement / Mechanism	Related Envision v3 Credits
Support and Enhance the Community				
Engage stakeholders	Industry-required programs for soliciting feedback and communicating project information to the public (Existing codes, standards, or regulatory requirements)	Engage stakeholders by providing information and soliciting and considering feedback in project design. Quarterly meetings by Biosolids advisory group. X Public meetings. Any quantitative metrics here? # of interactions? (LD1.3 Restorative LOA)	Number and type of outreach and community engagement practices. Process for review and consideration of comments. Track website traffic and comment interactions.	QL1.1, QL1.4, QL3.1, QL3.3, LD1.2, LD1.3
Support economic growth				
Minimize construction impacts to surrounding community	Compliance with laws and regulations (Existing codes, standards, or regulatory requirements)	1. Limit working hours more stringently than required by law. 2. Fuel emissions: Specify use of environmentally friendly motors (look at emissions reduction). 3. Lighting: Specify use of focused downlight for early-morning or night work. 4. Limit noise / vibration. 5. Specify truck traffic patterns and logistics. (QL1.6 Conserving LOA)	1. Community feedback during construction; monitoring and response to comments. 2. Monitoring and logging noise and vibration levels. 3. Documentation of work schedule and motor use.	QL1.3, QL1.6, RA2.2

KPI Goal	Baseline	Target	Measurement / Mechanism	Related Envision v3 Credits
Procure local/ regional materials when possible	Materials procured sources/ distance not a consideration during procurement discussion (Existing codes, standards, or regulatory requirements)	At least 90% of soils, aggregate, plants, and other materials through local sources (per Envision v2 credit RA1.4 criteria, Superior LOA).	Regional materials forms and project quantities. Regional materials content calculations.	RA0.0
Procure recycled-content materials	Materials with no recycled content (Existing codes, standards, or regulatory requirements)	At least 25% of recycled materials including materials with recycled content and/or reused existing structures or materials. (RA1.2 Superior LOA)	Recycled materials forms and project quantities. Reuse and recycled content calculations.	RA1.2
Reduce construction waste	No recycling or construction waste diversion (Existing codes, standards, or regulatory requirements)	Reduce construction waste entering landfills by at least 75%. (RA1.4 Superior LOA)	Construction waste management plan and diversion calculations.	RA1.4
Reuse materials and structures on site where possible	No structure reuse; demo existing structures and build new (Existing codes, standards, or regulatory requirements)	Integrate existing structures into project design when practicable. (RA1.2 Superior LOA)	Recycled materials forms and project quantities. Reuse and recycled content calculations.	RA1.2, RA1.4, RA2.2, QL1.6, CR1.2

Metrics related to the Envision levels of achievement (LOA) associated with pursued credits, are also seen as Key performance indicators. Credit levels of achievement are shown on Table 3.

Table 4. Envision Scorecard (7-25-24)

Category	Credit	N/A	No LOA	Improved	Enhanced	Superior	Conserving	Restorative
QUALITY OF LIFE	QL1.1 Improve Community Quality of Life	0	0	2	5	10	20	26
	QL1.2 Enhance Public Health and Safety	0	0	2	7	12	16	20
	QL1.3 Improve Construction Safety	0	0	2	5	10	14	-
	QL1.4 Minimize Noise and Vibration	0	0	1	3	6	10	12
	QL1.5 Minimize Light Pollution	0	0	1	3	6	10	12
	QL1.6 Minimize Construction Impacts	0	0	1	2	4	8	-
	QL2.1 Improve Community Mobility and Access	0	0	1	3	7	11	14
	QL2.2 Encourage Sustainable Transportation	0	0	-	5	8	12	16
	QL2.3 Improve Access and Wayfinding	0	0	1	5	9	14	-
	QL3.1 Advance Equity and Social Justice	0	0	3	8	10	14	18
	QL3.2 Preserve Historic and Cultural Resources	0	0	-	2	7	12	18
	QL3.3 Enhance Views and Local Character	0	0	1	3	7	11	14
	QL3.4 Enhance Public Space and Amenities	0	0	1	3	7	11	14
	QL0.0 Innovation	TBD						
POINTS Max 200 Applicable 200		High 126		Low 76				
LEADERSHIP	LD1.1 Provide Effective Leadership and Collaboration	0	0	2	6	12	18	-
	LD1.2 Foster Collaboration and Teamwork	0	0	2	5	12	18	-
	LD1.3 Provide for Stakeholder Involvement	0	0	3	6	9	14	18
	LD1.4 Pursue Byproduct Synergies	0	0	3	6	12	14	18
	LD2.1 Establish a Sustainability Management Plan	0	0	4	7	12	18	-
	LD2.2 Plan for Sustainable Communities	0	0	1	6	9	12	16
	LD2.3 Plan for Long-Term Monitoring and Maintenance	0	0	2	5	8	12	-
	LD2.4 Plan for End-of-Life	0	0	2	5	8	14	-
	LD3.1 Stimulate Economic Prosperity and Development	0	0	3	6	12	20	-
	LD3.2 Develop Local Skills and Capabilities	0	0	2	4	8	12	16
	LD3.3 Conduct a Life-Cycle Economic Evaluation	0	0	5	7	10	12	14
	LD0.0 Innovation	TBD						
POINTS Max 182 Applicable 182		High 104		Low 50				
RESOURCE ALLOCATION	RA1.1 Support Sustainable Procurement	0	0	3	6	9	12	-
	RA1.2 Use Recycled Materials	0	0	4	6	9	16	-
	RA1.3 Reduce Operational Waste	0	0	4	7	10	14	-
	RA1.4 Reduce Construction Waste	0	0	4	7	10	16	-
	RA1.5 Balance Earthwork On Site	0	0	2	4	6	8	-
	RA2.1 Reduce Operational Energy Consumption	0	0	6	12	18	26	-
	RA2.2 Reduce Construction Energy Consumption	0	0	1	4	8	12	-
	RA2.3 Use Renewable Energy	0	0	5	10	15	20	24
	RA2.4 Commission and Monitor Energy Systems	0	0	3	6	12	14	-
	RA3.1 Preserve Water Resources	0	0	3	5	7	9	12
	RA3.2 Reduce Operational Water Consumption	0	0	4	9	13	17	22
	RA3.3 Reduce Construction Water Consumption	0	0	1	3	5	8	-
	RA3.4 Monitor Water Systems	0	0	1	3	6	12	-
	RA0.0 Innovation	4						
POINTS Max 196 Applicable 196		High 69		Low 17				

Category	Credit	N/A	No LOA	Improved	Enhanced	Superior	Conserving	Restorative
NATURAL WORLD	NW1.1 Preserve Sites of High Ecological Value	22	0	2	6	12	18	22
	NW1.2 Provide Wetland and Surface Water Buffers	-20	0	2	5	10	16	20
	NW1.3 Preserve Prime Farmland	-16	0	-	2	8	12	16
	NW1.4 Preserve Undeveloped Land	0	0	3	8	12	18	24
	NW2.1 Reclaim Brownfields	-22	0	11	13	16	19	22
	NW2.2 Manage Stormwater	0	0	2	4	9	17	24
	NW2.3 Reduce Pesticide and Fertilizer Impacts	0	0	1	2	5	9	12
	NW2.4 Protect Surface and Groundwater Quality	0	0	2	5	9	14	20
	NW3.1 Enhance Functional Habitats	-18	0	2	5	9	15	18
	NW3.2 Enhance Wetland and Surface Water Functions	-20	0	3	7	12	18	20
	NW3.3 Maintain Floodplain Functions	-14	0	1	3	7	11	14
	NW3.4 Control Invasive Species	0	0	1	2	6	9	12
	NW3.5 Protect Soil Health	0	0	-	3	4	6	8
	NW0.0 Innovation	4						
POINTS Max 232 Applicable 100		High 53		Low 46				
CLIMATE AND RESILIENCE	CR1.1 Reduce Net Embodied Carbon	0	0	5	10	15	20	-
	CR1.2 Reduce Greenhouse Gas Emissions	0	0	8	13	18	22	26
	CR1.3 Reduce Air Pollutant Emissions	0	0	2	4	9	14	18
	CR2.1 Avoid Unsuitable Development	16	0	3	6	8	12	18
	CR2.2 Assess Climate Change Vulnerability	0	0	8	14	18	20	-
	CR2.3 Evaluate Risk and Resilience	0	0	11	18	24	26	-
	CR2.4 Establish Resilience Goals and Strategies	0	0	-	8	14	20	-
	CR2.5 Maximize Resilience	0	0	11	15	20	26	-
	CR2.6 Improve Infrastructure Integration	0	0	2	5	9	13	18
	CR0.0 Innovation (earn up to 5 points)	TBD						
POINTS Max 190 Applicable 174		High 129		Low 93				
POINTS Max 1000 Applicable 852		High 481		Low 282				
Target Verification Level: Gold		High 56%		Low 33%				

High platinum to low silver

4 Sustainability Approach and Implementation

4.1 Planning

Sustainability was incorporated early into the project planning as there was already a solid foundation from which to build including the City of LA's Green New Deal City pLAn, LAWA's green building standards, and their 2019 Sustainability Action Plan (SAP). As the project progresses through design and construction, discussions will continue to integrate sustainability considerations into decision making. In parallel, the project team will continue to monitor the potential credit levels of achievement and documentation needs should the project decide to submit for verification when design is complete.

4.1.1 LAWA Sustainability Action Plan

LAWA updated their sustainability goals with the 2019 SAP to focus on aspects of sustainability that are of "vital importance to the community, region and future success of LAWA operations."

The plan covers several aspects of LAWA's operations, but some of the more relevant parts of the plan to the ATMP would be:

- Achieve 90% construction waste diversion rate by 2025 and 95% by 2035
- Reduce Vehicle Miles Traveled (VMT) using the LAX Landside Access Modernization Program that supports reoriented infrastructure to reduce traffic in the CTA.

This SAP works to support the City's broader Green New Deal, which was also updated in 2019. Among other targets and goals, the pLAn seeks to increase construction and demolition waste recycling requirements to at least 80% and reducing VMT by 100% by 2050.

4.1.2 Envision

The project is being planned to align with Envision in the event LAWA decides to register the project with ISI for Envision verification in the future. The project team has a target of Envision Gold verification, which requires the project to achieve 40% of applicable points.

Based on results of the preliminary Envision assessment and subsequent discussions, the project identified 57 credits for continued review, as well as two categories under which an innovation credit may be feasible. Based on continuing research and discussions, the project team will narrow the LOA range for each pursued credit as the project progresses. See Table 2 for ranges.

4.1.3 Environmental Impact Report Alignment

To promote collaboration and confirm alignment of the Environmental Impact Report (EIR) and Envision criteria, an evaluation was performed to compare Envision credits and topics being studied as part of the EIR. This information was shared with SFJV to provide an understanding of issues Envision examines and how that compares and contrasts with subjects covered in the EIR. The comparison also will be used to inform documentation efforts in the future, as applicable. Some EIR topics demonstrate a direct comparison to Envision credits and others are a little less straightforward but relate to a similar intent.

4.2 Design

The KPIs were reviewed regularly throughout the design phase. Sustainability design considerations were also a theme during project meetings.

Documentation to support Envision verification began early in the project process. The Project Team integrated sustainability into the project processes to proactively identify opportunities for incremental sustainable improvements and sources of documentation for the verification submittal.

Sustainability requirements and strategies are integrated into designs and specifications per Envision needs and project team agreement. These documents establish Contractor submittal requirements to demonstrate compliance with the sustainability metrics and provide documentation for the post-construction submittal. Sustainability strategies have been evaluated based on overall benefit, life-cycle costs, and compliance with applicable requirements and standards.

4.3 Construction

[TO COMPLETE LATER]

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4.4 Environmental, Economic, and Social Impacts

The project's environmental, economic, and social impacts have been assessed, including the potential for existing non-sustainable conditions to further deteriorate environmental, economic, or social conditions if left unaddressed. Elements of this assessment were derived from the

- LAWA Sustainability Action Plan (2019)
- LA 's Green New Deal: Sustainable City Plan (2019)
- Sustainable Airport Planning, Design and Construction Guidelines for Implementation on All Airport Projects (LAWA Guidelines)


































Table 3 lists project features/components with related sustainability considerations.

Each component is marked with the symbols below to denote if the impacts are:

-  Environmental
-  Economic
-  Social

Table 5 Sustainability Considerations and Impacts

Feature/ Component	Sustainability Consideration(s)	Potential Impacts
General		  
Lighting	- Replace any HPS light bulbs with LEDs	  
Emissions	- Revise lighting circuits to allow expansion of BSL's EV charging program from electroliers on streets adjacent to parallel parking.	  
Construction Best Practices		  
	- Contractor required to conduct rock-crushing operations on -site to reuse waste rock/concrete generated during construction to the maximum extent feasible.	
	- Contractors required to use renewable diesel fuel in off-road equipment and on-site, on-road trucks.	
	- Contractors required to recycle or salvage a minimum of 85 percent of non-hazardous construction and	

	demolition waste generated directly from construction of the ATMP.	
	- Only non-potable water will be used for any landscaping installed by the ATMP.	
	- Contractor required to develop noise control plans for construction noise impacts.	 
	- Contractor required to avoid noise-sensitive times (9:00 p.m. to 7:00 a.m. Monday – Friday; 6:00 p.m. to 8:00 a.m. Saturday; anytime on Sunday or holidays) to implement the noisiest on-site construction activities.	 
	- Contractor required to relocate any stationary source equipment (i.e. generators) whose use is flexible regarding location, at the greatest distance from noise-sensitive land uses.	 
Overpasses and Bridges		
	- Pedestrian bridge over Sepulveda Blvd.	 
Roads		
	- Reducing airport-related traffic back-ups on local streets.	  
Quality Control	- Program Wide Quality Assurance and Quality Control Plan	 
Waste Diversion		
	Relocation of iconic LAX signing and lighted pylons instead of disposing of them.	 

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5 Third-Party Rating

The project will be registered for ISI Envision verification, per any guidance. The project team has a target of Envision Gold verification.

Table 6. Envision Meetings, Workshops and Deliverables

Meetings, Workshops and Deliverables	Date
Envision Kick-off Meeting	June 18, 2024
Envision Assessment Workshop	July 10, 2024
Envision Assessment Report	July 25, 2024
Sustainability Management Plan Meeting	September 18, 2024
SMP Draft Issuance and Workplan	September 23, 2024
Project Registration	
Design Coordination	
Design Review Credit Development Packages	
ISI Verification Submittal Confirmation and Follow-up	
Post-Construction Submittal Guidance Document	
Post-Construction Credit Development Packages	
ISI Submittal Confirmation and Follow-up	

5.1 Envision Credit Summary

Based on results of discussion during the Envision assessment, the project is pursuing **XX** credits. To support each credit at the targeted level of achievement (LOA), a narrative will be developed to describe how the project meets the evaluation criteria. This is done using ISI-provided credit cover sheets. In addition to the narrative, supporting documentation for each evaluation criteria must be included to enable the Verifier (selected by ISI) to validate the LOA. For Pathway A, this process takes place for the design phase and is submitted after 95% design completion. Credits that will need to be confirmed after construction will be marked as "pending" in the scorecard. For credits marked "pending," narratives and additional supporting documentation will need to be submitted after 95% construction completion.

5.1.1 Envision Package Development

Based on the assessment, subsequent research and discussions, and associated costs, the project team will narrow the LOA range for each pursued credit. The Envision Lead has created a preliminary phasing plan to begin developing credit summaries based on types of documentation available throughout the design process. This allows the credit documentation process to be spread out over a period of time, depending on when the information is available to assist with documentation.

The Envision team will begin to gather documentation needed to complete credit summaries from various sources, including, but not limited to:

- Technical Memos
- Environmental Assessment

- Related plans
- Design documents
- Client policies, practices and standards

The project designated John Thomas as the designated point of contact (POC) for project documentation. This allows those creating credit packages to direct documentation requests to one person knowledgeable about that topic who can collect and provide documentation needed to successfully complete the Envision credit packages. The Envision Lead will organize credit documentation, facilitate quality reviews, and communicate with documentation providers to ensure the process stays on schedule. It is helpful to schedule regular status update calls to convey credit package progress and stay informed on project progress and changes that may affect the Envision documentation.

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6 Processes and Controls

6.1 Project Management

SFJV has developed a comprehensive Project Management Plan (PMP) that complies with local, state, and federal guidelines and requirements. The PMP defines the vision; implementation strategy; schedule and budget criteria; and the policies, procedures, and standards for the project. The PMP is the master reference document for the team and provides guidance to subconsultants engaged throughout the life of the program, from inception through planning, design, and construction. The PMP provides a level of continuity and standardization to facilitate time and cost-effective communications and decision-making. The PMP serves as a formal process to monitor risks, minimize costs, reduce scope creep, and identify potential schedule impacts.

The PMP includes:

- | | | |
|-----|---|---|
| • X | • | • |
| • X | • | • |
| • X | • | • |
| • X | • | • |
| • | | |

Add relevant information about project processes and information tracking systems, for schedule, resources, budgets, etc..

6.1.1 Quality Assurance

Quality control and quality assurance are outlined as part of the Program Wide Quality Assurance and Quality Control Plan which establishes the administrative and organizational framework for SFJV's quality program during the ATMP Roadway Improvements Project.

Add information about quality assurance as available.

Sustainability and Envision documents are reviewed by multiple members of the Envision team, and project team as needed. Quality Control is conducted consistently with Project Quality Control procedures. Sustainability requirements are included in project plans and specifications as warranted.

6.2 Envision Management

The project team uses a number of tools to manage Envision throughout the process.

Figure 11: Envision Process



Very early in the project, the Envision Lead facilitated a preliminary Envision assessment with the purpose of:

- Providing a preliminary evaluation of which level of achievement each Envision credit could potentially reach based on current plans/design
- Indicated documentation requirements for associated Envision credits and indicate where reference documents may already exist
- Provided high-level input for initial discussion regarding the level of effort required to achieve Envision verification
- Consider a "baseline" verification level for the project, as of now, without making substantial changes to designs or plans.
- Evaluate at a high-level what might be needed to increase the verification level.

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The assessment phase formed the foundation for all Envision-related activities. Using the Envision Credit Review Workbook, the project team reviews each credit to establish applicability and determine the potential LOA. The workbook is designed to allow the project team to set a “low” LOA as a baseline, considering what is known about the project at the time of the assessment. The project team can also select a “high” level of achievement based on potential opportunities discussed during the assessment. These opportunities can be related to design and construction decisions that haven’t been made, availability of documentation, or stretch goals that the project team will consider as the project moves forward. This assessment represents a preliminary review of Envision for the project, including a review of the project’s sustainable attributes, as well as the potential effort required to earn recognition through the Envision verification process.

The Envision Lead records the outcomes of the preliminary Envision assessment in an Assessment Summary Report, which includes potential improvement areas such as changes to processes, design or scope that will improve project sustainability and offer opportunities for the project to rate more favorably when verified with Envision. The items outlined are not required by Envision but meant to start conversations into the larger perspective of project and community sustainability.

Once the assessment is complete, the Envision team moves to an aligned effort to:

- Coordinate ongoing scope items and the documentation process
- Integrate sustainability and Envision criteria into the project
- Complete credit packages for verification submission

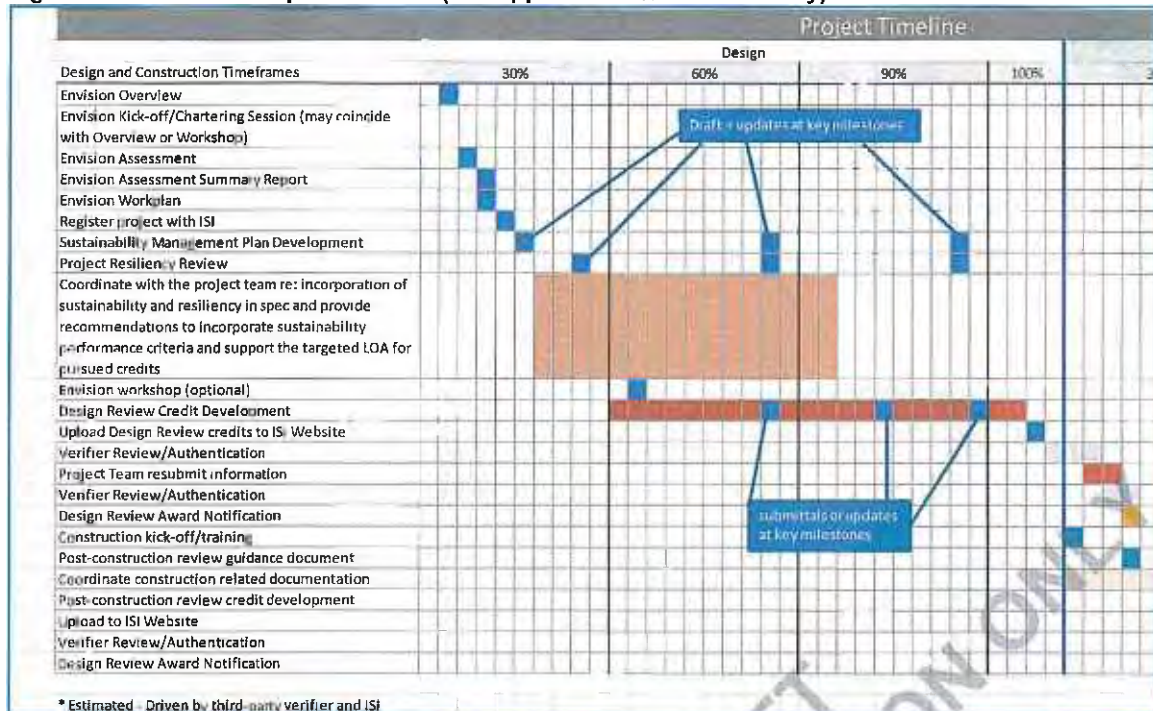
This portion of the process is the core of the Envision effort and progresses through the design phases. Coordination and integration include developing an Envision Workplan, registering the project with ISI, developing a Sustainability Management Plan (SMP), conducting a Resiliency Review Report (RRR) and coordinating with the project team to incorporate of sustainability and resiliency in specifications and provide recommendations to incorporate sustainability performance criteria and support the targeted LOA for pursued credits. An Envision Workshop is conducted with a select group of owner and project team to review and update the preliminary assessment, if the assessment was done very early in the project. The graphic below illustrates

Figure 12: Envision Credit Review Workbook Summary Tab

ISI ENVISION 3.0 CREDITS										
CREDIT	SUB CATEGORY	CREDIT NAME/NUMBER	LEVEL OF ACHIEVEMENT							
			0	1	2	3	4	5	6	7
ENVIRONMENTAL	ENVIRONMENTAL	EA.1.1 Improve Community Quality of Life	0	0	2	5	10	20		
		EA.1.2 Enhance Public Health and Safety	0	0	2	7	12			
		EA.1.3 Improve Construction Safety	0	0	2	5				
		EA.1.4 Minimize Noise and Vibration	0	0						12
		EA.1.5 Minimize Light Pollution	0	0	1	3	6	10	12	
		EA.1.6 Minimize Construction Impacts	0	0	1					
		EA.1.7 Improve Community Accessibility and Access	0	0	1	3	7			14
		EA.1.8 Encourage Sustainable Transportation	0	0		5	8	12		
		EA.1.9 Improve Access and Wayfinding	0	0	1	5				14
		EA.1.10 Advance Equity and Social Justice	0	0	1	6	10	14	18	
COMMUNITY	COMMUNITY	CA.1.1 Preserve Historic and Cultural Resources	0	0		2	7			18
		CA.1.2 Enhance View and Local Character	0	0	1	3	7			
		CA.1.3 Enhance Public Space and Amenities	0	0	1	3				14
		CA.1.4 Innovation (from 0 to 6 points)								4
		Maximum CE Points Excluded (n/a)								
		High								
		Low								
		CO.1.1 Provide Effective Leadership and Collaboration	0	0	2					
		CO.1.2 Foster Collaboration and Teamwork	0	0	2	5	12			
		CO.1.3 Provide Full Stakeholder Involvement	0	0	3	6	9	11	18	
ECONOMIC	ECONOMIC	ED.1.4 Pursue Byproduct Synergies	0	0	3	6	12	14	18	
		ED.1.5 Establish Sustainable Management Plan	0	0	4	7				18
		ED.1.6 Plan for Long-Term Resilience and Adaptation	0	0	4	6	9			12
		ED.1.7 Plan for Long-Term Resilience and Adaptation	0	0	2	5				12
		ED.1.8 Plan for End-of-Life	0	0	2	5	8			14
		ED.1.9 Stimulate Economic Prosperity and Development	0	0	3	6	12			
		ED.1.10 Develop Local Skills and Capabilities	0	0	2	4	8	12		
		ED.1.11 Conduct a Life Cycle Economic Evaluation	0	0	2	4				12
		ED.1.12 Innovation (from 0 to 6 points)								0
		Maximum LE Points Excluded (n/a)								
		High								
		Low								
ENERGY & CLIMATE	ENERGY & CLIMATE	EA.1.11 Support Sustainable Procurement	0	0	3					12
		EA.1.12 Use Recycled Materials	0	0	4					18
		EA.1.3 Reduce Operational Waste	0	0	4	7	10	14		
		EA.1.4 Reduce Construction Waste	0	0	4	7	10	15		
		EA.1.5 Reduce Earthwork On Site	0	0			4	6		
		EA.1.6 Reduce Operational Energy Consumption	0	0		12	18	26		
		EA.1.7 Reduce Construction Energy Consumption	0	0	3	4	8	11		
		EA.1.8 Use Renewable Energy	0	0	5	10	15	20	24	
		EA.1.9 Commission and Monitor Energy Systems	0	0	3	6	12	24		
		EA.1.10 Preserve Water Resources	0	0	3	5	7	5	12	
WATER	WATER	WA.1.1 Reduce Operational Water Consumption	0	0	4	9	13	17	22	
		WA.1.2 Reduce Construction Water Use	0	0	3	5	8			

a typical Envision project timeline and how it integrates with standard design project milestones. Items such as the Envision Credit Review Workbook, SMP, and PRR are updated regularly, but at a minimum around the significant project milestones to make sure they reflect any material changes in the project.

Figure 13: Envision Workplan Timeline (see Appendix B for Full Summary)



Credit packages are created based on a phased credit development schedule. This schedule outlines early development and review for credits that are not applicable or based on planning decisions, mid-project development and review for credits that do not need 95% design drawings and specifications, and later writing, compilation and review for credits that can't be documented until the drawings and specs are near final.

As the design progresses, the project team uses the Envision framework and SMP to make sure that the Project is meeting sustainability goals and striving to not only reduce impacts, but providing environmental, social and economic benefits to the community. Design discussions continue to reference Envision credits that can influence and improve design decisions and project solutions, including and beyond those listed originally outlined in the Assessment Summary Report.

As the project progresses, the Envision Lead organizes credit documentation, facilitates quality reviews, and communicates with documentation providers to ensure the process stays on schedule. Regular status calls are scheduled to convey credit package progress and stay informed on project progress and changes that may affect the Envision documentation.

The Envision Credit Review Workbook is used as a tool throughout the process to document Envision goals/LOAs, track action items, track credit development status, and outline discipline specific requirements.

6.2.1 Project Envision Verification

6.2.1.1 ENVISION PACKAGE DEVELOPMENT

Should LAWA decide to pursue a project verification, a narrative would be developed to describe how the project meets the evaluation criteria. This is done using ISI-provided credit cover sheets. In addition to the narrative, supporting documentation for each evaluation criteria must be included to enable the Verifier (selected by ISI) to validate the LOA. As described in 3.1.2.1 Pathways, documentation for the design phase can be submitted after 95% design completion.

If documenting for verification, the Envision Lead will draft a phasing plan to begin developing credit summaries based on types of documentation available throughout the planning and design process. This enables the credit documentation process to be spread out over a period, depending on when the information is available to assist with documentation.

To prepare for the possibility of documenting for verification, the Sustainability Management Team will gather potential documentation needed to complete credit summaries from various sources, including, but not limited to:

- Technical Memos
- Engineering Reports
- Project-related plans
- Stakeholder Engagement
- Design documents
- LAWA policies, practices, and standards
- Meeting presentations and minutes

The project designated John Thomas as LAWA's Envision Liaison and designated point of contact (POC) for project documentation. This allows a single path of communication for requesting documentation during the collection phase and allows staff creating credit packages to direct documentation requests to one person knowledgeable about that topic who can collect and provide documentation needed to successfully complete the Envision credit packages. The Envision Lead, Will Kirby with HDR, will help to organize credit documentation, facilitate quality reviews, and communicate about required documentation to help the process stay on schedule. The monthly leadership meetings can be used as provide an opportunity for status updates, stay informed on project progress and changes that may affect the Envision documentation, and convey deliverable and credit package progress.

7 Monitoring and Reporting

7.1 Design & Construction

Monitoring and reporting mechanisms are in place to track sustainability progress through design and construction, including:

- **Meetings:** Sustainability/Envision Coordination meetings include providing credit package progress/status updates, reviewing and responding to credit-related questions, providing updates or information on project progress, and/or changes that may impact the Envision documentation effort.
- **Sustainability KPIs** are revisited and monitored periodically through the design process at key design milestones.
- **A plan-do-check-act methodology** has been established to identify priorities, evaluate progress, and make adjustments to improve project sustainability performance. This plan is adaptable and flexible to manage changes in environmental, social, or economic conditions of the project over time.
 - **Plan:** Sustainability actions have been stated within this SMP.
 - **Do:** Ongoing sustainability efforts are reported at Sustainability Coordination and Sustainability Workgroup meetings and incorporated into overall project planning and design.
 - **Check:** project decisions are compared to KPI targets and measurements.
 - **Act:** Tracking and implementation of this SMP will continue through design and construction of all elements. Contractor guidance and required submittals will verify that sustainable performance measures are implemented during construction. Sustainability goals are reiterated to team members through construction plans, job briefings, contractor/subcontractor training, and/or orientation. Relevant KPIs are measured during and/or after construction.



Envision/sustainability requirements are communicated to contractors in the RFPs and specifications. Detailed guidance for integration, monitoring and documentation is included in:

- Contractor Envision Action Plan
- Construction Management Plan Envision Alignment Guidance
- Recycled Materials Forms
- Construction Waste Diversion Forms

Tracking and implementation of the SMP will continue through construction, including.

- Sustainability goals are communicated throughout the team through methods such as construction plans, daily job briefings, subcontractor orientations, or on-site field training sessions.
- Contractor activities and reporting/submittal requirements are incorporated into project documents.
- Project team reviews and documents all construction activities that may affect the projects sustainability elements.

7.2 Operations & Maintenance

The project is being planned, designed and constructed to align with **organization policy**. The project is part of **master plan or regional plan** which has objectives including:

- Green New Deal– pLAn
- LAX Landside Access Modernization Program
- Z

- Sustainability/resiliency incorporated into O&M planning/plan.
- Milestones for reviews
- Variables?

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Appendix A: Envision Workbook

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Appendix B: Envision Workplan Timeline

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Appendix 16 – Airport Operational Readiness & Commissioning Plan (PR-26)

(The Airport Operational Readiness & Commissioning plan was deferred to a future task order and shall be incorporated here upon completion.

Appendix 17 – Storm Water Pollution Prevention Plan (SWPPP)

Construction Stormwater Pollution Prevention Plan

Skanska - Flatiron

LAWA Airfield and Terminal Modernization Program (ATMP)

Roadway Improvements Project

Project Location

Los Angeles International Airport in Los Angeles County, California

WDID: TBD

RISK LEVEL 1

Legally Responsible Party (LRP)

Los Angeles World Airports
1 World Way West 3rd Floor, Los Angeles, CA 90045
(424) 646-6500

Project Address

Los Angeles International Airport (LAX)
1 World Way, Los Angeles, California 90045

Estimated Project Dates

Start of Construction: March 26, 2024
Completion of Construction: May 31, 2028

Contractor

SKANSKA | FLATIRON

1995 Agua Mansa Road Riverside, California 92509

Prepared by



SWPPP Preparation Date

September 10, 2024

QSD Name and Signature

Kurt Kroner, CPESC, QSD; (310) 474-1500

Table of Contents

Qualified SWPPP Developer.....	vi
Amendment Log.....	vii
Section 1 SWPPP Requirements	1
1.1 Introduction.....	1
1.2 Permit Registration Documents	1
1.3 SWPPP Availability and Implementation.....	2
1.4 SWPPP Amendments.....	2
1.5 Retention of Records.....	4
1.6 Reporting.....	5
1.7 Changes to Permit Coverage.....	6
1.8 Notice of Termination.....	6
Section 2 Project Information	8
2.1 Project and Site Description.....	8
2.1.1 Site Description.....	8
2.1.2 Existing Conditions.....	8
2.1.3 Existing Drainage.....	8
2.1.4 Geology and Groundwater	9
2.1.5 Project Description.....	10
2.1.6 Developed Condition	12
2.2 Permits and Governing Documents	12
2.3 Stormwater Run-On from Off-site Areas	12
2.4 Findings of the Construction Site Sediment and Receiving Water Risk Determination	12
2.5 Construction Schedule	14
2.6 Potential Construction Activity and Pollutant Sources.....	14
2.7 TMDL Requirements	15
2.8 Identification of Non-Stormwater Discharges	16
2.9 Required Site Drawings and Maps Information	17
Section 3 Best Management Practices	18
3.1 Schedule For BMP Implementation.....	18
3.2 Erosion and Sediment Control.....	19

3.2.1	Erosion Control	19
3.2.2	Sediment Controls.....	22
3.3	Non-Stormwater Controls and Waste and Materials Management	24
3.3.1	Non-stormwater Controls.....	24
3.3.2	Materials Management and Waste Management.....	27
3.4	Tmdl-Related Bmps	30
3.5	Post-Construction Stormwater Management Measures.....	30
3.5.1	Initial Site Restoration and Control Practices	31
3.5.2	Operation / Maintenance after Project Completion	32
Section 4	BMP Inspection and Maintenance	33
4.1	BMP Inspection and Maintenance	33
Section 5	Training	34
Section 6	Responsible Parties and Operators	35
6.1	Responsible Parties	35
6.1.1	Qualified SWPPP Developer (QSD)	35
6.1.2	Qualified SWPPP Practitioner (QSP) and QSP Delegate.....	35
6.2	Contractor List	36
Section 7	Construction Site Monitoring Program.....	37
7.1	Purpose.....	37
7.2	Applicability of Permit Requirements	37
7.3	Weather and Precipitation Event Tracking	37
7.3.1	Weather Tracking.....	37
7.3.2	Rain Gauges	38
7.4	Monitoring Locations.....	38
7.5	Monitoring Exemptions	38
7.6	Visual monitoring	38
7.6.1	Routine Observations and Inspections.....	39
7.6.2	Qualifying Precipitation Event Triggered Observations and Inspections.....	40
7.6.3	Visual Monitoring Procedures	41
7.6.4	Visual Monitoring Follow-Up and Reporting.....	42
7.6.5	Visual Monitoring Locations	42
7.7	Water Quality Sampling and Analysis.....	43

7.7.1	Sampling and Analysis Plan for pH, Turbidity and Non-Visible Pollutants in Stormwater Runoff Discharges	43
7.7.2	Sampling and Analysis Plan for pH and Turbidity in Receiving Water	49
7.7.3	Sampling and Analysis Plan for Dewatering Discharges	49
7.7.4	Sampling and Analysis Plan for Other Regional Water Board Required Pollutants	51
7.7.5	Training of Sampling Personnel	51
7.7.6	Sample Collection and Handling	51
7.8	ATS, PTS and Watershed Monitoring	53
7.9	Quality Assurance and Quality Control	54
7.9.1	Training of Sampling Personnel	54
7.9.2	Field Logs	54
7.9.3	Clean Sampling Techniques	54
7.9.4	Chain of Custody	54
7.9.5	QA/QC Samples	55
7.9.6	Data Verification	56
7.10	Record Retention	57
Section 8	References	58

List of Tables

Table 1-1.	List of Changes to be Field Determined	3
Table 2-1.	Applicable 303(d) List Impairments and TMDLs	9
Table 2-2.	Construction Site Estimates	12
Table 2-3.	Summary of Sediment Risk	13
Table 2-4.	Summary of Receiving Water Risk	13
Table 2-5.	Project TMDLs	15
Table 3-1.	BMP Implementation Schedule	18
Table 3-2.	Temporary Erosion Control CASQA BMP Selections	20
Table 3-3.	Sediment Control CASQA BMP Selections	22
Table 3-4.	Non-stormwater Control CASQA BMP Selections	25
Table 3-5.	Materials and Waste Management CASQA BMP Selections	28
Table 6-1.	QSP and QSP Delegate Authorized Inspections	36
Table 7-1.	Summary of Visual Monitoring and Inspections – Risk Level 1	39

Table 7-2. Potential Non-Visible Pollutants and Water Quality Indicator Constituents Based on the Pollutant Source Assessment	43
Table 7-3. Field Instruments	47
Table 7-4. Sample Collection, Preservation and Analysis for Monitoring pH, Turbidity and Non-Visible Pollutants	47
Table 7-5. TMDL NAL and NEL Exceedances	48

List of Appendices

Appendix A	General Vicinity Map and Site BMP Maps
Appendix B	Permit Registration Documents
Appendix C	SWPPP Amendment QSD Certifications
Appendix D	Submitted Changes of Information
Appendix E	Construction Schedule
Appendix F	Construction Activities, Materials Used, and Associated Pollutants
Appendix G	CASQA Stormwater BMP Handbook: Construction Fact Sheets
Appendix H	BMP Inspection Form
Appendix I	Training Reporting Form
Appendix J	Responsible Parties
Appendix K	Contractors and Subcontractors
Appendix L	Weather Reports
Appendix M	Monitoring Records
Appendix N	Example Storm Event Monitoring Forms
Appendix O	Field Meter Instruction
Appendix P	Active Treatment System and Passive Treatment Plans
Appendix Q	Construction General Permit
Appendix R	ATMP Construction Logistics Areas

Qualified SWPPP Developer

Approval and Certification of the Stormwater Pollution Prevention Plan

Project Name: LAWA Airfield and Terminal Modernization – Roadway Improvements

Project Number/ID: DA-5609

"This Stormwater Pollution Prevention Plan and its appendices were prepared under my direction to meet the requirements of the California Construction Stormwater General Permit (Order No. 2022-0057-DWQ). I certify that I am a Qualified SWPPP Developer in good standing as of the date signed below and will maintain up to date credentials for the duration of this project."

QSD Signature

Kurt Kroner

QSD Name

QSD

Title and Affiliation

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Email

Date

01267

QSD Certificate Number

(310) 474-1500

Telephone Number

Amendment Log

Project Name: LAWA Airfield and Terminal Modernization – Roadway Improvements

Project Number/ID: DA-5609

Amendment	Date	Brief Description of Amendment <i>(include section and page number)</i>	Prepared/Approved By
			Name: QSD#
			Name: QSD#
			Name: QSD#

SWPPP Amendment QSD Certifications are provided in Appendix C.

Section 1 SWPPP Requirements

1.1 INTRODUCTION

This Stormwater Pollution Prevention Plan (SWPPP) is designed to comply with California's *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (2022 CGP), State Water Resources Control Board (State Water Board) Order No. 2022-0057-DWQ (NPDES No. CAS000002) for Risk Level 1 Projects (Appendix Q). This SWPPP has been prepared following the 2023 CASQA Traditional SWPPP Template provided in the California Stormwater Quality Association (CASQA) Stormwater Best Management Practice (BMP) Handbook: Construction (CASQA 2023). The SWPPP also includes applicable requirements specified in LAWA Guidance Manual for Construction Stormwater Pollution Prevention – Part 1: Construction Stormwater Pollution Prevention Plan (SWPPP).

In accordance with the 2022 CGP, Section IV.O., this SWPPP is designed to address the following:

- Identification of all pollutants, their sources and control mechanisms, including sources of sediment associated with all construction activities, e.g., sediment, paint, cement, stucco, cleaners and site erosion.
- Pollutant source assessments, including a list of potential pollutant sources and identification of site areas where additional BMPs are necessary to reduce or prevent pollutants in stormwater and authorized non-stormwater discharges, per the minimum requirements defined in the 2022 CGP when developing the pollutant source assessment.
- Description of site-specific BMPs implemented to reduce or eliminate stormwater pollution.
- Where not otherwise required to be under a Regional Water Quality Control Board (Regional Water Board) permit, all non-stormwater discharges are identified and either eliminated, controlled or treated.
- Site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges during construction to the Best Available Technology/Best Control Technology (BAT/BCT) standard.

The Los Angeles International Airport (LAX) is a world-class airport that serves as the primary airport for the greater Los Angeles area. The scope of the project covered under this SWPPP is only the Roadway Improvements portion of the Los Angeles World Airport (LAWA) Airfield and Terminal Modernization Program (ATMP). The project area comprises approximately 52.82 acres, of which nearly all areas will be disturbed. The project is bounded by the existing Sky Way to the west, the future Terminal 9 to the south, future Jetway Boulevard to the east, and 94th Street to the north in Los Angeles, California. The property is owned by LAWA and is being developed by Skanska-Flatiron Joint Venture (SFJV). The project's location is shown in Appendix A.

1.2 PERMIT REGISTRATION DOCUMENTS

Required Permit Registration Documents (PRDs) shall be submitted to the State Water Board via the Stormwater Multiple Application and Report Tracking System (SMARTS) by the LRP or Duly Authorized Representative (DAR). The project-specific PRDs include, as applicable:

1. Notice of Intent (NOI)

2. Risk Type Determination (Construction Site Sediment and Receiving Water Risk Determination)
3. Site Drawings and Maps
4. SWPPP
5. Applicable plans, calculations and other supporting documentation for compliance with the Phase I or Phase II municipal separate storm sewer system (MS4) post-construction requirements or the post-construction standards of the 2022 CGP:
 - a. Attachment or web-source containing the applicable Phase I or Phase II MS4 post construction requirements
 - b. The post-construction plans and calculations submitted to or approved by the applicable Phase I or Phase II MS4
 - c. Post-construction water balance calculation
6. Active Treatment System (ATS) Plan and Passive Treatment Plan, if applicable
7. Dewatering Plan, if applicable
8. Annual Fee per the current 23 California Code of Regulations Chapter 9 fee schedule for National Pollutant Discharge Elimination System (NPDES) stormwater permits
9. Signed Certification Statement (LRP Certification is provided electronically with SMARTS PRD submittal).

Site maps can be found in Appendix A. A copy of the submitted PRDs shall also be kept in Appendix B along with the Waste Discharge Identification (WDID) confirmation.

1.3 SWPPP AVAILABILITY AND IMPLEMENTATION

The SWPPP will be available at the construction site during working hours while construction is occurring and shall be made available upon request by a federal, state, or municipal inspector. A current copy of the SWPPP and any site inspection reports required by the 2022 CGP may be kept in electronic format at the site so long as the information requested by a federal, state, or municipal inspector can be made available during an inspection. All maps are legible and available in hard copy at the site in accordance with 2022 CGP Section IV.O.1.

The SWPPP must be implemented at the appropriate level to protect water quality at all times throughout the life of the project. The SWPPP must remain on the site during construction activities, commencing with the initial mobilization and ending with the termination of coverage under the 2022 CGP.

1.4 SWPPP AMENDMENTS

SWPPP changes or amendments will be uploaded to SMARTS within 30 calendar days. The SWPPP should be revised when:

- There is a 2022 CGP violation (2022 CGP Section VI.Q.1)
- There is a reduction or increase in total disturbed acreage (2022 CGP Section III.F.2. and F.4)

- BMPs are not effective and are not resulting in a reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges (2022 CGP Section VI.Q.1 and Attachment F Section III.C.5)
- There is a change in the project duration that changes the project Risk Level (2022 CGP Section III.F.1)
- Dischargers with projects where all construction activities (including passive treatment, active treatment systems, and/or active equipment) will be suspended for 30 days or more (2022 CGP Section III.G)

Additionally, the SWPPP will be amended when:

- There is a change in construction or operations that may affect the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4) (2022 CGP Section IV.O and VI.Q.1), or when deemed necessary by the QSD.

The QSD has determined that the changes listed in Table 1-1 can be field determined by the QSP. All other changes will be made by the QSD as formal amendments to the SWPPP. The 2022 CGP requires that the QSD revise the SWPPP to address potential problems identified by visual inspections, sampling data, comments from a QSP or their own site observations (2022 CGP Section V.C.2).

The following items shall be included in each amendment:

- Who requested the amendment
- The location of proposed change
- The reason for change
- The original BMP(s) proposed, if any
- The new BMP(s) proposed
- QSD Certification

SWPPP amendments will be logged at the front of the SWPPP and SWPPP Amendment QSD certifications will be located in Appendix C. The SWPPP text will be revised, replaced and/or hand annotated as necessary to properly convey the amendment. SWPPP amendments must be made by a QSD. The following changes have been designated by the QSD as “to be field determined” and constitute minor changes that the QSP may implement based on field conditions.

Table 1-1. List of Changes to be Field Determined

Candidate Changes for Field Location or Determination by QSP¹	Field Located or Field Determined by QSP
Increase quantity of an Erosion or Sediment Control Measure	<i>To be determined by QSP</i>
Relocate/add stockpiles or stored materials	<i>Per site condition and construction schedule; QSP to determine on-site as construction schedule progresses.</i>
Relocate or add toilets	<i>Per site condition and construction schedule; QSP to determine on-site as construction schedule progresses.</i>

Candidate Changes for Field Location or Determination by QSP¹	Field Located or Field Determined by QSP
Relocate vehicle storage and/or fueling locations	<i>Per site condition and construction schedule; QSP to determine on-site as construction schedule progresses.</i>
Relocate areas for waste storage	<i>Per site condition and construction schedule; QSP to determine on-site as construction schedule progresses.</i>
Relocate water storage and/or water transfer location	<i>Contractor and QSP need to coordinate together.</i>
Changes to access points (entrance/exits)	<i>Per site condition and construction schedule; QSP to determine on-site as construction schedule progresses.</i>
Change type or location of Erosion or Sediment Control BMPs	<i>Contractor and QSP need to coordinate together.</i>
Minor changes to schedule or segments	<i>Contractor to provide information to QSP, QSD, and LRP</i>
Changes in construction materials	<i>Contractor and QSP need to coordinate together.</i>
<i>(1) Any field changes not identified for field location or field determination by the QSP must be made as an amendment by the QSD.</i>	

The required standards for amending the SWPPP include:

- Submit sections of the SWPPP that are changed using redline/strikeout format for changing or updating the text, per LAWA requirement.
- When a Change-of-Information (COI) is required (i.e., adding or removing acreage, revising the dates, new ownership, etc.), the information (including) the amendment language) needs to be submitted to LAWA PM for uploading into the SMARTS database and obtaining the LRP certification for submission prior to Board approval. Other amendments that do not trigger a COI, do not require LRP approval.
- Update the amendment log. Place the appropriate notice of approval(s) into Appendix C along with the amendment.
- Each amendment shall be a single line item on the Amendment Log Form. Following the amendment log shall be the information supporting the sections listed in the “brief description of Amendment, include section and page number” column of the log.

1.5 RETENTION OF RECORDS

Paper or electronic records of documents required by this SWPPP shall be retained for a minimum of three years from the date generated or date submitted, whichever is later, for the following items. Additionally, at the completion of the project the SWPPP documents shall be submitted to the LAWA PM for retention.

- SWPPP
- Visual monitoring reports
- Sampling equipment calibration records
- pH and turbidity sampling field sheets
- Analytical laboratory reports

These records shall be available at the site until construction is complete. Records assisting in the determination of compliance with the 2022 CGP will be made available within a reasonable time to the Regional Water Board, State Water Board or U.S. Environmental Protection Agency (EPA) upon request. Requests by the Regional Water Board for retention of records for a period longer than three years shall be adhered to.

1.6 REPORTING

Completed inspection checklists are not required to be submitted to the Regional Water Board. However, completed inspection checklists will be kept with the SWPPP onsite or electronically. The 2022 CGP requires that permittees prepare, certify and electronically submit an Annual Report through SMARTS no later than September 1 of each year. Reporting requirements are identified in 2022 CGP Section IV.P. Annual reports will be filed in SMARTS and in accordance with information required by the online forms. The following information, at a minimum, shall be provided to the LRP's Data Submitter prior to August 15 or prior to filing the NOT, for the annual reporting purposes:

- A digital copy of all required inspection reports including weekly and quarterly inspections, as well as storm inspections (pre-storm, during-storm, post-storm as applicable).
- If any inspections were performed by a person other than the designated QSP, provide a copy of the training log identifying the inspector as properly trained by the QSP.
- If applicable, explanations for any of the following conditions:
 - Any Permit-required inspections that were not performed
 - BMP maintenance/repair or design changes that were not initiated within 72 hours of being identified/reported
 - Non-visible pollutant or non-storm water sampling occurrences (include all laboratory data reports)
- Report of any authorized or unauthorized non-storm water discharge; include date and time of observation.
- By August 1 each year and at project completion, submit to the LAWA PM, a completed hand marked version of the SMARTS Annual Report. Also include digital copies of the summary and evaluation of all sampling and analysis results, original laboratory reports, chain of custody forms, a summary of all corrective actions taken during the compliance year, and identification of any compliance activities or corrective actions that were not implemented.

Planned changes in site construction activities that may result in non-compliance with the 2022 CGP are required to be provided in writing to the Regional Water Board and local stormwater agency prior to changes.

If a 2022 CGP discharge violation occurs, the QSP will immediately notify the LRP. The LRP will include information on the violation with the Annual Report. Corrective measures will be implemented immediately following identification of the discharge or written notice of non-compliance from the Regional Water Board. Discharge and corrective actions must be documented and include the following items:

- The date, time, location, nature of operation and type of unauthorized discharge
- The cause or nature of the notice or order
- The BMPs deployed before the discharge event or prior to receiving notice or order
- Receiving the notice or order, including additional measures installed or planned to reduce or prevent re-occurrence

Results of non-visible pollutant monitoring and corrective actions will be electronically submitted within 30 days after obtaining analytical results or within 10 days if the analytical results demonstrate the exceedance of an applicable Total Maximum Daily Loads (TMDL)-related Numeric Action Level (NAL) or Numeric Effluent Limitation (NEL) or Basin Plan parameter.

A NAL exceedance report will be prepared when requested, in writing, by the Regional Water Board. In the event of a TMDL NEL exceedance, by the end of each reporting year the project will submit and certify, in SMARTS, documentation of the site assessment, SWPPP evaluation and implementation of the corrective actions.

The Regional Water Board will be notified via email 24 hours prior to the beginning of a planned dewatering discharge. In the event of an emergency dewatering, the Regional Water Board and applicable MS4 are to be notified within 24 hours of a discharge occurring. An emergency is defined as the need to protect human life and health or prevent severe property damage. Results of pH and turbidity monitoring will be submitted in the Annual Report.

See Section 7.7 for additional discussion of the reporting requirements.

1.7 CHANGES TO PERMIT COVERAGE

The 2022 CGP allows for the reduction or increase of the total acreage covered under the 2022 CGP when: a portion of the project is complete and/or conditions for termination of coverage have been met; when ownership of a portion of the project is purchased by a different entity; or when new acreage is added to the project.

Modified PRDs will be filed electronically through a Change of Information (COI) within 30 days of a reduction or increase in total disturbed area if a change in permit covered acreage is to be sought. The SWPPP will be modified appropriately and will be logged at the front of the SWPPP. SWPPP Amendment QSD Certification will be located in Appendix C. COIs submitted electronically via SMARTS can be found in Appendix D. COIs will be submitted to the LAWA PM.

1.8 NOTICE OF TERMINATION

A Notice of Termination (NOT) must be submitted electronically by the LRP or DAR via SMARTS to terminate coverage under the 2022 CGP. According to the requirements of 2022 CGP Section III.H.4.h., the following final stabilization method will be used to satisfy final stabilization condition requirements:

- 70 percent final cover method supported by pre- and post- project photographs demonstrating stabilization.
- Revised Universal Soil Loss Equation (RUSLE or RUSLE2) method with computation proof supported by pre- and post- project photographs demonstrating stabilization.
- Custom method for which Regional Water Board approval has been obtained, supported by documentation required by the Regional Water Board and pre- and post- project photographs demonstrating stabilization.

The Regional Water Board will consider a construction site complete when the conditions of the 2022 CGP, Section III.H, have been met. The discharger is required to submit the following in SMARTS:

- NOT SMARTS Form
- QSP-prepared final NOT inspection which includes the QSP name and valid QSP certificate number
- Final site map with photo orientation references
- Photos demonstrating final stabilization and applicable post-construction BMPs and/or low impact development
- A long-term maintenance plan for the post-construction stormwater runoff BMPs and/or low impact development features being implemented

According to the 2022 CGP, the NOT will be automatically approved within 30 calendar days after the date the NOT was submitted, unless, within the 30 calendar days the Regional Water Board notifies the discharger through SMARTS that the NOT has been denied, returned, or accepted for review (2022 CGP Section III.H.7).

Note: If an Annual Report has not been filed in the current reporting year, an Annual Report will need to be submitted prior to the NOT.

Section 2 Project Information

2.1 PROJECT AND SITE DESCRIPTION

2.1.1 Site Description

The ATMP – Roadway Improvements Project is Risk Level 1 that comprises approximately 52.82 acres. This area is roughly estimated from the Google Earth Map and will be updated when more specific information is provided by LAWA or SFJV. It is bounded by the existing Sky Way to the west and Aviation Boulevard to the east. To the north is Westchester Parkway and to the south is the Imperial Highway. Construction work will include the demolition and construction of new driveways, curb cuts, and ramps. Roadway construction and demolition will occur from Sepulveda Boulevard and Century Boulevard leading up to the Central Terminal Area (CTA). The project is located approximately 3.6 miles northwest from Dominguez Channel. The center of the Project site is approximately located at Latitude 33.94720 degrees N and Longitude 118.39623 degrees W.

2.1.2 Existing Conditions

As of the initial date of this SWPPP, the project area is in a highly urbanized area with extensive human disturbance including pavement, tall buildings, roads, parking garages and multi-lane roadways. The proposed roadway improvement locations are primarily covered with impervious surfaces. Numerous, significant utility structures run through the project area including water lines, sewer lines, natural gas lines, fuel lines, electrical lines and private communication lines.

The Project will construct new elevated roadways to direct the inbound and outbound traffic to CTA from Sepulveda Boulevard and Century Boulevard and improves traffic congestion on these major local and regional highways. 96th Street will be modified to receive and send traffic from and to Sepulveda Boulevard via the Sepulveda Blvd/96th Street intersection. The return to departure and arrival access roads will also be reconstructed. Existing inbound and outbound ramps to the CTA along with the 96th Street Bridge over Sepulveda Blvd will be removed.

Environmental concerns include the northwest corner of Century Boulevard and Sepulveda Boulevard. At this location, 13 underground storage tanks were removed from the site under the direction of regulatory agencies. Soil contamination from historic jet fuel operations resulted in detectable concentrations of halogenated VOCs and 1,4 dioxane in the soil. The site is currently being remediated using soil vapor extraction systems.

2.1.3 Existing Drainage

The project area elevation is between approximately 95 to 123 feet above mean sea level (AMSL). The site is geographically located within two Watershed Management Areas (WMA). On the east side of the Sepulveda Boulevard is the Dominguez Channel WMA. The Dominguez Channel leads to Los Angeles Harbor. West of Sepulveda Boulevard is the Santa Monica Bay WMA. Both watersheds are under the jurisdiction of the California Regional Water Quality Control Board, Los Angeles Region, NPDES Permit No. CAS004001 (Order No. R4-2012-0175). The watersheds drain westerly and southeasterly rendering Sepulveda Boulevard as the ridge line between the two watersheds. This indicates that little site flow will be entering our project site. Existing drainage facilities within the project footprint are described below:

- **96th Street Trunkline** – 30" to 42" reinforced concrete pipe (RCP) owned and maintained by the City of Los Angeles
- **98th Street Trunkline** – 42" RCP owned and maintained by the City of Los Angeles
- **West Century Blvd Trunkline** – 6' x 4' reinforced concrete box (PCB) owned and maintained by LAWA. This facility is within the parkway area along Century Blvd between the CTA and Airport Road. It is very shallow (6 inch cover in places) and will create issues with the proposed enabling project along Century Blvd. identified in the Project Requirement.
- **World Way South Trunkline** – Size, material, and is unknown. Ownership of this line is being confirmed but is likely LAWA as it exists within the LAWA roadway.
- **Sky Way** – 11' x 4.5' RCB owned and maintained by LAWA.

The proposed storm drainage improvements of this project will preserve existing facilities to the maximum extent practicable. As such, connections to existing public owned systems are expected throughout the project. In instances where connections are made into an existing system owned and maintained by Los Angeles County Flood Control District (LACFCD), such as the 96th Street Trunkline mentioned above, a permit will be required. LACFCD requires new stormdrain connections to design for an allowable discharge flow rate determined by their agency.

No federally protected wetlands, floodplains, or waters of the United States exist on the project area. Therefore, there would be no effect on wetlands and waters of the United States at these locations and no specific mitigations would be required.

The water quality impairments (303(d) list and TMDLs identified in the 2022 CGP Table H-1) for the receiving waters are identified in Table 2-1.

Table 2-1. Applicable 303(d) List Impairments and TMDLs

Receiving Water	Water Quality Impairment	
	303(d) list	TMDL (2022 CGP Table H-1)
Santa Monica Bay	Dichlorodiphenyltrichloroethane (DDT), Arsenic, Polychlorinated, Biphenyls (PCBs), Mercury, and Trash	DDT, PCBs, and Bacteria
Dominguez Channel	Copper, Bacteria, Lead, Toxicity, and Zinc	Total Copper, Total Lead, and Total Zinc

2.1.4 Geology and Groundwater

The project area is situated in the El Segundo Sand Hills physiographic region of the West Coast Groundwater Basin and is also referred to simply as the West Coast Basin (DWR 1961). The West Coast Basin extends westerly from the Newport-Inglewood fault zone and associated uplifted land surface on the east to Santa Monica Bay on the west, the Palos Verdes Hills and San Pedro Bay on the south and approximately to the Orange County line on the southeast. The El Segundo Sand Hills region is a roughly three- to four-mile-wide strip of land adjacent to the coast extending from Playa Del Rey and Westchester on the north to Palos Verdes Peninsula on the south. The Torrance Plain borders the El Segundo Sand Hills on the East. The site is situated in the northerly portion of the El Segundo Sand Hills physiographic region.

The El Segundo Sand Hills are underlain by deposits of the Older Dune Sand and Lakewood Formation geologic units. According to DWR (1961), the Older Dune Sand has been tilted, weathered, eroded and altered by leaching and cementation processes. Hydrogeologic divisions of the Lakewood Formation from younger to older in the project area include the Semi-perched aquifer, the Bellflower aquiclude and the Gage aquifer. The Semi-perched aquifer and the Bellflower aquiclude are dominated by fine-grained deposits. The underlying Gage aquifer consists mainly of sand and gravel beds with interbeds of silt and clay. In the project area the Older Dune Sand and Semi-perched aquifer may contain local areas of perched groundwater but not of sufficient quantities to be a usable resource. The depth to the top of the Gage aquifer in the project area is variable but is estimated to be on the order of 80 feet below ground surface.

A 2019 groundwater investigation at a nearby site reported depths to groundwater within the Gage aquifer ranging from 90 to 100 feet (Wood, 2019). While depths to groundwater vary with location and time, these data are likely to be fairly representative of conditions at the project location.

2.1.5 Project Description

The ATMP – Roadway Improvements Project will construct new elevated roadways to direct the inbound and outbound traffic to CTA from Sepulveda Boulevard and Century Boulevard and improves traffic congestion on these major local and regional highways. 96th Street will be modified to receive and send traffic from and to Sepulveda Boulevard via Sepulveda Boulevard/96th Street intersection. The return to departure (upper level) and arrival (lower level) access roads will also be reconstructed. Existing inbound and outbound ramps to the CTA along with the 96th Street Bridge over Sepulveda Boulevard will be removed. Upon the completion of the project, the percentage of impervious area will be approximately 98 – 100% since there will be all paved roadways.

The following is a detailed list of the different segments improvements:

- **Proposed Segment A:** New roadway at grade and bridge from just south of the existing Lincoln Blvd/Sepulveda Blvd intersection to provide southbound traffic access to the CTA. This alignment varies from two to three lanes and is grade separated above Sepulveda Blvd, 98th Street, and Century Blvd.
- **Proposed Segment C:** New roadway at grade and bridge from the existing Sepulveda Blvd/96th Street intersection to carry the northbound Sepulveda Blvd traffic to the CTA via merging in Segment A. This alignment is two lanes and is grade separated to cross over Segments F and D.
- **Proposed Segment D:** New roadway at grade and bridge to carry the outbound CTA traffic via Segments K and W to southbound Sepulveda Blvd. This alignment varies from one to three lanes and is grade separated above 98th Street, below Segments C and A, and above Sepulveda Blvd.
- **Proposed Segment E:** Modifications to 96th Street roadway to provides access from the Jetway Blvd/96th Street intersection to northbound Sepulveda Blvd. This alignment is one at-grade lane.
- **Proposed Segment F:** Modifications to 96th Street roadway to provide access from northbound Sepulveda Blvd to the Jetway Blvd/96th Street intersection and ITF West. This alignment varies from one to two at-grade lanes.

- **Proposed Segment G:** New roadway at grade and bridge to provide access for outbound CTA to northbound Sepulveda Blvd via Segment D. This alignment is one lane grade separated over 96th Street (Segments E and F) and the driveway to the LAX City Bus Center.
- **Proposed Segment I:** New roadway at grade and bridge to provide access from westbound Century Blvd to the CTA arrival level by joining to the existing N. World Way. This alignment is two lanes grade separated over Sepulveda Blvd and Segment D.
- **Proposed Segment K:** New roadway at grade and bridge connecting Segment L and Center Way to Segment D, to provide CTA outbound access to both northbound and southbound Sepulveda Blvd. This alignment is three lanes and is grade separated under Segment L, and over Segments N, Sepulveda Blvd and Century Blvd.
- **Modified Segment L:** The existing structure connects CTA departures level to Segment K and provides CTA outbound access to northbound and southbound Sepulveda Blvd will be modified by widening the structure from one to two lanes. This structure crosses over Segments P and K.
- **Modified Segment L1:** The existing structure from Segment L to CTA provides for the departure-to-departure return movement. This alignment remains at one lane and is grade separated over Segment N and may need some modifications due to the proposed widening of Segment L.
- **Proposed Segment M:** New bridge from CTA departures level joining Segment P with final destination of eastbound Century Blvd. This alignment varies from one to two lanes and is grade separated over Segment N and Sepulveda Blvd.
- **Proposed Segment N:** New at grade roadway to provide arrival-to-arrival level return movement to CTA. This alignment is one lane and crosses under Segments L, M, P, K, and L1 bridges.
- **Proposed Segment NE:** New at grade roadway providing direct connection from northbound Sepulveda Blvd to Century Blvd via Segment P. It also provides access to future Terminal 9. This alignment is one lane and crosses under Segment W bridge.
- **Proposed Segment P:** New at grade roadway and bridge from CTA outbound arrivals level to Century Blvd. This alignment varies from three to five lanes and is grade separated crossing under Segment L, and over Segments N and D, and Sepulveda Blvd.
- **Proposed Segment W:** New bridge from CTA departures level to provide access to northbound and southbound Sepulveda Blvd via Segment D. This alignment facilitates a pending connection to Terminal 9 roadways, which will be designed by others. This alignment varies from one to two lanes and is grade separated crossing over Sepulveda Blvd, Segment NE, and Century Blvd.

Project cut and fill grading will occur on approximately 52.82 acres of the project, which comprises approximately 100% percent of the total area. The limits of grading will be provided for the future SWPPP submittal. Locations and types of stockpiles will be identified in a subsequent site logistic plan after the Basis of Design (BOD) preferred alternative is selected. Stockpiles will be planned and managed to comply with environmental requirements and to eliminate/avoid risk to LAWA operations.

SFJV will provide a construction field office in the ATMP staging and laydown area for LAWA's sole use. SFJV will also prefer to have a construction project management field office located within the staging and laydown area site. Field offices and staging/laydown areas for each phase are provided in Appendix R – ATMP Construction Logistics Areas.

2.1.6 Developed Condition

Final site BMPs conditions will consist of the following:

- Re-establish uniform coverage equaling 70% of the pre-construction vegetative conditions; where preconstruction vegetation covers less than 100% of the surface, such as in arid areas, the 70% coverage criteria is adjusted as follows: if the preconstruction vegetation covers 50% of the ground surface, 70% of 50% would require 35% total uniform surface coverage.

For the area of development post-construction drainage will be directed to on-site drains, planter drains, catch basins, and side catch basins will direct through existing storm drain pipe. Ultimately water is discharged into either Santa Monica Bay or the Dominguez Channel. Dominguez Channel Subbasin is governed by the LA County MS4 Permit as run-off is conveyed by City of Los Angeles Department of Sanitation storm drain lines. Completion of the ATMP – Roadway Improvements Project is estimated to result in a slight increase of impervious area.

Table 2-2. Construction Site Estimates

Total Area	52.82 acres
Percent Impervious before Construction	95%
Runoff Coefficient before Construction	0.85 – 0.90
Percent Impervious after Construction	98%
Runoff Coefficient after Construction	0.90 – 0.95

2.2 PERMITS AND GOVERNING DOCUMENTS

In addition to the 2022 CGP, the following documents were considered while preparing this SWPPP:

- Regional Water Board requirements
- Basin Plan requirements
- Contract Documents

2.3 STORMWATER RUN-ON FROM OFF-SITE AREAS

Stormwater run-on from areas adjacent to the construction sites will be mitigated with existing roadway curbs, stormdrain collection systems, parking area drain inlets, or implementation of perimeter berm or barriers. Any stormwater run-on not mitigated by the prior list will be managed with the installation of BMPs. Methods include use of dikes (or berms) and swales.

2.4 FINDINGS OF THE CONSTRUCTION SITE SEDIMENT AND RECEIVING WATER RISK DETERMINATION

A risk level determination has been performed using 2022 CGP Attachment D.1 procedures and the project is classified as Risk Level 1. The copy of the risk level determination submitted on SMARTS with the PRDs is included in Appendix B.

Erosivity (R) values were calculated via the low erosivity calculator at <https://lew.epa.gov/> in accordance with the State Water Board Guidance for multi-year projects at:

https://www.waterboards.ca.gov/water_issues/programs/stormwater/smarts/construction/docs/rfactor_guide.pdf

Tables 2-3 and 2-4 summarize the sediment and receiving water risk factors, respectively.

Table 2-3. Summary of Sediment Risk

RUSLE Factor	Value	Method for Establishing Value
R	149.07	USEPA Rainfall Erosivity Factor Calculator for Small Construction Sites
K	0.20	SWRCB K Factor Map
LS	0.41	LS Factors for Construction Sites – Table from Renard et. al., 1997
Total Predicted Sediment Loss (tons/acre)	12.22	R x K x LS
Overall Sediment Risk Low Sediment Risk < 15 tons / acre Medium Sediment Risk >= 15 and 75 tons / acre High Sediment Risk >= 75 tons / acre		Low

The time dependent R factor was calculated using March 26, 2024 and May 31, 2028 for the dates of initial earth disturbance and final stabilization, respectively. The dates correspond to the estimated start and end of ATMP – Roadway Improvements related construction and demolition work.

Table 2-4. Summary of Receiving Water Risk

Receiving Water	303 (d) – Listed for Sediment Related Pollutant	Beneficial Uses of COLD, SPAWN, and MIGRATORY	TMDL for Sediment Related Pollutant
Dockweiler Beach (Santa Monica Bay)	Arsenic, DDT, Mercury, PCBs, and Trash	Only SPAWN	No
Dominguez Channel	Copper, Indicator Bacteria, Lead, Toxicity, Zinc	No	No
Overall Receiving Water Risk			Low

The narrative effluent limitations require stormwater and authorized non-stormwater discharges to not contain a hazardous substance greater than or equal to reportable quantities established in 40 CFR Sections 117.3 and 302.4. Controls, structures and best management practices shall be implemented to minimize or prevent pollutants in stormwater and authorized non-stormwater

discharges associated with the construction activity. This SWPPP has been prepared to address Risk Level 1 requirements (2022 CGP Attachment D).

Projects that discharge to a water body and/or watershed listed in Table H-2 of 2022 CGP are subject to both the narrative and numeric effluent limitations imposed by the TMDL requirements in Attachment H of 2022 CGP. NEL and NAL applicable to this project are listed in Table 2-5. This SWPPP has been prepared to address the TMDL requirements (2022 CGP Attachment H).

2.5 CONSTRUCTION SCHEDULE

The overall construction schedule, as well as the start and end dates for each element are provided in Appendix E. Stormwater pollution prevention measures shall be implemented throughout the entire duration of the construction activities as prescribed in this SWPPP. The project sediment risk was determined based on construction taking place March 26, 2024 to May 31, 2028. Modification or extension of the schedule (start and end dates) may affect risk level determination and permit requirements. The QSD will be made aware of schedule changes during construction to address potential impact to the SWPPP.

The sequences and durations for progressing construction stages are presented below:

- **Stage 1 – Early Work**
 - 8 months after start of Early Work
- **Stage 2 to 4 – Offline Segment Construction (CTA Inbound from NB and SB Sepulveda Blvd.)**
 - 18 months from end of Stage 1
- **Stage 2 to 4 – Offline Segment Construction (CTA Departures Outbound to T-9 & 96th St.)**
 - Segment D to north of Century Blvd.
 - 31 months from start of Stage 2
 - Segment D superstructure along Jetway Blvd.; Segments W, G, E and F; Sepulveda Blvd. widening; Open traffic to 96th St. from Segments W/D/E/F/G
 - 20 months from end of Stage 1
- **Stage 5 – Major Demolition and Segment Construction**
 - Demolition
 - 2 months after end of Stage 2 opening of traffic to 96th St.
 - Segments P, K, L and N; Segment D from Century Blvd to SB Sepulveda Blvd. gore; Open Segments K and P to traffic with P in interim condition; Open Segments L and N to traffic; Open Segment D on-ramp to SB Sepulveda Blvd.
 - 12 months after end of Stage 5 demolition sequence
- **Stage 6 – Major Demolition & Segment Construction**
 - Demolish existing WWS over Sepulveda Blvd., existing EB Century Blvd. to NB Sepulveda Blvd. loop ramp and existing EB Century Blvd. over Sepulveda Blvd. Construct Segments NE and M
 - 7 months after end of Stage 5

2.6 POTENTIAL CONSTRUCTION ACTIVITY AND POLLUTANT SOURCES

Appendix F includes a list of construction activities and associated materials that are anticipated to be used onsite as well as the pollutant source assessment form that was completed for the project.

These activities and associated materials will or could potentially contribute to pollutants (other than sediment) to stormwater runoff.

The anticipated activities and associated pollutants were used in Section 3 to select the Best Management Practices (BMPs) for the project. Locations of anticipated activities and associated BMPs will be included in the Site Maps.

Additionally, proper measures will be taken to ensure that trench spoils or any other soils disturbed during construction activities that are contaminated are not discharged with stormwater or non-stormwater discharges into storm drains or water bodies (except pursuant to a separate NPDES Permit). If contaminated soils are found onsite and the responsible party cannot be identified or fails to take action, soils will be sampled to determine proper handling and protect public safety. The appropriate local, State and federal agencies along with the appropriate Regional Water Board will be notified when contaminated soils are observed.

The sampling requirements for non-visible pollutants associated with construction activity are provided in Section 7.7.1. For a full and complete list of onsite pollutants, refer to the Safety Data Sheets (SDS) which are retained onsite at the construction trailer.

2.7 TMDL REQUIREMENTS

Based on the project's receiving water and the pollutant source assessment, the following TMDLs are applicable to the project (See 2022 CGP Attachment H).

Table 2-5. Project TMDLs

TMDL	Applicable Water Body/Watershed	Pollutants	Additional TMDL Related NAL or NEL	Compliance Actions
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel	Total Copper	Interim NAL of 0.20751 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in the 2022 CGP Attachment H Section I.G.3
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel	Total Lead	Interim NAL of 0.12288 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in the 2022 CGP Attachment H Section I.G.3
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel	Total Zinc	Interim NAL of 0.89887 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in the 2022 CGP Attachment H Section I.G.3

TMDL	Applicable Water Body/Watershed	Pollutants	Additional TMDL Related NAL or NEL	Compliance Actions
Santa Monica Bay Beaches Bacteria TMDL	Santa Monica Bay Watershed Management Area	Enterococcus, Fecal Coliform, Total Coliform	None	Comply with General Permit and the additional Bacteria TMDL Requirements in the 2022 CGP Attachment H Section I.A
Santa Monica Bay DDTs and PCBs TMDL	Santa Monica Bay	DDT and PCBs	None	Comply with General Permit and the additional Toxics TMDL Requirements in the 2022 CGP Attachment H Section I.G.2

2.8 IDENTIFICATION OF NON-STORMWATER DISCHARGES

Non-stormwater discharges into storm drainage systems or waterways which are not authorized under the 2022 CGP and listed in the SWPPP or authorized under a separate NPDES permit are prohibited.

Non-stormwater discharges that are authorized from the ATMP – Roadway Improvements Project will be managed with the stormwater and non-stormwater BMPs described in Section 3 of this SWPPP and will be minimized under the direction of the QSP. Additionally, the non-stormwater discharges not applicable to this project are still allowable granted they do not contact potential pollutant sources.

Activities at this site that may result in unauthorized non-stormwater discharges include:

- Dust control during clearing, grading and grubbing
- Dust control during excavation, support of excavation, construction and demolition.
- Equipment washing
- Sanitary waste

Steps will be taken, including the implementation of appropriate BMPs, to ensure that unauthorized discharges are eliminated, controlled, disposed or treated onsite. Discharges of construction materials and wastes, such as fuel or paint resulting from dumping, spills or direct contact with stormwater are prohibited.

Treated construction process water, which will include construction impacted stormwater and other non-stormwater, will be discharged to the sanitary sewer system in accordance with an Industrial Wastewater Discharge Permit.

2.9 REQUIRED SITE DRAWINGS AND MAPS INFORMATION

A General Vicinity Map, Site BMP Maps for current construction plan and other 2022 CGP Section IV.O.2.k and l information are provided in Appendix A. The Site Maps will be updated in the future submittals and reflect each applicable phase of development including:

- **Phase 1:** Remove Sky Way access to CTA and LAX-it lot to facilitate Concourse 0 construction
- **Phase 2:** Construct offline alignments to provide access to and from the CTA while keeping traffic in existing locations
- **Phase 3:** Finalize access to CTA via Sepulveda Boulevard
- **Phase 4:** Finalize access to CTA from Sepulveda Boulevard and begin reconstruction of Century Boulevard access to CTA
- **Phase 5:** Construct offline alignments located south of Century Boulevard to provide access to Century Boulevard to and from the CTA
- **Phase 6:** Complete construction to move traffic to final configuration

Section 3 Best Management Practices

3.1 SCHEDULE FOR BMP IMPLEMENTATION

BMPs will be implemented as per the schedule indicated in Table 3.1.

Table 3-1. BMP Implementation Schedule

BMP	Implementation	Duration
Erosion Control		
EC-1 Scheduling	Start of construction	Entirety of project
EC-2 Preservation of Existing Vegetation	Start of construction	Entirety of project
EC-5 Soil Binders	Prior to rain – exposed soil	Entirety of project
EC-7 Geotextiles and Mats	Prior to rain, as needed	Entirety of project
EC-9 Earth Dike/Drainage Swale	Start of construction, as needed	Entirety of project
EC-10 Velocity Dissipation Device	Start of construction, as needed	Entirety of project
Sediment Control		
SE-1 Silt Fence	Start of construction, as needed	Entirety of project
SE-2 Sediment Basin	Prior to initial grading	Entirety of project
SE-5 Fiber Rolls	Start of construction, as needed	Entirety of project
SE-7 Street Sweeping and Vacuuming	Start of construction	Entirety of project
SE-8 Sandbag Barrier	Start of construction, as needed	Entirety of project
SE-10 Storm Drain Inlet Protection	Start of construction	Entirety of project
SE-12 Manufactured Linear Sediment Controls	Start of construction, as needed	Entirety of project
SE-14 Biofilter bags	Start of construction, as needed	Entirety of project
Tracking Control		
TC-1 Stabilized Construction Entrance/Exit	Start of construction	Entirety of project
TC-2 Stabilized Construction Roadway	Start of construction	Entirety of project
TC-3 Entrance Outlet Tire Wash	Start of construction, as needed	Entirety of project
Wind Erosion Control		
WE-1 Wind Erosion Control	Start of construction	Entirety of project
Non-Stormwater Control		
NS-1 Water Conservation Practices	Start of construction, as needed	Entirety of project
NS-2 Dewatering Operation	Prior to discharge	Entirety of project
NS-3 Paving and Grinding Operation	Prior to paving operations	Entirety of project
NS-6 Illicit Connection/Discharge	Start of construction	Entirety of project

BMP	Implementation	Duration
NS-8 Vehicle and Equipment Cleaning	Start of construction	Entirety of project
NS-9 Vehicle and Equipment Fueling	Start of construction	Entirety of project
NS-10 Vehicle and Equipment Maintenance	Start of construction	Entirety of project
NS-12 Concrete Curing	Prior to concrete work	Entirety of project
NS-13 Concrete Finishing	Prior to concrete work	Entirety of project
NS-16 Temporary Batch Plants	Prior to concrete work	Entirety of Project
Waste Management and Material Pollution Control		
WM-1 Material Delivery and Storage	Start of construction	Entirety of project
WM-2 Material Use	Start of construction	Entirety of project
WM-3 Stockpile Management	Start of construction	Entirety of project
WM-4 Spill Prevention and Control	Start of construction	Entirety of project
WM-5 Solid Waste Management	Start of construction	Entirety of project
WM-6 Hazardous Waste Management	When confirmed present	Entirety of project
WM-7 Contaminated Soil Management	When confirmed present	Entirety of project
WM-8 Concrete Waste Management	Start of construction	Entirety of project
WM-9 Sanitary-Septic Waste Management	Start of construction	Entirety of project
WM-10 Liquid Waste Management	Start of construction	Entirety of project

3.2 EROSION AND SEDIMENT CONTROL

Erosion and sediment controls are required by the 2022 CGP to provide effective reduction or elimination of sediment related pollutants in stormwater discharges and authorized non-stormwater discharges from the sites. Additionally, LAWA PR-18 requires that no sediment be discharged to a storm drain system or receiving water. Applicable BMPs are identified in this section for erosion control, sediment control, tracking control, and wind erosion control.

These temporary erosion and sediment control BMPs shall be implemented in conformance with the following guidelines and as outlined in the BMP Fact Sheets provided in Appendix G. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the Site Map and the SWPPP narrative prevails over guidance in the BMP Fact Sheets.

3.2.1 Erosion Control

Erosion control, also referred to as soil stabilization, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in stormwater runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles.

This construction project will implement the following practices to provide effective temporary and final erosion control during construction:

- Preserve existing vegetation where required and when feasible.
- Control the area of soil-disturbing operations by implementing the identified erosion control BMPs quickly and effectively.
- Control erosion in concentrated flow paths by applying erosion control blankets, erosion control seeding or alternate methods.
- Prior to the completion of construction, apply permanent erosion control to remaining disturbed soil areas.
- Stabilize inactive areas within 14 days of cessation of construction activities or sooner if stipulated by local requirements.

Sufficient erosion control materials shall be maintained onsite to allow implementation in conformance with this SWPPP.

The following erosion control BMP selection table indicates the BMPs that will be implemented to control erosion on the construction site. Erosion control BMP Fact Sheets are provided in Appendix G.

Table 3-2. Temporary Erosion Control CASQA BMP Selections

Fact Sheet	BMP Name	BMP Used		If Not Used, State Reason
		Yes	No	
EC-1	Scheduling	X		
EC-2	Preservation of Existing Vegetation	X		
EC-3	Hydraulic Mulch		X	Other selected BMPs are adequate.
EC-4	Hydroseed		X	Other selected BMPs are adequate.
EC-5	Soil Binders	X		
EC-6	Straw Mulch		X	Other selected BMPs are adequate.
EC-7	Geotextiles and Mats	X		
EC-8	Wood Mulching		X	Other selected BMPs are adequate.
EC-9	Earth Dike and Drainage Swales	X		
EC-10	Velocity Dissipation Devices	X		
EC-11	Slope Drains		X	Other selected BMPs are adequate.
EC-12	Stream Bank Stabilization		X	No stream banks associated with site
EC-14	Compost Blankets		X	Other selected BMPs are adequate.
EC-15	Soil Preparation-Roughening		X	Other selected BMPs are adequate.
EC-16	Non-vegetated Stabilization		X	Other selected BMPs are adequate.
WE-1	Wind Erosion Control	X		

EC-1 Scheduling

BMPs will be systematically deployed as triggered by specific project activities. For instance, upon the initiation of site access, measures such as tracking controls for stabilized construction entrance and exit will be promptly implemented. Subsequent BMPs will be executed in accordance with the prescribed schedule outlined in the table above and further detailed below. The implementation of EC-1, Scheduling BMPs, will be coordinated throughout the project duration, aligning seamlessly with the construction sequence. Adjustments to erosion and sediment controls will be made at locations of soil disturbance changes, ensuring effective management of stormwater runoff along the downgrade perimeter. The project schedule will sequence construction activities with the installation of erosion and sediment control measures appropriate for typical seasonal climate characteristics. Implementation of BMPs will be coordinated with adjacent and subsequent Contractors in accordance with applicable project Contract requirements.

EC-2 Preservation of Existing Vegetation

Vegetation within the construction area that is not designated for clearing and grubbing should be preserved to the greatest extent feasible.

EC-5 Soil Binders

Soil binders will be applied, as needed, to rough-graded soils that will be inactive for a short period of time to temporarily prevent water and wind-induced erosion. Plant-material-based binders are anticipated to be selected due to their higher resistance to leaching characteristics.

EC-7 Geotextiles and Mats

Plastic covers or other Rolled Erosion Control Products (RECPs) will be utilized to protect disturbed soil areas, stockpiles and steep slopes as an alternative to soil binders (EC-5) if rain is predicted.

EC-9 Earth Dike / Drainage Swale

Earth dikes and drainage swales are used to divert off site runoff around the construction site, divert runoff from stabilized areas and disturbed areas, and direct runoff into sediment basins. Temporary earth dikes shall not adversely impact adjacent properties and not be used in areas with slopes steeper than 10%. The flow out of the swale must be directed onto a stabilized area or into a grade stabilization structure. When significant erosion is anticipated, stabilization of a swale shall be achieved through methods such as vegetation, chemical treatment, rock rip-rap, matting, etc.

EC-10 Velocity Dissipation Devices

Outlet protection is a physical device composed of rock, grouted riprap, or concrete rubble, which will be placed at the outlet of the storm drainage ditch to prevent scour of the soil caused by concentrated high velocity flows. When flows are conveyed in open channels such as ditches and swales, the estimated discharge rate shall guide the selection of apron length and rock size. For outlets on slopes steeper than 10%, additional protective measures are recommended.

WE-1 Wind Erosion Control

Reclaimed water shall be applied to disturbed soil areas to prevent or alleviate dust nuisance generated by construction activities. Excessive watering shall be avoided so as not to cause runoff.

3.2.2 Sediment Controls

Sediment controls are temporary or permanent structural measures that are intended to complement the selected erosion control measures and reduce sediment discharges from active construction areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water.

The following sediment control BMP selection table indicates the BMPs that will be implemented to control sediment on the construction site. Sediment control BMP Fact Sheets are provided in Appendix G.

Table 3-3. Sediment Control CASQA BMP Selections

Fact Sheet	BMP Name	BMP Used		If Not Used, State Reason
		Yes	No	
SE-1	Silt Fence	X		
SE-2	Sediment Basin	X		
SE-3	Sediment Trap		X	SE-2 instead; drainage area >5 acres
SE-4	Check Dams		X	Other selected BMPs are adequate.
SE-5	Fiber Rolls	X		
SE-6	Gravel Bag Berm		X	Other selected BMPs are adequate.
SE-7	Street Sweeping	X		
SE-8	Sandbag Barrier	X		
SE-9	Straw Bale Barrier		X	Other selected BMPs are adequate.
SE-10	Storm Drain Inlet Protection	X		
SE-11	ATS		X	Other selected BMPs are adequate.
SE-12	Manufactured Linear Sediment Controls	X		
SE-13	Compost Sock and Berm		X	Other selected BMPs are adequate.
SE-14	Biofilter Bags	X		
TC-1	Stabilized Construction Entrance / Exit	X		
TC-2	Stabilized Construction Roadway	X		
TC-3	Entrance Outlet Tire Wash	X		

SE-1 Silt Fence

A silt fence comprises a woven geotextile material securely entrenched and affixed to supporting poles, occasionally reinforced by a plastic or wire mesh for additional support. Designed to detain water, the silt fence facilitates the sedimentation of coarse particles behind its structure. It is important to note that silt fences are not designed to retain fine soil particles such as clays or silts.

Silt fences will be placed around stockpiles or along project site boundaries if needed to protect downgradient vicinities from runoff. Silt fences will not be installed anywhere on a project without specific approval from LAWA and shall not be used within the Air Operations Area (AOA).

SE-2 Sediment Basin

A sediment basin is a temporary basin formed by excavation or by constructing an embankment so that sediment-laden runoff is temporarily detained under quiescent conditions, allowing sediment to settle out before the runoff is released. Temporary sediment basins will be implemented to provide stormwater retention and sediment settling to support site preparation and grading.

SE-5 Fiber Rolls

A fiber roll, also recognized as wattles or logs, is composed of materials like straw, coir, curled wood fiber, or other biodegradable elements tightly bound into a tubular structure. This roll is then enveloped by plastic netting, which may be photodegradable, or made from natural fibers such as jute, cotton, or sisal. In addition, there are fiber rolls with gravel cores, featuring embedded ballast materials like gravel or sand to enhance weight when staking is impractical, such as in the context of inlet protection.

For the LAWA ATMP – Roadway Improvements, fiber rolls will be made with natural, fiber-wrapped materials such as burlap or cotton. Monofilament or plastic-wrapped rolls are not allowed. Strategically placed at the toe, on the face of slopes along contours, and at the grade break of exposed slopes, these fiber rolls intercept runoff, diminish flow velocity, facilitate the release of runoff as sheet flow, and effectively remove sediment from the runoff through sedimentation. Obstructions such as rocks greater than 1 inch in diameter will be removed prior to placing the fiber roll. Fiber rolls will be repaired or replaced within 24-hours if damage is discovered.

Fiber rolls will be mainly implemented for project perimeter control, storm drain inlet protection, sediment control at down-slope of exposed soil areas, and stockpiles management. No plastic mesh monofilament wrapped fiber roll is permitted; only natural wrapped fiber rolls such as burlap or cotton will be installed on LAWA property.

SE-7 Street Sweeping

Street sweeping intends to remove sediment from streets and roadways and to clean paved surfaces. Sweeping and vacuuming prevent sediment from the project site from entering storm drains or receiving waters. Potential sediment tracking locations shall be inspected daily. Sufficient self-loading operational vacuum motor sweepers with spray nozzles shall be kept onsite to address dust control and pavement cleaning associated with operations.

SE-8 Sandbag Barrier

A sandbag barrier will be used around temporary stockpiles and spoiled areas, below smaller cleared areas, parallel to roadways, and as sediment traps wherever needed as a linear control measure. Alternatively, fiber rolls may be used where greater flow through or less upgradient water retention is desired. Inspection shall be conducted to assess the integrity of the sandbags on a weekly basis.

SE-10 Storm Drain Inlet Protection

Storm Drain Inlet Protection measures temporarily pond runoff before it enters the storm drain, allowing sediment to settle. Every storm drain inlet receiving runoff from unstabilized or otherwise active work areas shall be protected to prevent sediment-laden stormwater and non-stormwater discharges from entering the stormwater drainage system. Silt fence (SE-1) or other sediment control BMPs could be employed as needed to facilitate storm drain inlet protection.

SE-12 Manufactured Linear Sediment Controls

Manufactured Linear Sediment Controls (MLSC) are pre-manufactured devices that are typically specified and installed for drainage and sediment control on the perimeter of disturbed sites or stockpiles. MLSCs are commonly employed in areas as an alternative to silt fences (SE-1) and fiber rolls (SE-5) for sediment control purposes. They serve to decelerate runoff water, divert drainage, and contain fines and sediment.

SE-14 Biofilter Bags

Biofilter Bags are a multi-purpose sediment control BMP consisting of a plastic mesh bag filled with 100% recycled wood product waste. Biofilter bags are a short-term BMP that can be rapidly deployed, maintained, and replaced. Biofilter bags can be an effective short-term solution to place in developed rills to prevent further erosion until permanent measures can be established.

TC-1 Stabilized Construction Entrance and Exit

Stabilized Construction Entrance and Exit shall be applied to unpaved roads and construction site access points with a notable risk of sediment trackout onto paved roadways. Gravel and tracking plates will be installed to mitigate the tracking of sediment. Local roads adjacent to the site shall be inspected daily. Street sweeping (SE-7) will be scheduled to remove visible accumulated sediment as needed.

TC-2 Stabilize Construction Roadway

Access roads, parking areas, and other on-site construction vehicle roadways will undergo stabilized grading and regular maintenance to prevent erosion, minimize dust emissions, and avoid the tracking of sediment onto paved roads. Vehicles are required to operate at sufficiently low speeds to mitigate dust kick-up.

TC-3 Entrance Outlet Tire Wash

A tire wash will be implemented to minimize trackout of dirt, mud, and sediment from the construction site onto the adjacent public access roads.

3.3 NON-STORMWATER CONTROLS AND WASTE AND MATERIALS MANAGEMENT

3.3.1 Non-stormwater Controls

Non-stormwater discharges into storm drainage systems or waterways, which are authorized under the 2022 CGP, are prohibited. Non-stormwater discharges for which a separate NPDES permit is required by the Regional Water Board are prohibited unless coverage under the separate NPDES permit has been obtained for the discharge. The selection of non-stormwater BMPs is based on the list of construction activities with a potential for non-stormwater discharges identified in Appendix F of this SWPPP.

The following non-stormwater control BMP selection table indicates the BMPs that will be implemented to control sediment on the construction site. Fact Sheets for temporary non-stormwater control BMPs are provided in Appendix G.

Non-stormwater BMPs will be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix G. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the Site Map. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Table 3-4. Non-stormwater Control CASQA BMP Selections

Fact Sheet	BMP Name	BMP Used		If Not Used, State Reason
		Yes	No	
NS-1	Water Conservation Practices	X		
NS-2	Dewatering Operation	X		
NS-3	Paving and Grinding Operation	X		
NS-4	Temporary Stream Crossing		X	No stream crossing the project site.
NS-5	Clear Water Diversion		X	No clear water diversion.
NS-6	Illicit Connection/Discharge	X		
NS-7	Potable Water/Irrigation		X	Not anticipated as per project scope.
NS-8	Vehicle and Equipment Cleaning	X		
NS-9	Vehicle and Equipment Fueling	X		
NS-10	Vehicle and Equipment Maintenance	X		
NS-11	Pile Driving Operation		X	Not anticipated as per project scope.
NS-12	Concrete Curing	X		
NS-13	Concrete Finishing	X		
NS-14	Material and Equipment Use Over Water		X	No work over water.
NS-15	Demolition Adjacent to Water		X	No demolition adjacent to water.
NS-16	Temporary Batch Plants	X		

NS-1 Water Conservation Practices

Water Conservation Practices encompass strategic activities employed during the construction phase of a project to utilize water in a manner that prevents erosion and the offsite transport of pollutants. Implementation of these practices can effectively minimize or eliminate non-stormwater discharges.

NS-2 Dewatering Operations

Dewatering Operations will be implemented to manage the discharge of pollutants when non-stormwater and accumulated precipitation (stormwater) must be removed from a work location. Although construction practices and BMPs would minimize the quantity of run-on into the work areas and excavations, rainfall which does not evaporate or percolate into the ground may require dewatering and rainfall which contacts construction contaminants may require to be treated as construction impacted stormwater. In cases where the accumulated stormwater cannot be used for dust control, the stored water will need to be treated prior to discharge to the MS4. The contractor must comply with all the CGP requirements, provisions, limitations, and prohibitions as described in the SWPPP. There may be additional requirements and/or permits from the Regional Water Quality Control Board (RWQCB) and/or the owner of the MS4. There are a variety of methods that the Contractor can use to treat the water prior to discharge. Sediment basin (SE-2) and water treatment system will be implemented as needed at the construction sites to remove potential construction process water contaminants prior to discharge.

NS-3 Paving and Grinding Operation

Paving and Grinding Operations will be implemented to prevent paving and road improvement materials, saw-cuttings and other debris from being discharged off-site. Prior to paving and operations, silt fence (SE-1) or fiber rolls (SE-5) will be installed as identified in the site BMP maps to prevent migration of sediment. Other BMPs such as stockpile management (WM-3), soil waste management (WM-5), and concrete waste management (WM-8) will be incorporated as needed. To prevent discharge of debris into stormwater, manufacturer recommendations will be followed to allow for sufficient curing of material prior to the onset of precipitation. Additionally, grinding operations will budget enough time to clean up prior to the onset of precipitation.

NS-6 Illicit Connection/Discharge

Illicit Connection/Discharge are procedures and practices designed for construction contractors to recognize illicit connections or illegally dumped or discharged materials on a construction site and report incidents. The construction sites shall be inspected regularly for any non-Contractor illegal discharges, illicit connections or illegally dumped materials; discovery of this activity shall be reported to the owner's representative immediately.

NS-8 Vehicle and Equipment Cleaning

Vehicle and Equipment Cleaning procedures and practices eliminate or reduce the discharge of pollutants to stormwater from vehicle and equipment cleaning operations. Procedures and practices include but are not limited to: using offsite facilities; washing in designated, contained areas only; eliminating discharges to the storm drain by infiltrating the wash water; and training employees and subcontractors in proper cleaning procedures.

NS-9 / NS-10 Vehicle and Equipment Fueling / Maintenance

Several types of vehicles and equipment will be used on-site throughout the project, including excavators, cranes, loaders, paving equipment, trucks, trailers, drill rigs, backhoes, forklifts, generators, and compressors. Vehicle and Equipment Fueling/Maintenance will be utilized to prevent discharges of fuel and other vehicle fluids from locations where these activities are designated to occur. Self-propelled vehicles will be fueled off-site or at a paved fueling area; fuel trucks equipped with absorbent spill clean-up materials will be used for all on-site fueling. Waste Management BMPs will be incorporated for minor repairs and maintenance of vehicle and

equipment on-site to prevent illegal discharges of fuel and other vehicle fluids. Drip pans or absorbents will be used for all maintenance involving grease, oil, solvents, or vehicle fluids.

NS-12 / NS-13 Concrete Curing / Finishing

Concrete operations will be conducted for the construction of the portal, station, foundation pads, parking, roadway improvements, retaining walls, etc. Concrete curing procedures will be implemented to proactively prevent the uncontrolled discharge of curing compounds. Conformance with Concrete Finishing protocols will be ensured during the finishing work for the facilities.

NS-16 Temporary Batch Plants

Temporary Batch Plants will be established at the construction sites to facilitate the project concrete, grout, and pavement work. Effective management and utilization of equipment, materials, and waste products originating from temporary batch plant facilities will minimize the discharge of potential pollutants into the storm drain system or watercourses. This approach not only decreases air emissions but also serves to mitigate noise impacts.

3.3.2 Materials Management and Waste Management

Materials management control practices consist of implementing procedural and structural BMPs for handling, storing, and using construction materials to prevent the release of those materials into stormwater discharges. The amount and type of construction materials to be used at the site will depend on the type of construction and the length of the construction period. The materials may be used continuously, such as fuel for vehicles and equipment; or for a discrete period, such as soil binders for temporary stabilization.

Waste management consists of implementing procedural and structural BMPs for handling, storing, and ensuring proper disposal of wastes to prevent the release of those wastes into stormwater discharges.

Materials and waste management pollution control BMPs will be implemented to minimize stormwater contact with construction materials, wastes, and service areas; and to prevent materials and wastes from being discharged off site. The primary mechanisms for stormwater contact that shall be addressed include:

- Direct contact with precipitation, stormwater run-on and runoff
- Direct discharge to stormwater conveyances and receiving waters through spills or dumping
- Extended contact with asphalt, treated wood products, or other leachable materials and wastes.
- Wind dispersion of loose materials

A list of construction activities is provided in Appendix F. Table 3-5 indicates the BMPs that shall be implemented to handle materials and control construction site wastes associated with these construction activities. Fact sheets for Materials and Waste Management BMPs are provided in Appendix G.

Material and waste management BMPs will be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix G. If there is a conflict between documents, the Site Map will prevail over narrative in the body of the SWPPP or

guidance in the BMP Fact Sheets. Site specific details in the Site Map prevail over standard details included in the Site Map and the SWPPP narrative prevails over BMP Fact Sheets guidance.

Table 3-5. Materials and Waste Management CASQA BMP Selections

Fact Sheet	BMP Name	BMP Used		If Not Used, State Reason
		Yes	No	
WM-1	Material Delivery and Storage	X		
WM-2	Material Use	X		
WM-3	Stockpile Management	X		
WM-4	Spill Prevention and Control	X		
WM-5	Solid Waste Management	X		
WM-6	Hazardous Waste Management	X		
WM-7	Contaminated Soil Management	X		
WM-8	Concrete Waste Management	X		
WM-9	Sanitary-Septic Waste Management	X		
WM-10	Liquid Waste Management	X		

WM-1 Material Delivery and Storage

Materials will be delivered and stored in a manner that ensures they will not be discharged to the storm drain system. Chemical liquids will be stored on secondary containment. All materials will be properly stored and covered prior to rain and at the end of each construction day.

WM-2 Material Use

Mitigate the discharge of pollutants into the storm drain system or watercourses resulting from material use by adopting alternative products, minimizing the use of hazardous materials on-site, and providing comprehensive training for employees and subcontractors. Materials will be used in a manner that ensures they will not be exposed to rain or discharged into the stormdrain system. Spills and leaks will be cleaned up immediately.

WM-3 Stockpile Management

Stockpile management procedures and practices are designed to reduce or eliminate air and storm water pollution from stockpiles of soil, soil amendments, sand, paving materials, and pressure treated wood. The stockpiles will be secured with wind erosion control (WE-1) and sediment controls such as silt fences (SE-1), fiber rolls (SE-5), and sandbags (SE-8).

Stockpiles of rock and earth materials that are not actively being used shall be protected with a dust control product such as: water spray (reclaimed water shall be used for dust control), proprietary non-toxic crusting agents, anchored geotextile fabric or tarps, erosion control fabric, seeding, or other methods approved by LAWA. Bituminous prime coat products for dust control are not acceptable.

WM-4 Spill Prevention and Control

To prevent spills and leaks, materials will be stored and handled with proper care. Immediate cleanup measures will be taken if there is a spill or leak. On-site spill kits will be consistently maintained, ensuring they are appropriate for all materials and wastes. Employees and subcontractors will undergo training to adeptly address and clean up spills and leaks. The contractor shall provide a Spill Prevention and Emergency Response Plan in accordance with Permit requirements.

WM-5 Solid Waste Management

The procedures and practices for solid waste management are strategically designed to prevent or minimize the discharge of pollutants into stormwater from solid or construction waste. This involves the establishment of designated waste collection areas and containers, organizing regular disposal processes, and providing training for employees and subcontractors. Stockpile locations require prior approval by LAWA. Stockpiles need to be located such that access by construction vehicles minimize disruption to adjacent public streets consistent with all impact mitigations outlined in the FAA Haul Route Plan.

WM-6 Hazardous Waste Management

Hazardous waste management will be implemented to minimize stormwater contact with hazardous waste materials and to prevent waste discharges. Hazardous waste will be stored in appropriately and clearly labeled containers and segregated from other non-waste materials. Employees and subcontractors shall receive training on hazardous waste storage and disposal procedures. If hazardous waste materials spill, clean up immediately.

WM-7 Contaminated Soil Management

Suspect contaminated soil areas and materials will be properly contained during further characterization. If temporary stockpiling of suspect or confirmed contaminated soils is required, then the piles will be placed on and covered with plastic sheeting or tarps secured with sandbags and bermed with fiber rolls or silt fences to prevent wind erosion and runoff from leaving the area and to minimize exposure of stormwater with potential contaminants. Upon characterization confirmation, all waste will be handled and properly disposed of in accordance with applicable local, state, and federal rules and regulations.

WM-8 Concrete Waste Management

The implementation of concrete waste management is imperative for all activities involving roadway modification, grouting, and concrete work associated with the project. Strict adherence to this protocol ensures that any surplus concrete and concrete washout slurries will prevent from being discharged into the watercourses linked to the construction sites.

WM-9 Sanitary-Septic Waste Management

Effective sanitary and septic waste management is pivotal in preventing the discharge of pollutants into stormwater. This will be achieved through the establishment of convenient and well-maintained facilities, coupled with the organization of regular service and disposal procedures.

WM-10 Liquid Waste Management

Liquid waste management includes procedures and practices to prevent discharge of pollutants to the storm drain system or to watercourses as a result of the creation, collection, and disposal of

non-hazardous liquid wastes. This waste originates from a broad range of sources and can contain a wide spectrum of potential contaminants and will be managed in conjunction with appropriate BMPs such as Vehicle and Equipment Cleaning (NS-8), Spill Prevention and Control (WM-4), Solid Waste Management (WM-5), etc.

3.4 TMDL-RELATED BMPS

Bacteria TMDL BMPs:

- The QSP shall conduct training for construction site staff on routine housekeeping and sanitary waste management of identified sources of bacteria.
- Structural BMPs designed for retention, infiltration, or diversion of stormwater shall be evaluated and implemented when the implemented minimum source control BMPs are inadequate to reduce bacteria loading to receiving waters.

Dichlorodiphenyltrichloroethane (DDT), Polychlorinated Biphenyls (PCB) and Metals TMDL BMPs:

- A Responsible Discharger that identifies on-site sources of metals or toxics in their pollutant source assessment and are assigned a mass-based waste load allocation, shall address the TMDL through the following in addition to complying with the 2022 CGP:
 - a. Comply with the site-specific erosion and sediment control, post-construction, and all other requirements in the 2022 CGP;
 - b. Install erosion and sediment controls that will result in predicted erosion rates that are as protective as pre-construction conditions (e.g., undisturbed vegetation for the area) for each phase of the construction project; and
 - c. Use RUSLE2 modeling to calculate the predicted soil losses and sediment delivery rates when selecting temporary BMPs and controls to be applied during each phase of the project. The RUSLE2 modeling included in Appendix B of this SWPPP shall include:
 - i. Appropriate climatic variables, soil types, and slope topography for the area disturbed; and
 - ii. Calculated soil loss and sediment delivery rates for the selected BMPs and controls equal to, or less than, the soil loss and sediment delivery rates for pre-construction conditions during each phase of the construction project.

If BMPs fail, sampling for non-visible pollutants will be conducted to address the potential discharge of the TMDL specific pollutant as stated in I.G.3.b of the 2022 CGP.

It should be noted that the General Permit may be re-opened prior to March 23, 2032 to revise requirements for TMDLs for lead, copper, and zinc for Los Angeles Harbor. This will be monitored, and concerns will be addressed should they arise.

3.5 POST-CONSTRUCTION STORMWATER MANAGEMENT MEASURES

Post-construction BMPs are permanent measures installed during construction, designed to reduce or eliminate pollutant discharges from the site after construction is completed. The Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities therein (including the City of Los Angeles and LAX) are jointly covered under a single MS4 permit for the discharge of urban runoff to Waters of the U.S.

This site is subject to the post-construction requirements of an existing NPDES Phase I or Phase II MS4. ☒ Yes ☐ No

The post-construction runoff reduction requirements have been satisfied through the MS4 program; this project is exempt from 2022 CGP Provision IV.N.3. The MS4's post construction requirements and the post-construction plans and calculations submitted to or approved by the MS4 will be uploaded as part of the PRDs as required by 2022 CGP Provision IV.N.2. The approved Long-Term Maintenance Plan will be uploaded with the NOT.

As per 2022 CGP Attachment D.2 Section II.D.2, all dischargers, other than Linear Underground and Overhead Project dischargers, within a Phase I or II municipal separate storm sewer system permitted area, shall upload the following items in SMARTS:

- An attachment or web-source containing the applicable NPDES Phase I or Phase II municipal separate storm sewer system permittee's post-construction requirements; and
- The post-construction plans and calculations submitted to or approved by the applicable NPDES Phase I or Phase II municipal separate storm sewer system permittee.

3.5.1 Initial Site Restoration and Control Practices

No temporary erosion and sediment control BMPs will remain in place on site after final completion of the project. Good Housekeeping Practices (GHPs) will be implemented; GHPs include application of fertilizers and pesticides to landscaped areas in accordance with manufacturer's specifications and a general onsite maintenance and disposal program to keep the sites free of litter and debris. Landscaping activities and site cleanup will be performed as part of site restoration. The following temporary BMPs are anticipated to be implemented as needed during site restoration:

- EC-1, Scheduling
- EC-2, Preservation of Existing Vegetation
- SE-5, Fiber Rolls
- SE-7, Street Sweeping and Vacuuming
- WE-1, Wind Erosion Control
- WM-1, Material Delivery and Storage
- WM-2, Material Use
- WM-3, Stockpile Management
- WM-4, Spill Prevention and Control
- WM-5, Solid Waste Management
- WM-9, Sanitary/Septic Waste Management
- WM-10, Liquid Waste Management

3.5.2 Operation / Maintenance after Project Completion

Upon project completion the sites will include post-construction BMPs. LAWA will ultimately be the responsible party for the long-term maintenance of post-construction BMPs. The construction sites will be in an area subject to a Municipal Separate Storm Sewer (MS4) permit.

Section 4 BMP Inspection and Maintenance

4.1 BMP INSPECTION AND MAINTENANCE

The 2022 CGP requires routine weekly inspections of BMPs, along with inspections before, during, and after qualifying precipitation events. A BMP inspection checklist must be filled out for inspections and maintained on-site with the SWPPP. The inspection checklist must include the necessary information covered in Section 7.6. A blank BMP Inspection Form can be found in Appendix H. Completed forms will be kept in Appendix M.

Maintenance, repair, or design and implementation of new BMPs alternatives will begin within 72 hours of the identification of failures or other shortcomings. Corrections will be completed as soon as possible, prior to the next forecasted precipitation event (2022 CGP Appendix D Section II.J)

The QSP will verify that all BMP maintenance and repairs were appropriately implemented during the next visual inspection following completion.

The QSP may delegate BMP maintenance and repair verification to an appropriately trained QSP Delegate.

Specific details for maintenance, inspection, and repair of Construction Site BMPs can be found in the BMP Fact Sheets in Appendix G.

Section 5 Training

Appendix J identifies the QSPs and QSP Delegates for the project. To promote stormwater management awareness specific for this project, periodic training of job-site personnel will be included as part of routine project meetings (e.g., daily/weekly tailgate safety meetings), or task specific training as needed. Refresher training will be provided as necessary.

The QSP will be responsible for providing this information at the meetings, and subsequently completing the Training Reporting Form shown in Appendix I, which identifies the site-specific stormwater topics covered as well as the names of site personnel who attended the meeting.

The QSP may delegate specific tasks to trained QSP Delegates who have received the following training based on the guidelines developed by the Construction General Permit Training Team.

1. **Foundational training** for all QSP Delegate(s) regarding stormwater compliance roles and responsibilities, forecast information, and documentation and reporting procedures; and
2. **Site-specific training** regarding visual inspections, sampling procedures, and/or SWPPP and BMP implementation activities relevant to the responsibilities assigned to the QSP Delegate(s).

The delegate cannot perform the QSD and QSP inspections required in Section V.C.4 or Section V.D.2, respectively.

Documentation of training activities will be retained in Appendix I.

Section 6 Responsible Parties and Operators

6.1 RESPONSIBLE PARTIES

DAR(s) who are responsible for SWPPP implementation and have authority to sign permit-related documents will be listed in this section.

6.1.1 Qualified SWPPP Developer (QSD)

QSDs identified for the project are included in Appendix J. SWPPP Amendment QSD Certifications are located in Appendix C. The QSD will have primary responsibility for assessing how construction activities will affect sediment transport, erosion, and other discharges of pollutants in stormwater runoff throughout the project. The QSD is required to revise the SWPPP to address potential problems identified by visual inspections, sampling data, comments from a QSP, or their own site observations. The QSD is required to perform the following on-site visual inspections:

- Within 30 days of construction activities commencing on site;
- Within 30 days when a new QSD is assigned to the project;
- Twice annually, once August through October and once January through March;
- Within 14 calendar days after a numeric action level exceedance; and
- Within the time period requested in writing from Regional Water Board staff.

6.1.2 Qualified SWPPP Practitioner (QSP) and QSP Delegate

QSPs and QSP Delegates identified for the project are included in Appendix J. The QSP will have primary responsibility and significant authority for the implementation, maintenance, and inspection/monitoring of SWPPP requirements. The QSP will be always available throughout the duration of the project.

Duties of the QSP for this project include but are not limited to:

- Implementing all elements of the 2022 CGP and SWPPP, including, but not limited to:
 - Performing the following on-site visual inspections:
 - One inspection per calendar month; other weekly inspections in the month can be delegated to a trained QSP Delegate under the specific direction of the QSP.
 - Within 72 hours prior to a forecasted qualifying precipitation event, to inspect any areas of concern and to verify the status of any deficient BMPs, or other identified issues at the site. If extended forecast precipitation data (greater than 72 hours) is available from the *National Weather Service*, then the Pre-Precipitation Event inspection may be done up to 120 hours in advance.
 - Within 14 days after a NAL exceedance, the QSP shall visually inspect the drainage area for exceedance and document any areas of concern.
 - Prior to the submittal for the NOT or COI (for acreage changes) for all or part of the site.

- Ensuring all BMPs are implemented, inspected, and properly maintained;
- Ensuring that the SMARTS generated WDID Number Notification form is posted on-site, in a location viewable by the public or readily available upon request, and the dates are correct and match the dates listed in SMARTS.
- Implementing non-stormwater management, and materials and waste management activities such as: monitoring discharges; general site clean-up; vehicle and equipment cleaning, fueling and maintenance; spill control; ensuring that no materials other than stormwater are discharged in quantities which will have an adverse effect on receiving waters or storm drain system, etc.
- Ensuring elimination of unauthorized discharges.
- The QSP shall be assigned authority by the Contractor to mobilize crews in order to make immediate repairs to the control measures.
- Coordinate with the Contractors to ensure that the necessary corrections/repairs are made immediately and that the project complies with the SWPPP, the 2022 CGP, and approved plans at all times.
- Notifying the LAWA Project Manager or designee, Contractor Project Manager, LRP, or Duly Authorized Representative (DAR) immediately of off-site discharges or other non-compliance events.
- Providing foundation and site-specific training to QSP Delegates and overseeing QSP Delegate work. Tasks that may be delegated to appropriately trained QSP-delegates include:
 - Performing non-stormwater (NSW) and stormwater visual observations and inspections;
 - Performing stormwater sampling and analysis, as required; and
 - Performing routine inspections and observations.

Table 6-1. QSP and QSP Delegate Authorized Inspections

	Weekly BMP and NSW	Pre-QPE	During QPE Visual Inspections	Post-QPE Visual Inspections	Post NAI Exceedance	Monthly BMP and NSW	NOT
QSP	X	X	X	X	X	X	X
QSP Delegate	X		X	X			

QPE = Qualifying Precipitation Event

6.2 CONTRACTOR LIST

The information of initial project contact person is in below:

Chris Halpin
Skanska-Flatiron a Joint Venture
1995 Agua Mansa Road
Riverside, California 92509
Email: Chris.Halpin@skanska.com

Section 7 Construction Site Monitoring Program

7.1 PURPOSE

The objective of this Construction Site Monitoring Program (CSMP) is to facilitate:

- Site compliance with the 2022 CGP discharge prohibitions and Numeric Action Levels (NALs)
- Site compliance with TMDL NALs and Numeric Effluent Limitations (NELs)
- Determination of whether non-visible pollutants discharge from the construction site occur which cause or contribute to exceedances of water quality objectives
- Determination of whether immediate corrective actions, additional BMP implementation or SWPPP revisions are necessary to reduce pollutants in stormwater discharges and authorized non-stormwater discharge
- Determination of whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in stormwater discharges and authorized non-stormwater discharges

7.2 APPLICABILITY OF PERMIT REQUIREMENTS

This project has been determined to be a Risk Level 1 project. The 2022 CGP identifies the following types of monitoring applicable for Risk Level 1 projects.

Risk Level 1:

- Visual inspection of BMPs
- Visual monitoring of the site related to qualifying precipitation events
- Visual monitoring of the site for non-stormwater discharges
- Sampling and analysis of construction site runoff for non-visible pollutants including TMDL pollutants identified during the pollutant source assessments when applicable
- Sampling and analysis of construction site runoff as required by the Regional Water Board when applicable

7.3 WEATHER AND PRECIPITATION EVENT TRACKING

Visual monitoring and inspection requirements of the 2022 CGP are triggered by a Qualifying Precipitation Event (QPE). The 2022 CGP defines a QPE as any weather pattern that is forecast to have a 50 percent or greater Probability of Precipitation (PoP) and a Quantitative Precipitation Forecast (QPF) of 0.5 inches or more within a 24-hour period. The event begins with the 24-hour period when 0.5 inches has been forecast and continues on subsequent 24-hour periods when 0.25 inches of precipitation or more is forecast.

7.3.1 Weather Tracking

The QSP should consult the National Oceanographic and Atmospheric Administration (NOAA) for the Forecast Weather Table Interface. These forecasts can be obtained at <http://www.weather.gov/>. Weather reports should be printed and maintained with the SWPPP in Appendix L. Record the date and time the forecast was printed.

7.3.2 Rain Gauges

2022 CGP Attachment D Section III.C.5 requires that post-QPE visual inspections shall be conducted using the onsite rain gauge. The QSP shall install a rain gauge on each project site. Locate the gauge in an open area away from obstructions such as trees or overhangs. Mount the gauge on a post at a height of 3 to 5 feet with the gauge extending several inches beyond the post. Make sure that the top of the gauge is level. Make sure the post is not in an area where rainwater can indirectly splash from sheds, equipment, trailers, etc.

The rain gauges shall be read daily during normal site scheduled hours at approximately the same time every day and the date and time of each reading recorded. An example rain gauge log sheet is provided in Appendix N. Retain rain gauge readings in Appendix M.

Follow the rain gauge instructions to obtain accurate measurements; empty and reset the gauge after the measurement has been recorded. The El Segundo Yard AL371 and 83rd Street Yard AL460 rain gauge stations operated by Los Angeles County can be used for comparison purposes.

7.4 MONITORING LOCATIONS

Monitoring locations based on anticipated construction equipment layout, work areas and drainage topography are described in Sections 7.6 and 7.7 and shown on the Site Maps provided in Appendix A. Whenever changes in the construction site might affect the appropriateness of sampling locations, the sampling locations shall be revised accordingly. All such revisions shall be implemented as soon as feasible and the SWPPP updated. Temporary changes that result in a one-time additional sampling location do not require a SWPPP amendment.

7.5 MONITORING EXEMPTIONS

This project is not required to collect samples or conduct visual observations (inspections) under the following conditions (2022 CGP, Attachment D, Section III.B):

- During dangerous weather conditions such as flooding, high winds (>40 miles per hour) and electrical storms
- Times other than the scheduled site business hours
- When the project site is inaccessible to personnel

If monitoring (visual monitoring or sample collection) of the site is unsafe because of the dangerous conditions noted above, then the QSP shall document the conditions for why an exception to performing the monitoring was necessary. The exemption documentation shall be filed in Appendix M and must be included in the Annual Report.

7.6 VISUAL MONITORING

2022 CGP, Attachment D, Section III.B.2 specifies that for inactive projects, dischargers may reduce the visual inspection frequency and suspend sampling required by 2022 CGP Section III.G for TMDL-related pollutants (all Risk Levels) and pH/turbidity (Risk Levels 2 and 3). Dischargers shall provide an explanation in the Annual Report and include supporting information for all missed visual inspections or sampling required by Attachment D.

Visual monitoring includes observations and inspections. Inspections are required to identify and record BMPs that need maintenance to operate effectively, that have failed or that could fail to

operate as intended. Visual observations are required to observe stormwater drainage areas to identify any spills, leaks or uncontrolled pollutant sources.

Table 7-1 identifies the required frequency of visual observations and inspections. Inspections and observations will be conducted at the locations identified in Section 7.6.3. Any QPE inspection can be counted as a weekly visual inspection.

Table 7-1. Summary of Visual Monitoring and Inspections – Risk Level 1

Type of Inspection	Frequency
<i>Routine Inspections¹</i>	
BMP Inspections	Weekly ²
<i>Qualifying Precipitation Event Triggered Inspections</i>	
Site Inspections Prior to a Qualifying Precipitation Event (QPE)	Within 72 hours of a QPE or up to 120 hours prior if supported with forecast ²
BMP Inspections During an Extended QPE	Once every 24-hour period of a QPE ³
Site Inspection Following a QPE	Within 96 hours of a QPE ²
¹ Inspections are required during scheduled site operating hours. ² Most BMPs must be inspected weekly; those identified below must be inspected more frequently. ³ Inspections are required during scheduled site operating hours on days that the forecast predicts at least 0.25 inches of precipitation once the QPE commences.	

7.6.1 Routine Observations and Inspections

Routine site inspections and visual monitoring are necessary to confirm that the project is compliant with the 2022 CGP requirements.

7.6.1.1 Routine BMP Inspections

Inspections of BMPs are conducted to identify and record:

- Appropriate BMPs for stormwater and non-stormwater are being implemented in areas where active construction is occurring (including staging areas).
- Construction materials, including chemicals, are removed from the site or stored in protective storage containers at the end of every construction day.
- Land areas disturbed during construction are returned to pre-construction conditions or an equivalent protection is used at the end of each workday to eliminate or minimize erosion and the possible discharge of sediment or other pollutants during a precipitation event.
- Project excavations are closed, spoils piles are properly protected and road surfaces are cleaned of excavated material.

Inspections will continue until adequate permanent stabilization is established and, in areas where re-vegetation is chosen, until minimum vegetative coverage is established in accordance with 2022 CGP, Section III.H. Inspections may be reduced in inactive construction areas where soil-disturbing activities are completed and final soil stabilization is achieved in accordance with 2022 CGP, Section III.G.

7.6.1.2 Non-Stormwater Discharge Observations

Each drainage area will be inspected for the presence or indications of prior unauthorized and authorized non-stormwater discharges. Inspections will record:

- Identification and elimination of unauthorized non-stormwater discharges
- Pollutant characteristics, e.g., floating/suspended material, sheen, discoloration, turbidity, odor
- Presence or evidence of any authorized or unauthorized non-stormwater discharge
- Source of discharge

7.6.2 Qualifying Precipitation Event Triggered Observations and Inspections

Visual observations of the site and inspections of BMPs are required prior to and after a QPE and every 24-hour period during a QPE.

7.6.2.1 Visual Observations Prior to a Qualifying Precipitation Event

Within 72-hours prior to a QPE or up to 120 hours prior if extended forecast precipitation data is available, a stormwater visual monitoring site inspection will include and record observations of the following:

- All stormwater drainage areas to identify leaks, spills, or uncontrolled pollutant sources and when necessary, implement appropriate corrective actions to control pollutant sources.
- All stormwater storage and containment areas to detect leaks and check for available capacity to prevent overflow.
- Whether all BMPs have been properly implemented per the SWPPP and implement appropriate corrective actions, as necessary.

The QSP must conduct the inspection prior to the QPE - pre-rain BMP inspections and visual monitoring will be triggered by a NOAA forecast that indicates a 50 percent or greater probability of 0.5 inches of precipitation or more in a 24-hour period in the project area.

7.6.2.2 BMP Inspections During a Qualifying Precipitation Event

During an extended QPE, BMP inspections will be conducted at least once every 24 hours. A QPE is extended for each subsequent 24-hour period forecast to have at least 0.25 inches of precipitation. The BMP inspections shall:

- Identify BMPs that require repair or replacement due to damage
- Identify if BMPs were adequately designed, implemented and effective
- Identify supplemental BMPs that need to be implemented and revise the SWPPP accordingly

If the construction site is not accessible during the precipitation event, the visual inspection shall be performed at all relevant outfalls, discharge points, downstream locations. The inspections should record any projected maintenance activities or BMP repairs in this SWPPP and the reason the site was not accessible.

7.6.2.3 Visual Observations Following a Qualifying Precipitation Event

Post-Qualifying Precipitation Event visual inspections shall be conducted within 96 hours after each QPE if 0.5 inches or more precipitation is measured during the duration of the QPE using the onsite rain gauge. The post-Qualifying Precipitation Event site inspection is required to:

- Identify BMPs that require repair or replacement due to damage
- Identify additional BMPs that need to be implemented and revise the SWPPP accordingly
- Identify if BMPs were adequately designed, implemented and effective
- Observe any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard
- Observe discharge of stored or contained rainwater
- Observe stormwater drainage areas to identify any spills, leaks or uncontrolled pollutant sources

7.6.3 Visual Monitoring Procedures

Visual monitoring and inspections shall be conducted by the QSPs or QSP Delegates. The names, contact numbers and training qualifications of the QSPs or QSP Delegates assigned to conduct visual observations are provided in Appendix J.

Stormwater observations shall be documented on the *Visual Inspection Field Log Sheet* (see Appendix N). BMP inspections shall be documented on the site-specific BMP inspection checklist that, at minimum includes:

- A description of any BMPs evaluated and any deficiencies noted, including those that may have resulted in the release of non-visible pollutants
- A list of BMPs inspected, including erosion controls, sediment controls, chemical and waste controls and non-stormwater controls
- Corrections required, including any necessary changes to the SWPPP and the associated implementation dates
- Inspection date and time of inspection
- Inspector's name, title and certification, if any
- Inspection type (weekly, pre-precipitation, daily precipitation, or post-precipitation event)
- Photographs of areas of concern and the QSP's description of the problem, if any
- Report of the presence of any floating and suspended materials, odors, discolorations, visible sheens and any sources of pollutants in discharges and contained stormwater
- Site information, including stage of construction, activities completed since last inspection and approximate area of the site exposed
- Weather information, including the presence or absence of precipitation, an estimate of the beginning of the Qualifying Precipitation Event, and the amount of precipitation in inches;

The completed inspection reports will be kept in Appendix M. Results of visual monitoring must be summarized and reported in the Annual Report.

7.6.4 Visual Monitoring Follow-Up and Reporting

The QSDs and QSPs are required to do additional onsite visual inspections at intervals that reflect potential changes to the construction site that may occur. The QSP Delegates cannot perform the QSD and QSP inspections required in this section.

The discharger shall ensure that a QSD performs the following onsite visual inspections:

- Within 30 days of construction activities commencing on a site
- Within 30 days of a discharger replacing the QSD
- Twice annually, once August through October and once January through March
- Within 14 calendar days after a numeric action level exceedance
- Within the time period requested in writing from Water Board staff

The discharger shall ensure that a QSP performs the following onsite visual inspections:

- Once every calendar month
- Within 72-hour prior to a Qualifying Precipitation Event or up to 120 hours prior if extended forecast precipitation data is available
- Within 14 days after a numeric action level exceedance the QSP shall visually inspect the drainage area of exceedance and document any areas of concern
- Prior to submittal of General Permit Notice of Termination or Change of Information (for acreage changes) of all or part of a site

These onsite visual inspection requirements are the minimum required and may be increased by the discharger or a QSD during times of high-risk construction activities, excessive site problems, or other conditions that warrant increased oversight by a QSD.

Maintenance, repairs and corrections of deficiencies, including design changes to BMPs, identified by the observations or inspections, including required repairs or maintenance of BMPs, shall be initiated with 72 hours of identification and completed as soon as possible, prior to the next forecasted precipitation event.

When design changes to BMPs are required, the SWPPP shall be amended to reflect the changes. Deficiencies identified in site inspection reports and correction of deficiencies will be tracked on the *Inspection Field Log Sheet* or *BMP Inspection Report* and shall be submitted to the QSP and shall be kept in Appendix M. QSP Delegates shall report issues identified during inspections that require corrective action to the QSP within 24 hours of the observation.

Results of visual monitoring will be summarized and reported in the Annual Report.

7.6.5 Visual Monitoring Locations

The visual inspections and observations identified in Section 7.6.1 and 7.6.2 will be conducted in all areas of active construction. Site Maps provided in Appendix A include the following locations and areas:

- BMP locations
- Drainage areas on the project site and the contractor's yard, staging areas and storage areas

- Stormwater storage or containment areas on the project site from which stormwater will be dewatered
- Site stormwater discharge locations

7.7 WATER QUALITY SAMPLING AND ANALYSIS

The procedures described below will be performed for monitoring of non-visible pollutants in stormwater discharges from the project site in accordance with the Risk Level 1 requirements. Monitoring of pH and turbidity in dewatering discharges is also applicable when dewatering activities are not subject to a separate NPDES permit. All sampling personnel are required to review and thoroughly understand these procedures prior to performing any sampling.

7.7.1 Sampling and Analysis Plan for pH, Turbidity and Non-Visible Pollutants in Stormwater Runoff Discharges

This Sampling and Analysis Plan for Non-Visible Pollutants describes the sampling and analysis strategy and schedule for monitoring non-visible pollutants in stormwater runoff discharges from the project site. Sampling for non-visible pollutants, including those associated with TMDLs will be conducted when visual inspections indicate:

- A breach, leakage, malfunction or spill is observed
- A leak or spill has not been cleaned up prior to the rain event
- Discharge of non-visible pollutants to surface waters or drainage system has occurred or there is a potential for occurring

Sampling for non-visible pollutants will not be conducted if:

- Site inspections reveal zero spill events and proper storage of all construction materials as specified in this SWPPP
- Spills are cleaned up; the contaminated material is isolated; and potential exposure to stormwater runoff has been eliminated prior to discharge

Table 7-2 summarizes the potential non-visible pollutants identified in the pollutant source assessment in Appendix F and the water quality constituent or indicator for that pollutant. Drainage areas where the source is present will be shown on the Site Maps in Appendix A.

Table 7-2. Potential Non-Visible Pollutants and Water Quality Indicator Constituents Based on the Pollutant Source Assessment

Pollutant	Water Quality Indicator or Constituent	Source/Reason from Pollutant Source Assessment	TMDL Pollutant
Asphalt	VOCs	Asphalt Work	No
Acids, Bleaches, Solvents	pH, VOCs	Cleaning	No

Pollutant	Water Quality Indicator or Constituent	Source/Reason from Pollutant Source Assessment	TMDL Pollutant
Metals	Copper, Aluminum, General Minerals	Crushing operations, storage of oxidized metal parts	Yes
Treated wood	Copper, Arsenic, Zinc, Chromium	Shoring	Yes
Insulation materials	Aluminum, Zinc	Insulation	Yes
Hydrocarbons, solids	Hydrocarbons, Suspended Solids	Vehicle use, maintenance	No
Solder, flux and pipe fitting	Copper, Lead, Zinc, Tin	Plumbing	Yes
Existing structures materials	Zinc, VOCs	Removal of existing structures	Yes
Solid Particles	Suspended Solids	Stockpiles	No
Fine solids	Turbidity	Bentonite	No
Hydraulic Oils, Grease	Oil/Grease	Heavy Machinery	No
Petroleum hydrocarbons	Oil/Grease	Lubricants, Grease	No

7.7.1.1 Sampling Schedule

Samples for the potential non-visible pollutants and a sufficiently large, unaffected background sample shall be collected during the first eight hours of discharge from precipitation events that result in a sufficient discharge for sample collection. Samples shall be collected during the site's scheduled hours and shall be collected regardless of the time of year and phase of the construction.

Collection of discharge samples for non-visible pollutant monitoring will be triggered only when any of the following conditions are observed during site inspections conducted prior to or during a precipitation event.

- Materials or wastes containing potential non-visible pollutants are not stored under watertight conditions. Watertight conditions are defined as (1) storage in a watertight container, (2) storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents stormwater contact and runoff from the storage area.

- Materials or wastes containing potential non-visible pollutants are stored under watertight conditions, but (1) a breach, malfunction, leakage, or spill is observed, (2) the leak or spill is not cleaned up prior to the precipitation event, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a stormdrain system.
- A construction activity, including but not limited to those in Section 2.6, with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the precipitation event, (2) BMPs were observed to be breached, malfunctioning or improperly implemented, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a stormdrain system.
- Soil amendments that have the potential to change the chemical properties, engineering properties or erosion resistance of the soil have been applied and there is the potential for discharge of non-visible pollutants to surface waters or a stormdrain system.
- Stormwater runoff from an area contaminated by historical usage of the site has been observed combine with stormwater runoff from the site and there is the potential for discharge of non-visible pollutants to surface waters or a stormdrain system.

7.7.1.2 Sampling Locations

Sampling locations are based on proximity to planned non-visible pollutant storage, occurrence or use; accessibility for sampling and personnel safety. Planned non-visible pollutant sampling locations will be shown on the Site Maps in Appendix A.

The following considerations were used to select the planned sampling locations:

- Areas where soil amendments may be applied
- Areas which may potentially be contaminated by historical usage of the site
- Planned material and waste storage areas and areas where non-visible pollutant producing construction activities are planned
- Sample collection of run-ons will not be required for the project site because of the low volumes anticipated and BMPs which would provide a sufficient barrier to run-on.
- The locations selected for uncontaminated background samples will not have come in contact with the operations, activities or areas identified in Section 7.7.1 or with disturbed soil areas

If a stormwater visual monitoring site inspection conducted prior to or during a storm event identifies the presence of a material storage, waste storage or operations area with spills or the potential for the discharge of non-visible pollutants to surface waters or a stormdrain system that is at a location not listed above and has not been identified on the Site Maps, sampling locations will be selected by the QSP using the same rationale as that used to identify planned locations.

Non-visible pollutant sampling locations shall be documented by the QSP on the Pre-Qualifying Precipitation Event inspection form prior to a forecasted Qualifying Precipitation Event and the *Effluent Sampling Field Log Sheet* which are provided in Appendix N.

7.7.1.3 Monitoring Preparation

The QSP shall be responsible for ensuring that qualified sample collection personnel, supplies and field test equipment are available for monitoring non-visible pollutants prior to any sampling event in accordance with the 2022 CGP.

All sampling personnel and alternates will review SWPPP Section 7 and shall be trained by the QSP or QSD. An adequate stock of monitoring supplies and equipment for monitoring non-visible pollutants will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not contact rain or direct sunlight. The QSP or QSP Delegates responsible for sampling will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the project site will include, but are not limited to, clean powder-free nitrile gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, and *Effluent Sampling Field Log Sheets* and Chain of Custody (CoC) forms which are provided in Appendix N.

Table 7-3 in Section 7.7.1.6 lists the field equipment that shall be used by the monitoring personnel for field sample analysis.

If necessary, the QSP or QSP Delegates will provide advance notice to the analytical laboratory to ensure that adequate sample collection personnel and supplies for monitoring non-visible pollutants are available and mobilized to the site in accordance with the sampling schedule.

7.7.1.4 Analytical Constituents

Table 7-2 lists the specific sources and types of potential non-visible pollutants based on the project pollutant source assessment and the water quality indicator constituents for that pollutant. Table 7-4 in Section 7.7.1.6 provides the specific analytical methods for the potential non-visible pollutants. Analytical methods were selected in compliance with U.S. EPA sufficiency sensitive method requirements in 40 Code of Federal Regulations Part 136, as evidenced by the method detection limit and minimum level.

7.7.1.5 Sample Collection

Samples of discharge will be collected at the designated non-visible sampling locations shown on the Site Maps in Appendix A or in the locations determined by observed breaches, malfunctions, leakages, spills, operational areas, soil amendment application areas and historical site usage areas that triggered the sampling event.

Grab samples shall be collected and preserved in accordance with the methods identified in Table 7-4, "Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants" provided in Section 7.7.1.6. Only the QSP or QSP Delegates trained on sample collection identified in Section 7.7.1.3 shall collect samples.

Representative samples shall be taken based on the general strategy and sampling schedule described above. Each sample must be large enough to obtain an accurate analytical result. Sample collection and handling requirements are described in Section 7.7.7.

7.7.1.6 Sample Analysis

For samples collected for field analysis, collection, analysis and equipment calibration will be in accordance with the field instrument manufacturer's specifications. Field Instruments are included in Table 7-3. The instruments will be maintained in accordance with manufacturer's instructions and calibrated before each sampling and analysis event. The manufacturer's instructions for calibration and use will be added to Appendix O. Maintenance and calibration records shall be maintained with the SWPPP.

Table 7-3. Field Instruments

Field Instrument (<i>or equivalent</i>)	Constituent
Hach 2100P Portable Turbidimeter	Turbidity
Hach HI706 Multiparameter Meter	pH, Conductance

The U.S. EPA established testing procedures for the NPDES program under 40 Code of Federal Regulations Part 136 to ensure pollutants are capable of being detected and measured at or below the applicable water quality criteria or permit limits. A value of zero for non-visible pollutant analytical results less than the minimum level will be applied to calculations required by the 2022 CGP as long as Sufficiently Sensitive Test Methods were used. Samples shall be analyzed using the analytical methods identified in Table 7-4. Sample bottles, volumes and preservatives shall be verified with the analytical laboratory prior to sample collection.

Table 7-4. Sample Collection, Preservation and Analysis for Monitoring pH, Turbidity and Non-Visible Pollutants

Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle ¹	Sample Preservation	Maximum Holding Time
Metals	EPA 200.7	500 ml	P, G	HNO ₃ , pH<2, 4°C	180 days
Total Petroleum Hydrocarbons	EPA 1664	1 liter	G	HCl, pH<2, 4°C	14 days
Volatile Organics	EPA 8260	3x40 ml	G, VOA	HCl, pH<2, 4°C	14 days
MBAS	EPA 425.1	500 ml	P, G	Cool	48 hours
pH	Field Test ²	25 ml	P, G	In-situ	Analyze Immediately
Turbidity	EPA 180.1 or field test	100 ml	P, G	Cool	48 hours

Notes: (1) P = Polyethylene; G = Glass

(2) Delivery time exceeds holding time for laboratory analysis

(3) Analytical laboratories may use the term Reporting Level in lieu of Minimum Level

7.7.1.7 Data Evaluation and Reporting

The QSP shall complete an evaluation of the water quality sample analytical results based on a comparison of the results to the unaffected sample and to the TMDL NAL and NELs.

Runoff/downgradient results shall be compared with the associated upgradient/unaffected results and any associated run-on results. Should the runoff/downgradient sample show an increased level of the tested analyte relative to the unaffected background sample, which cannot be explained by run-on results, the BMPs, site conditions and surrounding influences shall be assessed to determine the probable cause for the increase.

As determined by the site and data evaluation, appropriate BMPs shall be repaired or modified to mitigate discharges of non-visible pollutant concentrations. Any revisions to the BMPs shall be recorded as an amendment to the SWPPP.

Analytical results of non-visible pollutant monitoring shall be submitted to SMARTS within 30 days of obtaining the analytical results. Results demonstrating an exceedance of an applicable TMDL-related NAL or NEL or Basin Plan parameter shall be submitted to SMARTS within 30 days of obtaining the analytical results.

The 2022 CGP prohibits stormwater discharges that contain hazardous substances greater than or equal to reportable quantities established in 40 CFR §§ 117.3 and 302.4. The results of any non-stormwater discharge results that indicate the presence of a hazardous substance greater than established reportable quantities shall be immediately reported to the RWQCB and other agencies as required by 40 CFR §§ 117.3 and 302.4.

The QSP shall compare the runoff sample results to the applicable TMDL NALs and NELs in 2022 CGP Attachment H Table H-2 to determine whether the TMDL NALs and NELs have been exceeded, see Table 7-5.

Table 7-5. TMDL NAL and NEL Exceedances

Standard	Exceedance Evaluation
TMDL NAL	An exceedance occurs on the second, and each subsequent, analytical result for samples taken from any and all discharge locations within the same drainage area, during the same reporting year and taken in accordance with Attachment D Section III.D.3, that is above the concentration set forth in an applicable NAL.
TMDL NEL	An exceedance occurs on the second, and each subsequent, analytical result for samples taken from any and all discharge locations within the same drainage area, during the same reporting year and taken in accordance with Attachment D Section III.D.3, that is above the concentration set forth in an applicable NEL.

If the TMDL NAL or NEL is exceeded, the QSP shall immediately investigate the cause of the exceedance and identify corrective actions. The LRP or DAR shall electronically report all analytical results to the State Water Board by the through SMARTS within 30 days of receiving the results. Exceedances of TMDL NALs and NELs shall be electronically reported to the State Water Board by the LRP or DAR through SMARTS within 10 days of receiving the results.

If requested by the Regional Water Board in writing, a TMDL NAL Exceedance report will be submitted within 30 days of the request. All dischargers shall retain a copy of the report for a minimum of three years after the date the exceedance report is certified and submitted. The TMDL NAL Exceedance Report must contain the following information:

- Analytical methods, method reporting units, and Method Detection Limits of each parameter

- Date, place, time of sampling, visual observation and/or measurements, including precipitation
- Description of the current BMPs associated with the sample that exceeded the TMDL NAL, a description of each corrective action taken including photographs and date of implementation.

In the event of a TMDL NEL exceedance, by the end of each reporting year, project shall implement all of the following water quality based corrective actions:

- Conduct a site assessment to identify pollutant sources within the site that are associated with construction activity and whether the BMPs described in the SWPPP have been properly implemented
- Evaluate the SWPPP and its implementation to determine whether additional BMPs or SWPPP implementation measures are necessary to reduce or prevent pollutants in all regulated discharges to comply applicable NELs
- Certify and submit through SMARTS a report of the above site assessment and SWPPP evaluation that:
 - Additional BMPs or SWPPP implementation measures have been identified and included in the SWPPP, or
 - No additional BMPs or SWPPP implementation measures are required to reduce or prevent pollutants in all regulated discharges to comply with applicable NELs.

The Regional Water Board or its delegate may require revisions of the discharger's water quality-based corrective actions and/or request additional supporting documentation.

7.7.2 Sampling and Analysis Plan for pH and Turbidity in Receiving Water

This project is not subject to Receiving Water Monitoring Triggers because it does not have a direct discharge to the receiving water.

7.7.3 Sampling and Analysis Plan for Dewatering Discharges

Per 2022 CGP Attachment J Section A.1, dischargers with dewatering activities subject to a separate NPDES permit are not subject to the provisions in Attachment J. Other dewatering activities planned for this project will be conducted and monitored according to the requirements of the 2022 CGP Attachment J.

This Sampling and Analysis Plan for dewatering discharge describes the sampling and analysis strategy and schedule for monitoring dewatering discharges in accordance with the requirements of the 2022 CGP.

7.7.3.1 Sample Schedule

Sampling of dewatering discharges will be conducted within the first hour of the commencement of discharge and daily each day that the discharge continues.

7.7.3.2 Sample Locations

Sampling locations are based on the planned dewatering locations. If unplanned dewatering is required, sampling locations will be selected by the QSP using the same rationale as that used to

identify planned locations. Dewatering sampling locations shall be documented by the QSP on the *Effluent Sampling Field Log Sheet* provided in Appendix N.

7.7.3.3 Monitoring Preparation

Monitoring preparation will be performed as described above in Section 7.7.1.3.

7.7.3.4 Sample Collection and Field Analysis

Dewatering samples shall be collected at the designated sampling locations. Turbidity and pH samples shall be analyzed immediately by using field equipment. Each sample must instantaneously comply with the numerical action levels for pH (within 6.5 - 8.5 standard pH units) and turbidity (250 nephelometric turbidity units). Sample collection and handling requirements are described in Section 7.7.6.

7.7.3.5 Data Evaluation and Reporting

At least 24 hours prior to the beginning of a dewatering discharge, the discharger shall notify the Regional Water Board via email of the anticipated dewatering discharge. If the discharge is necessary to protect human life and health or prevent severe property damage and cannot be ceased, the discharger shall notify the corresponding Regional Water Board and the applicable municipal separate storm sewer system within 24 hours.

The QSD shall update the site-specific SWPPP onsite at least 24 hours prior to the beginning of a dewatering discharge and upload the amended SWPPP to SMARTS within 14 days with current information required in below:

- A site map depicting the dewatering activity discharge area locations.
- Cleaning and maintenance plan for all dewatering devices and filter media when the pressure equals or exceeds the manufacturer's specifications (if applicable)
- Onsite BMPs that are selected and implemented:
 - To prevent the dewatering discharge from contacting construction materials or equipment
 - That do not use waters of the United States as part of the treatment area, at all areas or points where dewatering is discharged and
 - To decelerate the velocity of dewatering discharge, e.g., sediment traps, riprap and grouted riprap at outlets
- Site-specific dewatering sampling protocols used to comply with requirements in Section B.1

Dewatering discharges exceeding the numeric action levels for pH and turbidity shall immediately cease until the dewatering discharge complies with the requirements in 2022 CGP Attachment J Section B.1. The discharger shall enter results of all NAL, e.g., turbidity and pH, exceedances through SMARTS within 10 days of the field measurements demonstrating the exceedance. The QSD shall revise the SWPPP to incorporate immediate corrective actions to prevent further exceedances of the NALs for pH and turbidity within 10 days of the exceedance.

The 2022 CGP prohibits non-stormwater discharges that contain hazardous substances greater than or equal to reportable quantities established in 40 CFR §§ 117.3 and 302.4, unless a separate NPDES permit has been issued to regulate those discharges. The results of any discharge results

that indicate the presence of a hazardous substance greater than established reportable quantities shall be immediately reported to the RWQCB and other agencies as required by 40 CFR §§ 117.3 and 302.4.

7.7.4 Sampling and Analysis Plan for Other Regional Water Board Required Pollutants

The Regional Water Board has not specified monitoring for additional pollutants.

7.7.5 Training of Sampling Personnel

QSP Delegates assigned to conduct sampling shall be trained by the QSP to collect, maintain and ship samples in accordance with the 2022 CGP Sample Collection and Handling Instructions and supplemental information as needed. Training records of designated contractor sampling personnel are provided in Appendix I.

7.7.6 Sample Collection and Handling

7.7.6.1 Sample Collection

Samples of discharge will be collected at the designated sampling locations shown on the Site Maps (Appendix A) and listed in the preceding sections. Samples shall be collected, maintained and shipped in accordance with the 2022 CGP Sample Collection and Handling Instructions.

Grab samples shall be collected and preserved in accordance with the methods identified in the Table 7-4 “Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants,” provided in Section 7.7.1.6.

Only personnel trained in proper water quality sampling will collect samples. Samples will be collected by placing a lab-provided primary sample container directly into the up-gradient or down-gradient stream of water and allocate the composite sample into lab-provided sample bottles specific for each analysis. Samples collected for volatile organic compounds (VOC) analysis will be collected directly into lab-provided containers specific for VOC analysis to prevent aeration of the sample.

To maintain sample integrity and to prevent cross-contamination, sampling collection personnel shall follow the protocols below:

- Allocate the samples to the analytical laboratory-provided or specified containers immediately after collection and place the containers in an ice chest containing ice or dry ice
 - Use of any other type of containers could cause sample contamination and may result in NAL or NEL exceedances
- Avoid allowing rainwater to drip from rain gear or other surfaces into sample bottles
- Change gloves between sampling locations and whenever something not known to be clean has been touched
- Decontaminate sampling equipment, i.e., bucket, tubing, prior to sample collection
 - Use a trisodium phosphate (TSP) soapy water wash, distilled water rinse and final rinse with distilled water

- Dispose of wash-rinse water appropriately, i.e., do not discharge to stormdrain or receiving water
- Do not decontaminate laboratory provided sample containers
- Discard sample bottles or lids that dropped onto the ground prior to sample collection
- Do not breathe, sneeze, or cough in the direction of an open sample container
- Do not contaminate the inside of the sample bottle by allowing contact with any material other than the water sample
- Do not eat or drink during sample collection
- Do not leave the cooler lid open once samples are placed inside
- Do not park vehicles in the immediate sample collection area (even non-running vehicles)
- Do not smoke during sampling events
- Do not touch the exposed end of a sampling tube
- Ensure that the composite collection container is thoroughly rinsed if collecting the up-stream sample after the down-stream sample
- Minimize the exposure of the samples to direct sunlight, as sunlight may cause biochemical transformation of the sample to take place
- Never sample near a running vehicle
- Wear clean, powder-free nitrile gloves when collecting samples

The most important aspect of grab sampling is to collect a sample that represents the entire runoff stream. Typically, samples are collected by dipping the collection container in the runoff flow paths and streams as noted below.

- Avoid collecting samples from ponded, sluggish or stagnant water.
- Avoid collecting samples directly downstream from a bridge as the samples can be affected by the bridge structure or runoff from the road surface.
- For small streams and flow paths, simply dip the bottle facing upstream until full.
- For large streams that can be safely accessed, collect a sample in the middle of the flow stream by directly dipping the mouth of the bottle making sure that the opening of the bottle is facing upstream to avoid any contamination by the sampler.
- For larger streams that cannot be safely waded, pole-samplers may be needed to safely access the representative flow.

Depending upon the specific analytical test, some containers may contain preservatives. These containers should **never** be dipped into the stream but filled indirectly from collection container.

7.7.6.2 Sample Handling

Turbidity and pH measurements must be conducted immediately. Do not store turbidity or pH samples for later measurement.

Samples for laboratory analysis must be handled as follows. Immediately following sample collection:

- Cap sample containers
- Complete sample container labels
- Place sealed containers in a re-sealable storage bag
- Place sample containers into an ice-chilled cooler
- Document sample information on the *Effluent Sampling Field Log Sheet* (Appendix N)
- Complete the CoC

All samples for laboratory analysis must be maintained between 0-6 degrees Celsius during delivery to the laboratory. Samples must be kept on ice or refrigerated from sample collection through delivery to the laboratory. Place samples to be shipped inside coolers with ice. Ensure that the sample bottles are well packaged to prevent breakage and the cooler lids are secure.

Ship samples that will be laboratory analyzed to the analytical laboratory right away. Hold times are measured from the time the sample is collected to the time the sample is analyzed. The 2022 CGP requires that samples be received by the analytical laboratory within 48 hours of the physical sampling unless required sooner by the analytical laboratory to meet all hold times.

7.7.6.3 Sample Documentation Procedures

All original data documented on sample bottle identification labels, *Effluent Sampling Field Log Sheet* (Appendix N) and CoCs will be recorded using waterproof ink. These will be considered accountable documents and any errors shall be corrected by lining through the error and entering the correct information. The erroneous information will not be obliterated. All corrections will be initialed and dated.

Duplicate samples shall be identified consistent with the numbering system for other samples to prevent the laboratory from identifying duplicate samples. Duplicate samples shall be identified in the *Effluent Sampling Field Log Sheet*.

Sample documentation procedures include the following:

Sample Bottle Identification Labels: Sampling personnel will attach an identification label to each sample bottle. Sample identification shall uniquely identify each sample location. These location identifiers should be listed in the tables in the SWPPP.

Field Log Sheets: Sampling personnel shall complete the *Effluent Sampling Field Log Sheet* (Appendix N) for each sampling event, as appropriate.

Chain of Custody: Sampling personnel shall complete the CoC for each sampling event for which samples are collected for laboratory analysis. The sampler will sign the CoC when the samples are turned over to the testing laboratory or courier.

7.8 ATS, PTS AND WATERSHED MONITORING

If an Active Treatment System (ATS) is required to achieve compliance with the applicable 2022 CGP wastewater discharge requirements, a project specific Sampling and Analysis Plan for an ATS will be prepared and provided in Appendix P.

The LAWA ATMP Project is not participating in a watershed monitoring option.

7.9 QUALITY ASSURANCE AND QUALITY CONTROL

An effective Quality Assurance and Quality Control (QA/QC) plan shall be implemented as part of the CSMP to ensure that analytical data can be used with confidence. QA/QC procedures to be initiated include the following:

- CoCs
- QA/QC Samples
- Clean sampling techniques
- Data verification
- Field logs

Each of these procedures is discussed in more detail in the following sections.

7.9.1 Training of Sampling Personnel

Sampling personnel shall be trained to collect, maintain and ship samples in accordance with the Surface Water Ambient Monitoring program (SWAMP) 2022 Quality Assurance Program Plan (QAPrP). All sampling personnel shall be familiar with the procedures described above in Sections 7.7.1 and 7.7.7. Training records of sampling personnel are provided in Appendix I.

7.9.2 Field Logs

The purpose of field logs is to record sampling information and field observations during monitoring that may explain any uncharacteristic analytical results. Field log information will include sample date/time, personnel, container identification numbers and types of samples collected. Field observations should be noted in the field log for any abnormalities at the sampling location (color, odor, BMPs, etc.). Field measurements for pH and turbidity should also be recorded in the field log. A Visual Inspection Field Log and an Effluent Sampling Field Log Sheet are included in Appendix N.

7.9.3 Clean Sampling Techniques

Clean sampling techniques involve the use of certified clean containers for sample collection and clean powder-free nitrile gloves during sample collection and handling. Adoption of the sampling procedures in Section 7.7.6 will minimize the chance of field contamination and questionable data results.

7.9.4 Chain of Custody

The sample CoC provided by the analytical laboratory will be used to track the samples from collection through analysis to ensure the validity of the sample. Sample CoC procedures include the following:

- Prompt sample delivery to the analytical laboratory
- Proper labeling of samples
- Use of CoC forms for all samples

Analytical laboratories usually provide CoC forms to be filled out for sample containers.

7.9.5 QA/QC Samples

QA/QC samples provide an indication of the accuracy and precision of the sample collection; sample handling; field measurements; and analytical laboratory methods. The following types of QA/QC will be conducted for this project:

- Field Duplicates at a frequency of 5 percent or 1 duplicate minimum per sampling event (Required for all sampling plans with field measurements or laboratory analysis)
- Equipment Blanks are only needed if the equipment used to collect samples could add the pollutants to sample
- Field Blanks only required if the sampling method calls for them
- Travel Blanks required for sampling plans that include VOC laboratory analysis

7.9.5.1 Field Duplicates

Field duplicates provide verification of laboratory or field analysis and sample collection. Duplicate samples will be collected, handled and analyzed using the same protocols as primary samples. The sample location where field duplicates are collected shall be randomly selected from the discharge locations. Duplicate samples shall be collected immediately after the primary sample has been collected. Duplicate samples must be collected in the same manner and as close in time as possible to the original sample. Duplicate samples shall not influence any evaluations or conclusions.

7.9.5.2 Equipment Blanks

Equipment blanks provide verification that equipment has not introduced a pollutant into the sample. Equipment blanks are typically collected when:

- Equipment that has been cleaned after use at a contaminated site
- Equipment that is not dedicated for surface water sampling is used
- New equipment is used
- Whenever a new lot of filters is used when sampling metals

7.9.5.3 Field Blanks

Field blanks assess potential sample contamination levels that occur during field sampling activities. Deionized water field blanks are taken to the field, transferred to the appropriate container and treated the same as the corresponding sample type during the sampling event.

7.9.5.4 Travel Blanks

Travel blanks assess the potential for cross-contamination of volatile constituents between sample containers during shipment from the field to the laboratory. Deionized water blanks are taken along for the trip and held unopened in the same cooler with the VOC samples.

7.9.6 Data Verification

After results are received from the analytical laboratory, the QSP or QSP Delegate shall verify the data to ensure that it is complete, accurate and the appropriate QA/QC requirements were met. Data must be verified as soon as the data reports are received. Data verification shall include:

- Check the CoC and laboratory reports.

Make sure all requested analyses were performed and all samples are accounted for in the reports.

- Check laboratory reports to make sure hold times were met and that the reporting levels meet or are lower than the reporting levels agreed to in the contract.
- Check data for outlier values and follow up with the laboratory.

Occasionally typographical errors, unit reporting errors, or incomplete results are reported and should be easily detected. These errors need to be identified, clarified and corrected quickly by the laboratory. The QSP or QSP Delegate should note data that is an order of magnitude or more different than similar locations or is inconsistent with previous data from the same location.

- Check laboratory QA/QC results.

U.S.EPA establishes QA/QC checks and acceptable criteria for laboratory analyses. These data are typically reported along with the sample results. The QSP or QSP Delegate shall evaluate the reported QA/QC data to check for contamination (method, field, and equipment blanks), precision (laboratory matrix spike duplicates) and accuracy (matrix spikes and laboratory control samples). When QA/QC checks are outside acceptable ranges, the laboratory must flag the data and explain the potential impact to the sample results.

- Check the data set for outlier values and, accordingly, confirm results and re-analyze samples where appropriate.

Sample re-analysis should only be undertaken when it appears that some part of the QA/QC resulted in a value out of the accepted range. Sample results may not be discounted unless the analytical laboratory identifies the required QA/QC criteria were not met and confirms this in writing.

Field data including inspections and observations must be verified as soon as the field logs are received, typically at the end of the sampling event. Field data verification shall include:

- Check field logs to verify all required measurements are complete and documented
- Check reported values that appear atypical or inconsistent; follow-up immediately to identify potential reporting or equipment problems, if appropriate, recalibrate equipment after sampling
- Review notations of any errors and actions taken to correct the equipment or recording errors.
- Review observations noted on the field logs
- Verify equipment calibrations

7.10 RECORD RETENTION

All records of stormwater monitoring information and copies of reports, including Annual Reports, must be retained for a period of at least three years from date of submittal or longer if required by the Regional Water Board.

Results of visual monitoring, field measurements and laboratory analytical reports must be kept in the SWPPP along with CoCs and other documentation related to the monitoring.

Records are to be kept onsite while construction is ongoing. Records to be retained include:

- NAL Exceedance Reports
- NEL water quality based corrective action reports
- QA/QC records and results
- TMDL-specific pollutant analytical results and other specific records required by TMDLs
- Calibration records
- Date and approximate time of field measurements and laboratory analyses;
- Date, place and time of inspections, sampling, visual observations and/or measurements, including precipitation
- Dewatering exception notifications to the Regional Water Board and local stormwater agency
- Dewatering notifications to the Regional Water Board
- Names of the individuals who performed inspections, sampling, visual observations and/or field measurements
- Names of the individuals who performed laboratory analyses
- Rain gauge readings from site inspections
- Records of any corrective actions and follow-up activities that resulted from analytical results, visual observations or inspections
- Summary of all analytical results, method detection limits, reporting limits and analytical techniques or methods used
- Visual observation and sample collection exemption records

Section 8 References

California Department of Water Resources (DWR), 1961. Bulletin No. 104 - Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County, Appendix A – Ground Water Geology. June.

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<https://www.lawa.org/-/media/lawa-web/environment/files/final-master-lawa-guidance-manual.ashx>

Los Angeles International Airport (LAX), Stormwater Pollution Prevention Plan Associated with Industrial Activities. January 2018.

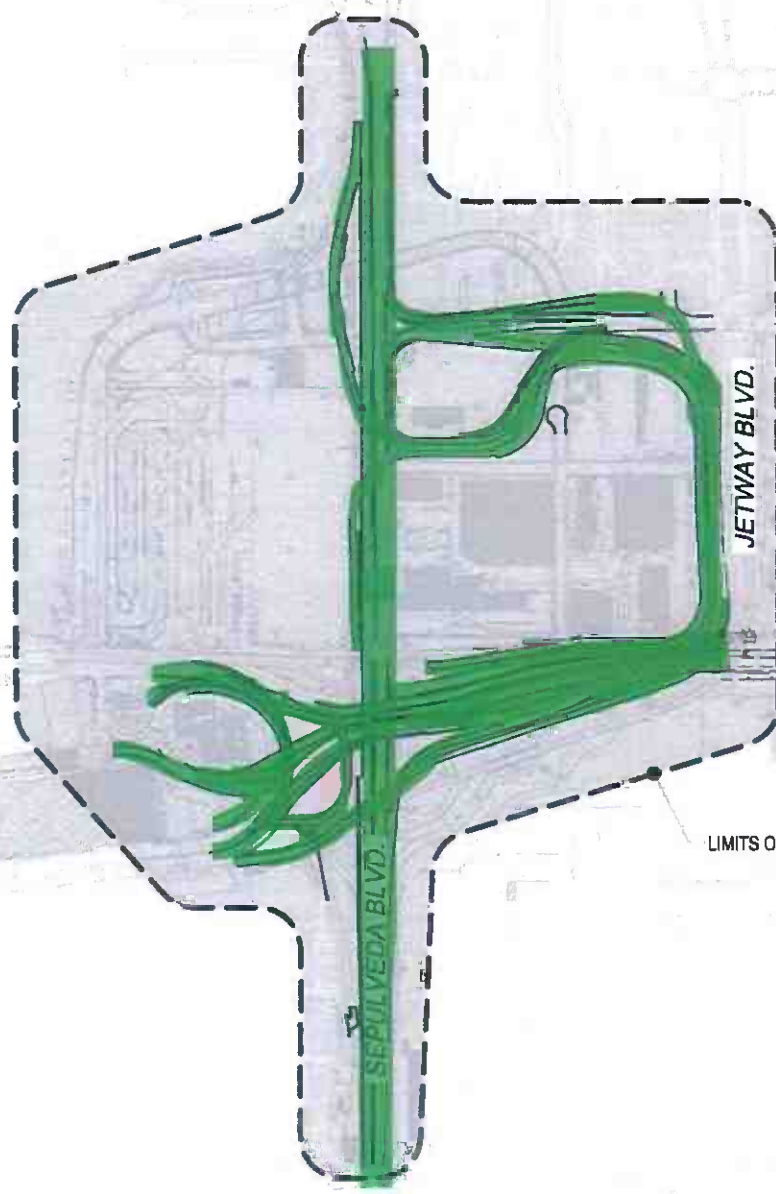
LAWA documents available at link below:
<https://www.lawa.org/atmp/documents>

State Water Resources Control Board (SWRCB), 2022. Order 2022-0057-DWQ, as amended, NPDES General Permit No. CAS000002: *National Pollutant Discharges Elimination System (NPDES) California General Permit for Storm Water Discharge Associated with Construction and Land Disturbing Activities*. Available online at:
https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/general_permit_reissuance.html

Wood Environment & Infrastructure Solutions, Inc. (Wood). 2019. 2019 OFF-SITE GROUNDWATER INVESTIGATION REPORT, Former AlliedSignal Park One Site 9851 South Sepulveda Boulevard Los Angeles, California. December.

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<https://www.lawa.org/atmp/documents>

Appendix A General Vicinity Map and Site BMP Maps



96TH ST.

JETWAY BLVD.

CENTURY BLVD.

LIMITS OF WORK

LAWA ATMP Roadway Improvements Project

Stage 1 – Early Work

Stage 2 to 4 - Offline Segment Construction

Stage 5 to 6 – Major Demolition and Segment Construction

BMP locations of major construction areas are shown in the following maps by stages and phases.



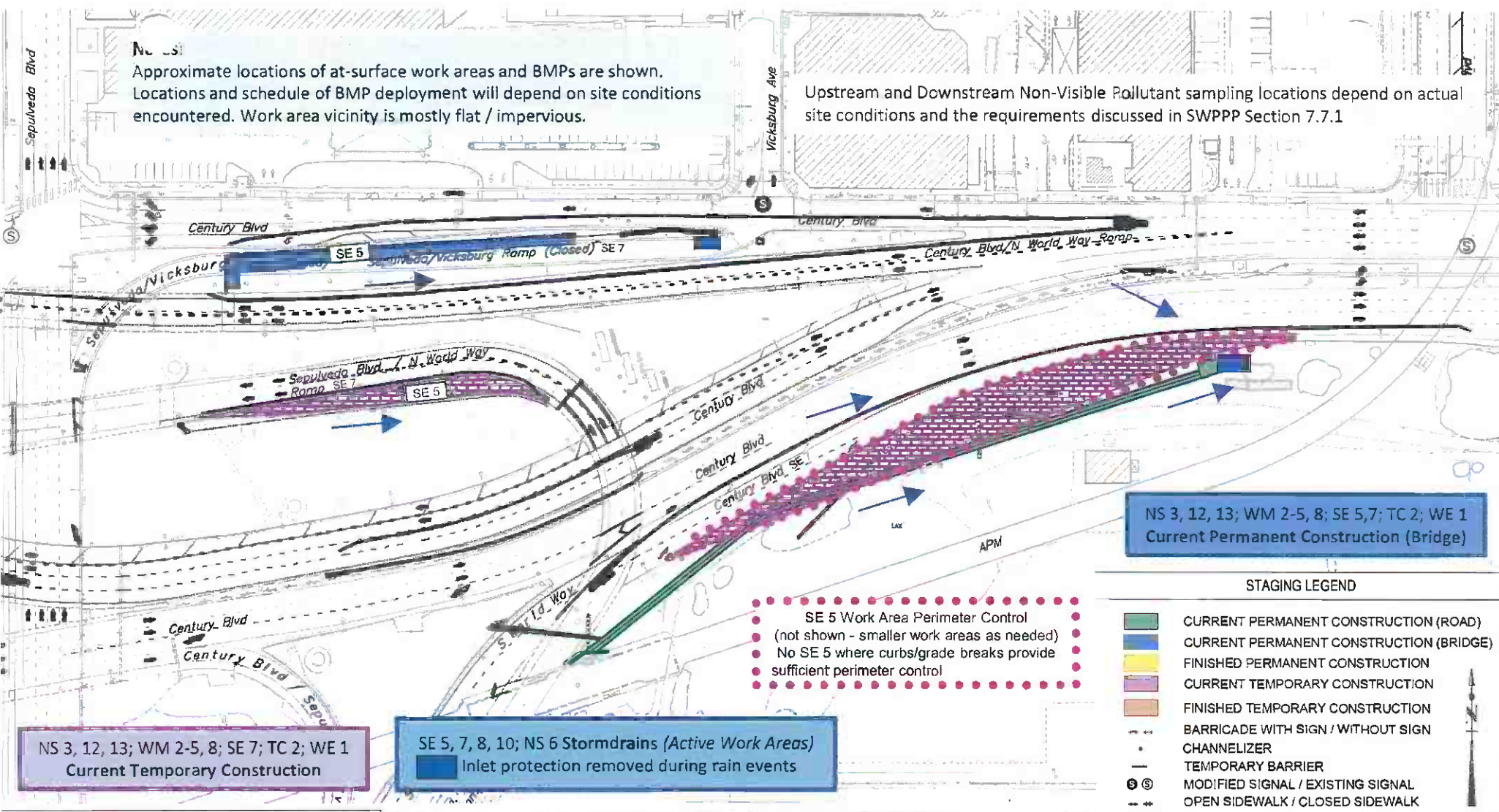
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Revision 4/1/2024

NS 1:

Approximate locations of at-surface work areas and BMPs are shown. Locations and schedule of BMP deployment will depend on site conditions encountered. Work area vicinity is mostly flat / impervious.

Upstream and Downstream Non-Visible Pollutant sampling locations depend on actual site conditions and the requirements discussed in SWPPP Section 7.7.1



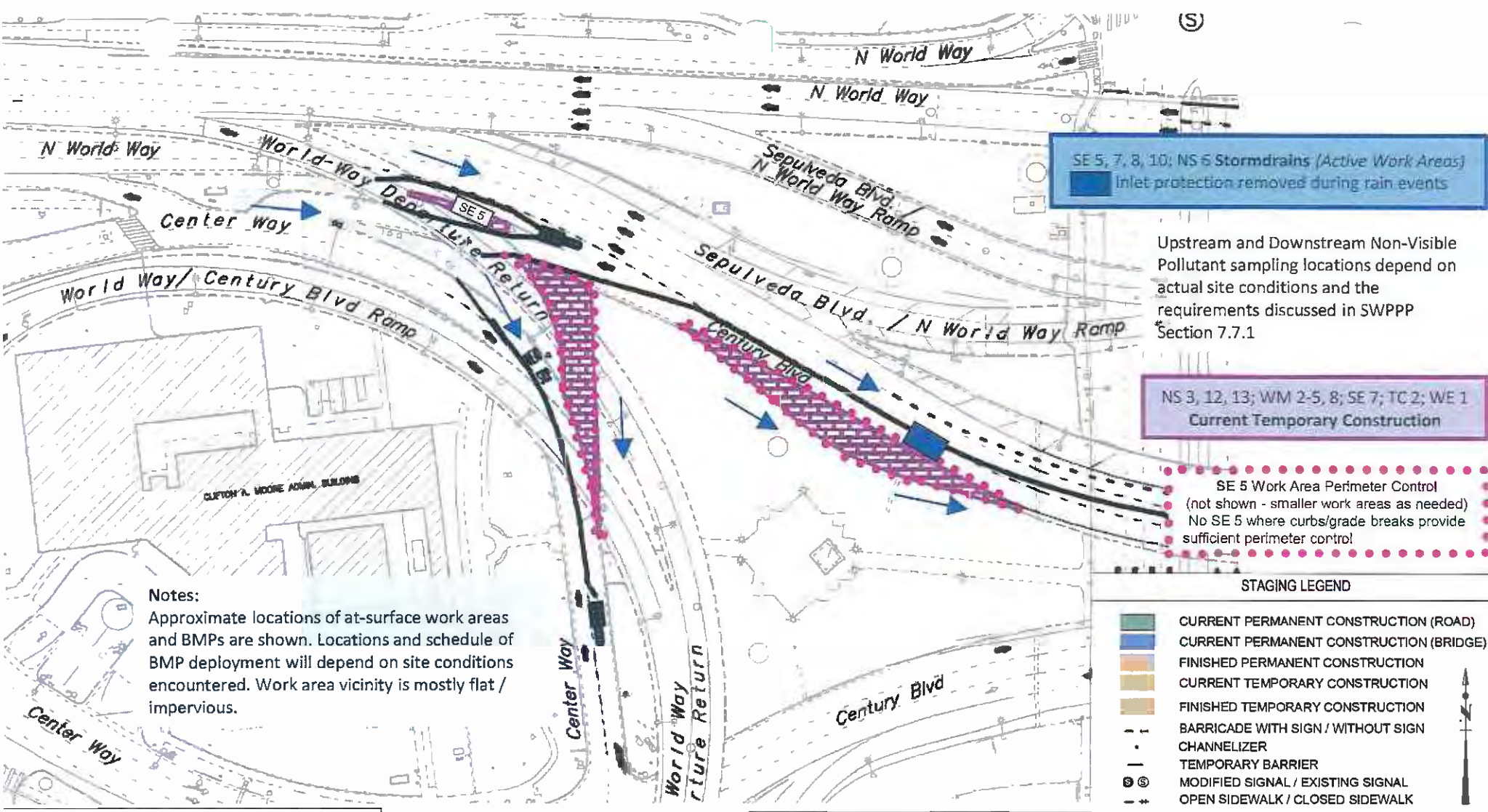
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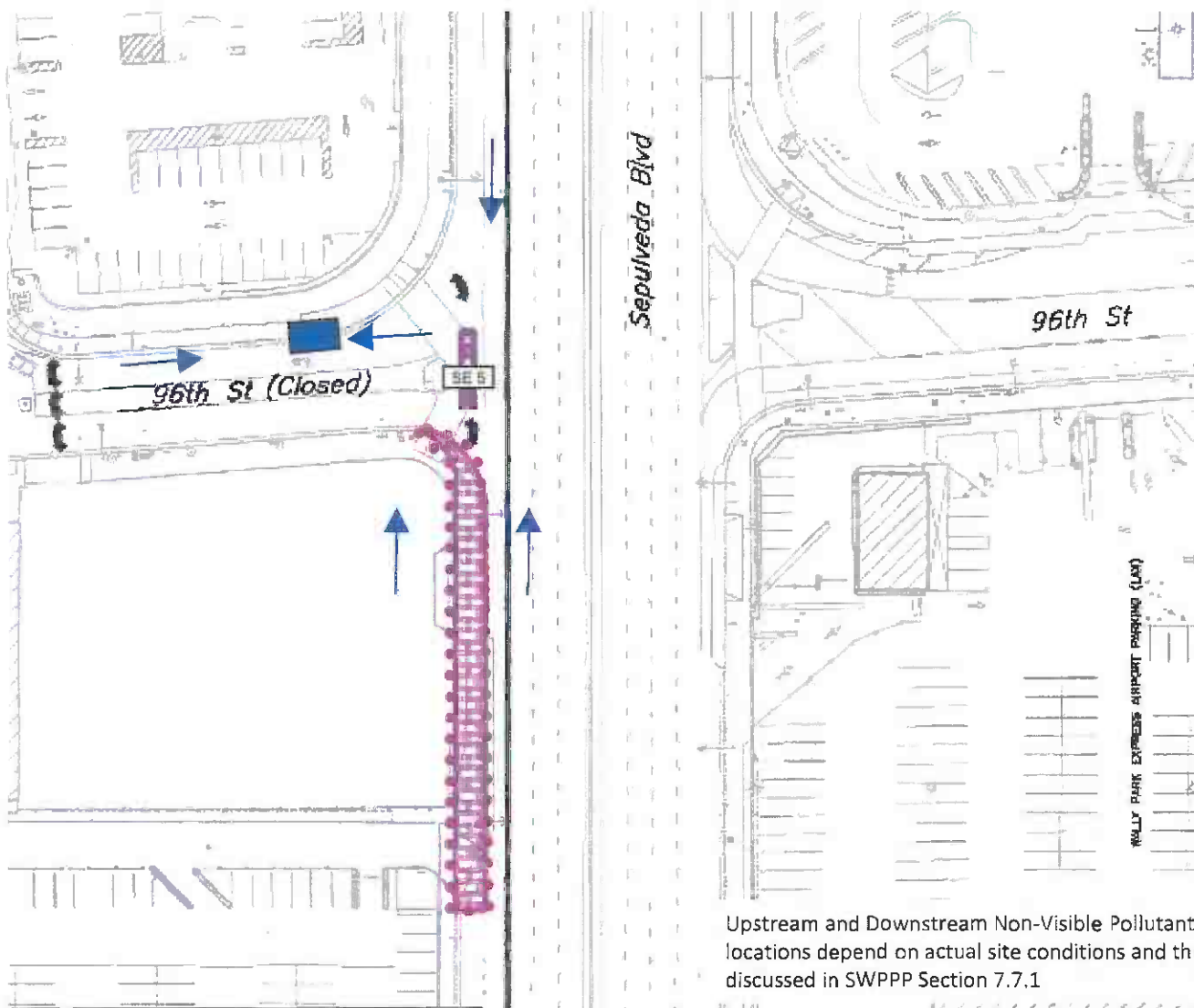
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EC 2: Preservation of Existing Vegetation
EC 5: Soil Binders
EC 7: Geotextiles and Mats
EC 9: Earth Dike / Drainage Swale
EC 10: Velocity Dissipation Device
NS 1: Water Conservation Practices
NS 2: Dewatering Operations
NS 3: Paving and Grinding Operations

NS 6: Illicit Connection / Discharge
NS 8: Vehicle/Equipment Cleaning
NS 9: Vehicle/Equipment Fueling
NS 10: Vehicle/Equipment Maintenance
NS 12: Concrete Curing
NS 13: Concrete Finishing
NS 16: Temporary Batch Plants
SE 1: Silt Fence
SE 2: Sediment Basin
SE 5: Fiber Rolls

SE 7: Street Sweeping and Vacuuming
SE 8: Sandbag Barrier
SE 10: Stormdrain Inlet Protection
TC 1: Stabilized Constr. Entrance/Exit
TC 2: Stabilized Constr. Roadway
TC 3: Entrance Outlet Tire Wash
WE 1: Wind Erosion Control
WM 1: Material Delivery / Storage
WM 2: Material Use
WM 3: Stockpile Management

WM 4: Spill Prevention Control
WM 5: Solid Waste Management
WM 6: Hazardous Waste Management
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Notes:

Approximate locations of at-surface work areas and BMPs are shown. Locations and schedule of BMP deployment will depend on site conditions encountered. Work area vicinity is mostly flat / impervious.

SE 5, 7, 8, 10; NS 6 Stormdrains (Active Work Areas)

Inlet protection removed during rain events

NS 3, 12, 13; WM 2-5, 8; SE 7; TC 2; WE 1
Current Temporary Construction

SE 5 Work Area Perimeter Control
(not shown - smaller work areas as needed)
No SE 5 where curbs/grade breaks provide
sufficient perimeter control

STAGING LEGEND

	CURRENT PERMANENT CONSTRUCTION (ROAD)
	CURRENT PERMANENT CONSTRUCTION (BRIDGE)
	FINISHED PERMANENT CONSTRUCTION
	CURRENT TEMPORARY CONSTRUCTION
	FINISHED TEMPORARY CONSTRUCTION
	BARRICADE WITH SIGN / WITHOUT SIGN
	CHANNELIZER
	TEMPORARY BARRIER
	MODIFIED SIGNAL / EXISTING SIGNAL
	OPEN SIDEWALK / CLOSED SIDEWALK



= flow direction Revision 9/13/2024

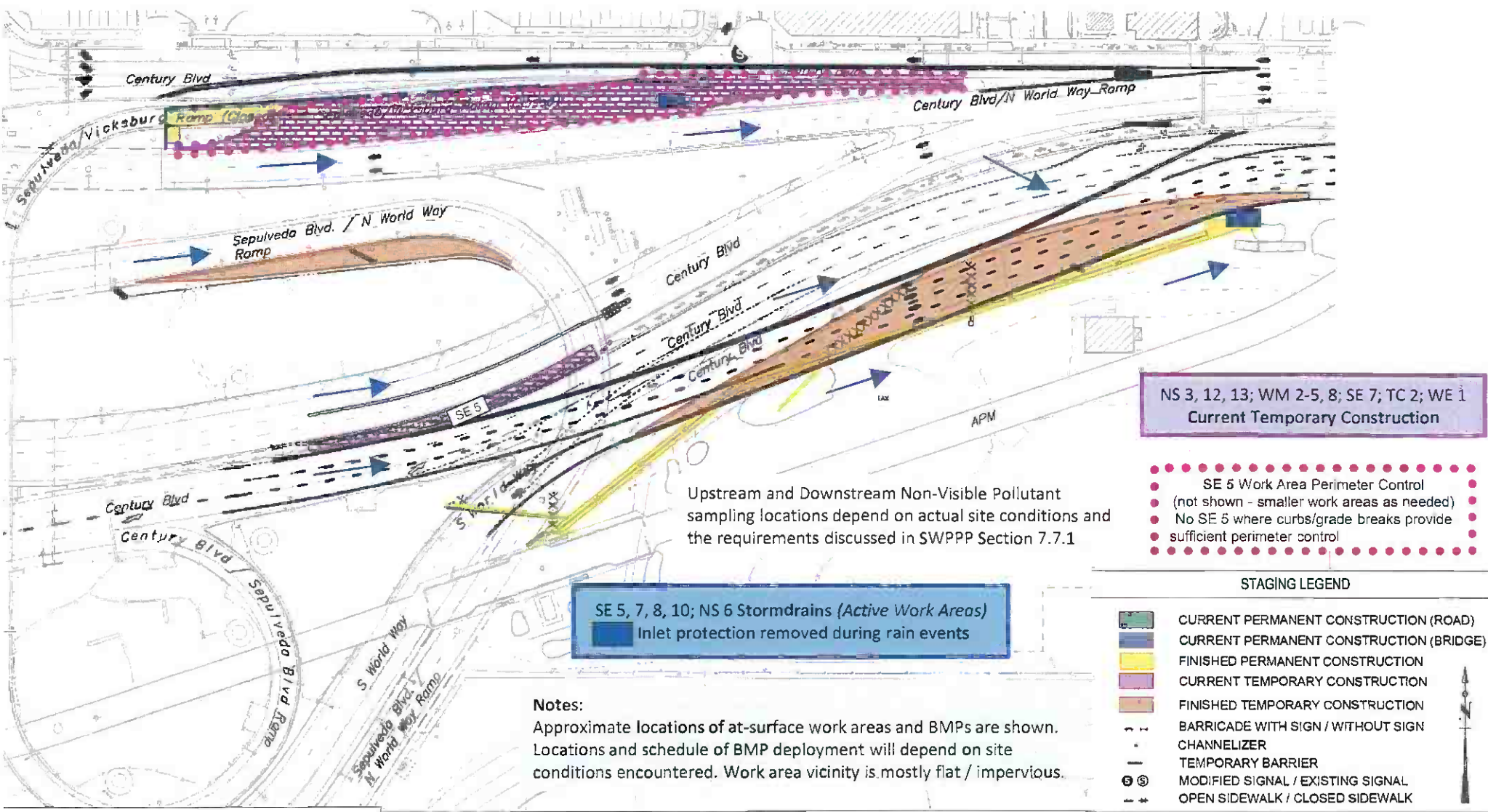
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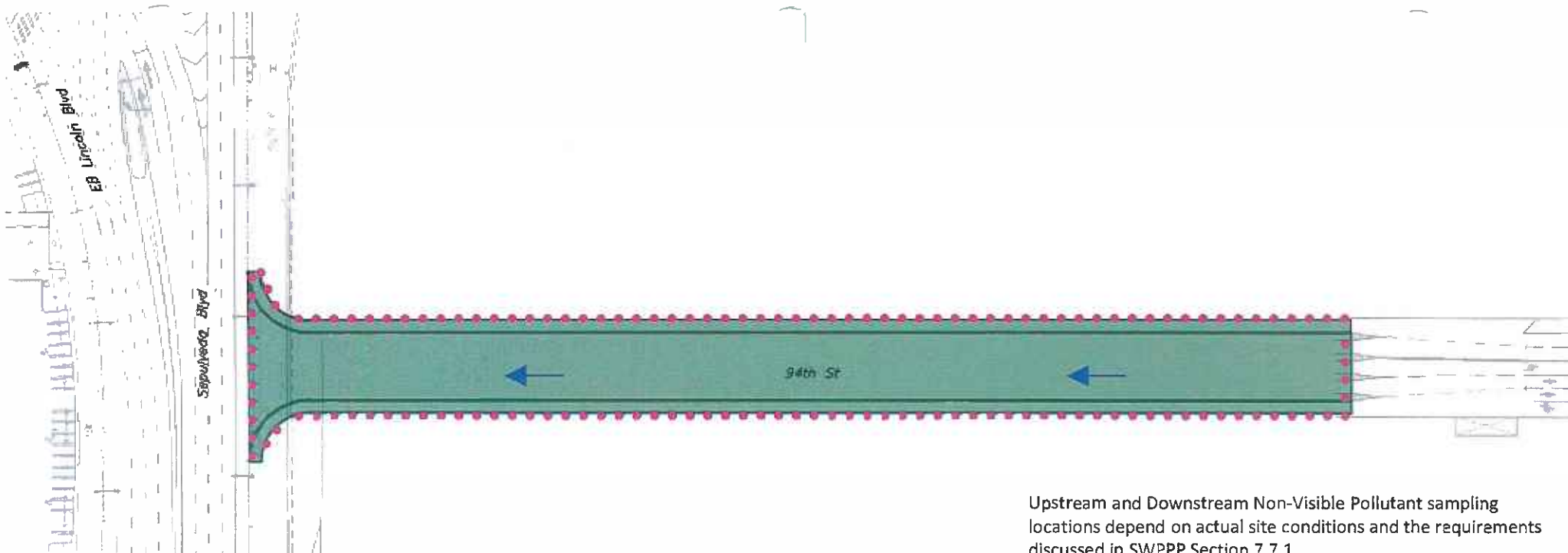
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BMP Legend (not all may be implemented)			
EC 1: Scheduling	NS 6: Illicit Connection / Discharge	SE 7: Street Sweeping and Vacuuming	WM 4: Spill Prevention Control
EC 2: Preservation of Existing Vegetation	NS 8: Vehicle/Equipment Cleaning	SE 8: Sandbag Barrier	WM 5: Solid Waste Management
EC 5: Soil Binders	NS 9: Vehicle/Equipment Fueling	SE 10: Stormdrain Inlet Protection	WM 6: Hazardous Waste Management
EC 7: Geotextiles and Mats	NS 10: Vehicle/Equipment Maintenance	TC 1: Stabilized Constr. Entrance/Exit	WM 7: Contaminated Soil Management
EC 9: Earth Dike / Drainage Swale	NS 12: Concrete Curing	TC 2: Stabilized Constr. Roadway	WM 8: Concrete Waste Management
EC 10: Velocity Dissipation Device	NS 13: Concrete Finishing	TC 3: Entrance Outlet Tire Wash	WM 9: Sanitary Waste Management
NS 1: Water Conservation Practices	NS 16: Temporary Batch Plants	WE 1: Wind Erosion Control	WM 10: Liquid Waste Management
NS 2: Dewatering Operations	SE 1: Silt Fence	WM 1: Material Delivery / Storage	
NS 3: Paving and Grinding Operations	SE 2: Sediment Basin	WM 2: Material Use	
	SE 5: Fiber Rolls	WM 3: Stockpile Management	



Upstream and Downstream Non-Visible Pollutant sampling locations depend on actual site conditions and the requirements discussed in SWPPP Section 7.7.1

SE 5 Work Area Perimeter Control
(not shown - smaller work areas as needed)
No SE 5 where curbs/grade breaks provide
sufficient perimeter control

Notes:

Approximate locations of at-surface work areas and BMPs are shown.
Locations and schedule of BMP deployment will depend on site
conditions encountered. Work area vicinity is mostly flat / impervious.

STAGING LEGEND

	CURRENT PERMANENT CONSTRUCTION (ROAD)
	CURRENT PERMANENT CONSTRUCTION (BRIDGE)
	FINISHED PERMANENT CONSTRUCTION
	CURRENT TEMPORARY CONSTRUCTION
	FINISHED TEMPORARY CONSTRUCTION
	BARRICADE WITH SIGN / WITHOUT SIGN
	CHANNELIZER
	TEMPORARY BARRIER
	MODIFIED SIGNAL / EXISTING SIGNAL
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WM 4: Spill Prevention Control
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NS 3, 12, 13; WM 2-5, 8; SE 5, 7; TC 2; WE 1
Current Permanent Construction (Road)

SE 5 Work Area Perimeter Control
(not shown - smaller work areas as needed)
No SE 5 where curbs/grade breaks provide
sufficient perimeter control

SE 5, 7, 8, 10; NS 6 Stormdrains (Active Work Areas)
Inlet protection removed during rain events

Notes:

Approximate locations of at-surface work areas and BMPs are shown. Locations and schedule of BMP deployment will depend on site conditions encountered. Work area vicinity is mostly flat / impervious.

NS 3, 12, 13; WM 2-5, 8; SE 5, 7; TC 2; WE 1
Current Permanent Construction (Bridge)

STAGING LEGEND

- CURRENT PERMANENT CONSTRUCTION (ROAD)
- CURRENT PERMANENT CONSTRUCTION (BRIDGE)
- FINISHED PERMANENT CONSTRUCTION
- CURRENT TEMPORARY CONSTRUCTION
- FINISHED TEMPORARY CONSTRUCTION
- BARRICADE WITH SIGN / WITHOUT SIGN
- CHANNELIZER
- TEMPORARY BARRIER
- MODIFIED SIGNAL / EXISTING SIGNAL
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Upstream and Downstream Non-Visible Pollutant sampling locations depend on actual site conditions and the requirements discussed in SWPPP Section 7.7.1

BMP Legend (not all may be implemented)

- EC 1: Scheduling
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	FINISHED TEMPORARY CONSTRUCTION
	BARRICADE WITH SIGN / WITHOUT SIGN
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SE 5, 7, 8, 10; NS 6 Stormdrains (Active Work Areas)
Inlet protection removed during rain events

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STAGING LEGEND

- | | |
|---|---|
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NS 3, 12, 13; WM 2-5, 8; SE 5, 7; TC 2; WE 1
Current Permanent Construction (Bridge)

NS 3, 12, 13; WM 2-5, 8; SE 5, 7; TC 2; WE 1
Current Permanent Construction (Road)

STAGING LEGEND

	CURRENT PERMANENT CONSTRUCTION (ROAD)
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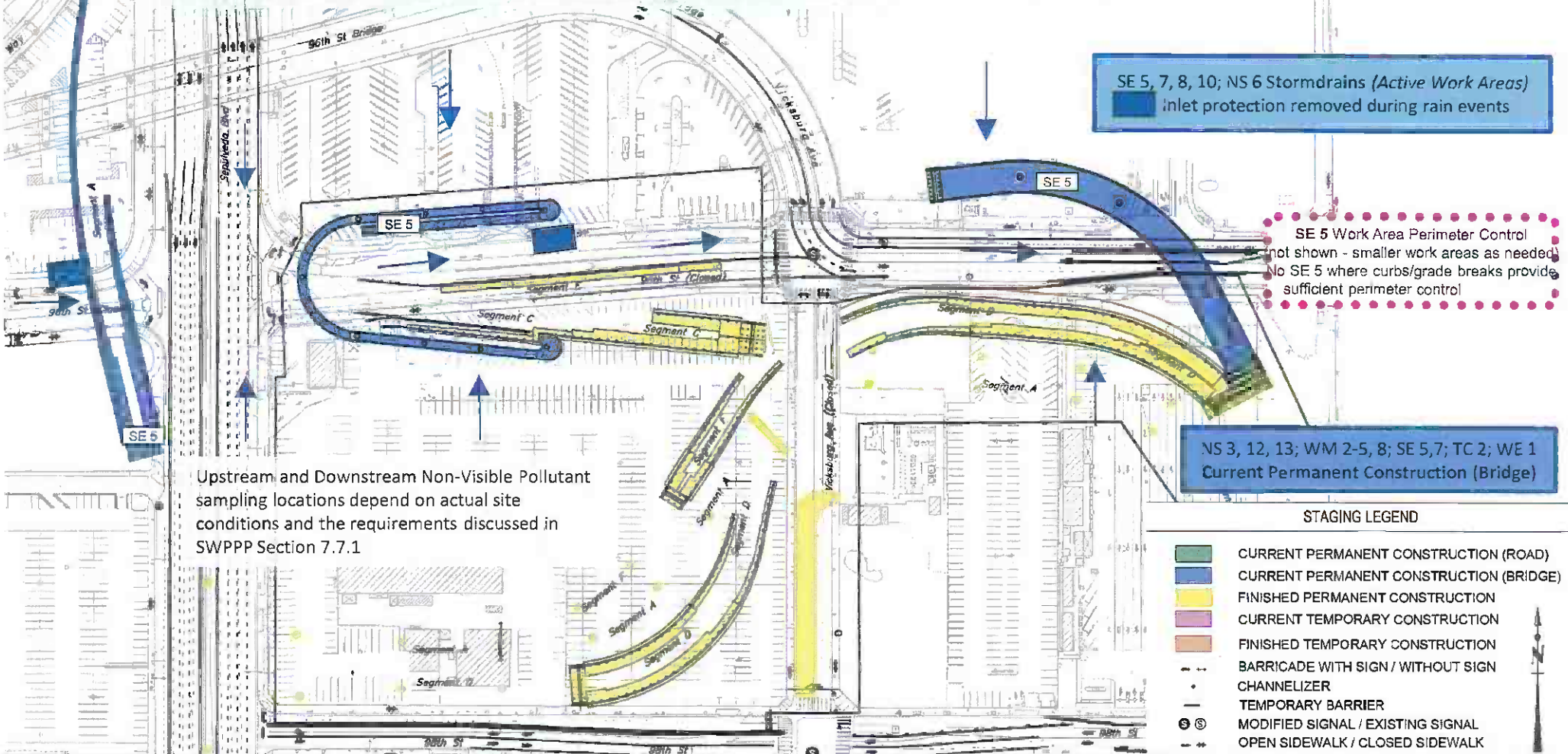
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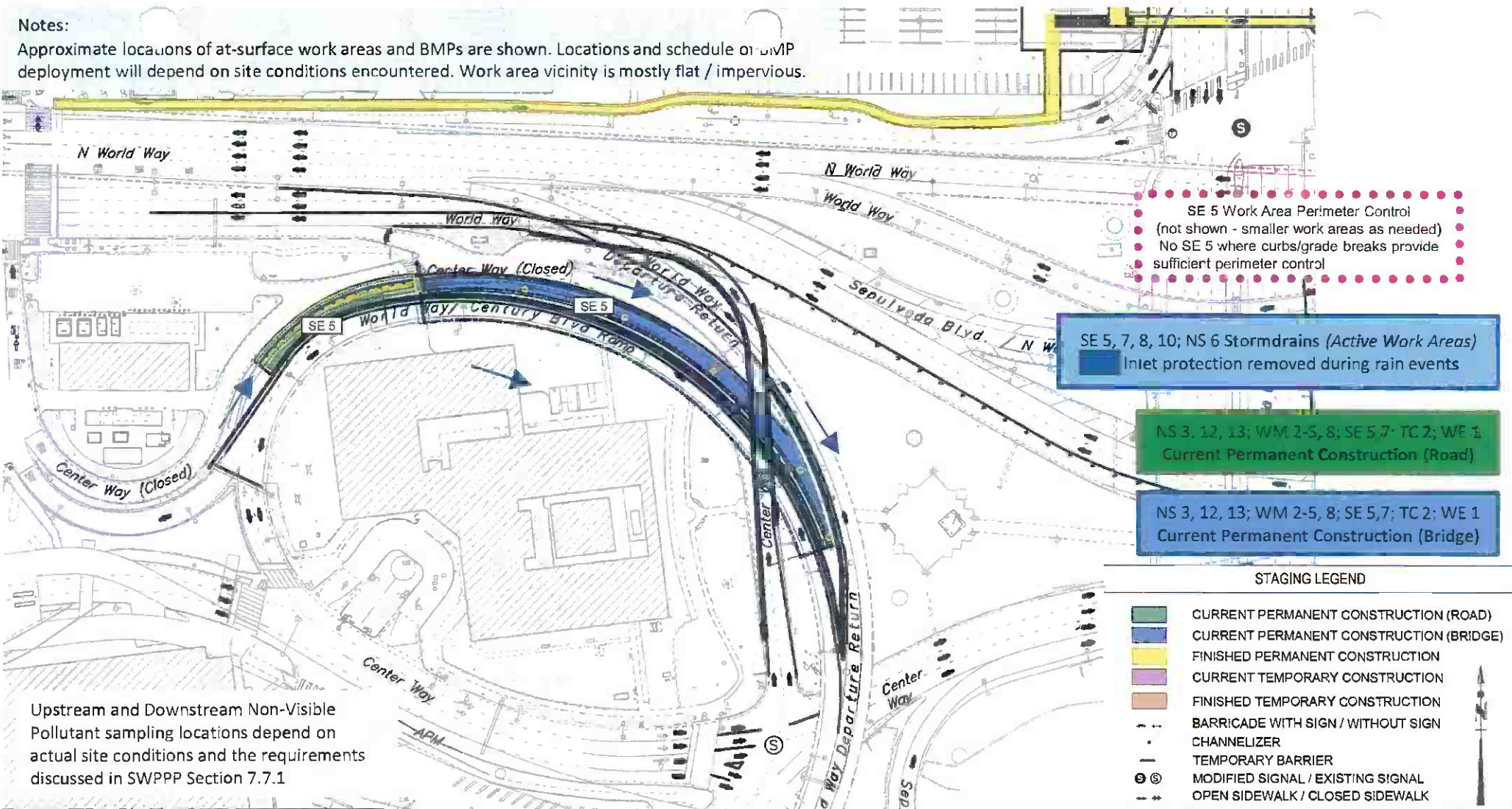
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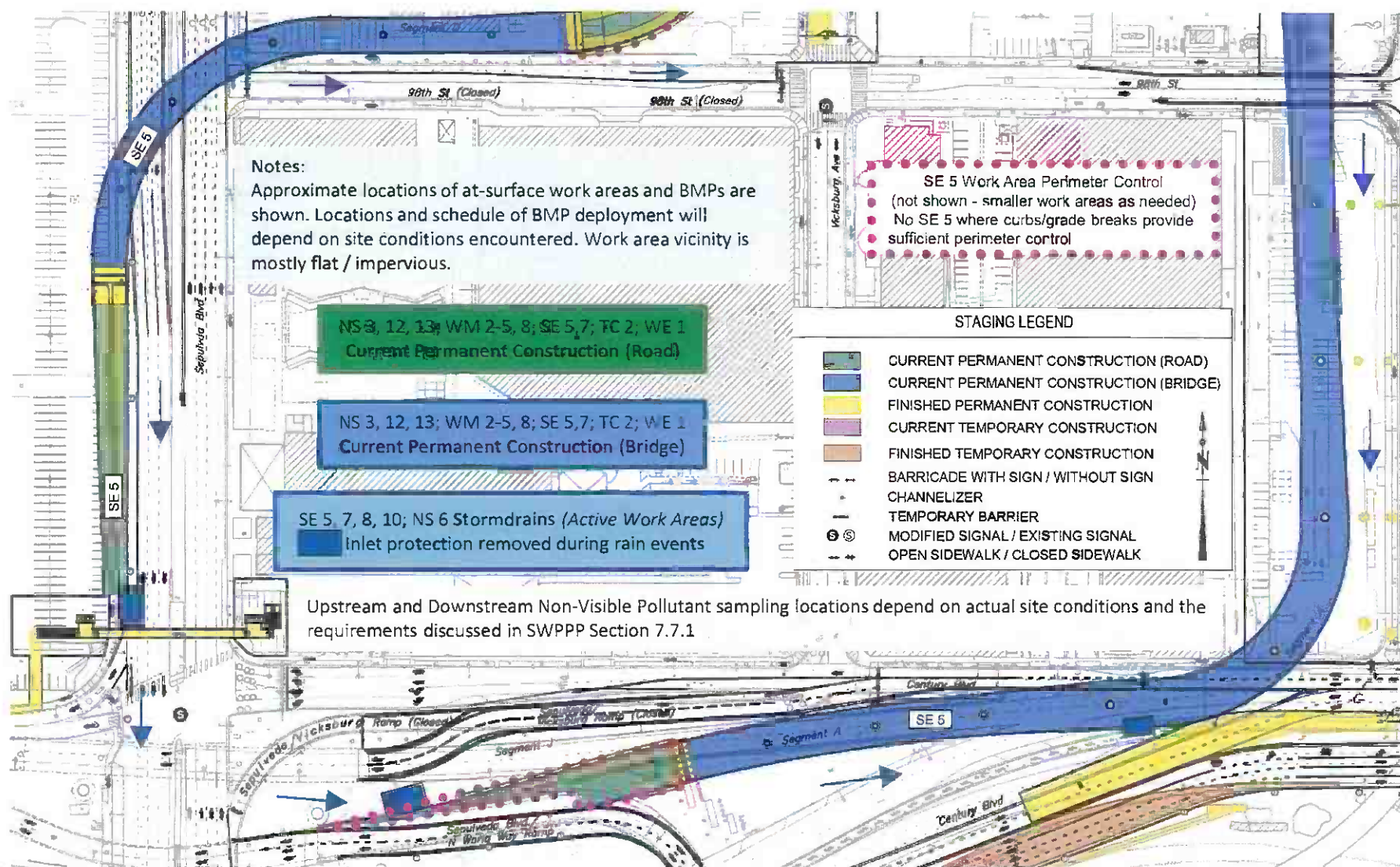
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NS 8: Vehicle/Equipment Cleaning
NS 9: Vehicle/Equipment Fueling
NS 10: Vehicle/Equipment Maintenance
NS 12: Concrete Curing
NS 13: Concrete Finishing
NS 16: Temporary Batch Plants
SE 1: Silt Fence
SE 2: Sediment Basin
SE 5: Fiber Rolls

SE 7: Street Sweeping and Vacuuming
SE 8: Sandbag Barrier
SE 10: Stormdrain Inlet Protection
TC 1: Stabilized Constr. Entrance/Exit
TC 2: Stabilized Constr. Roadway
TC 3: Entrance Outlet Tire Wash
WE 1: Wind Erosion Control
WM 1: Material Delivery / Storage
WM 2: Material Use
WM 3: Stockpile Management

← = flow direction Revision 9/13/2024

WM 4: Spill Prevention Control
WM 5: Solid Waste Management
WM 6: Hazardous Waste Management
WM 7: Contaminated Soil Management
WM 8: Concrete Waste Management
WM 9: Sanitary Waste Management
WM 10: Liquid Waste Management



BMP Legend (not all may be implemented)

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- EC 2: Preservation of Existing Vegetation
- EC 5: Soil Binders
- EC 7: Geotextiles and Mats
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- EC 10: Velocity Dissipation Device
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- NS 2: Dewatering Operations
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Notes:

Approximate locations of at-surface work areas and BMPs are shown. Locations and schedule of BMP deployment will depend on site conditions encountered. Work area vicinity is mostly flat / impervious.

SE 5, 7, 8, 10; NS 6 Stormdrains (Active Work Areas)
Inlet protection removed during rain events

NS 3, 12, 13; WM 2-5, 8; SE 7; TC 2; WE 1
Current Temporary Construction

NS 3, 12, 13; WM 2-5, 8; SE 5, 7; TC 2; WE 1
Current Permanent Construction (Road)

NS 3, 12, 13; WM 2-5, 8; SE 5, 7; TC 2; WE 1
Current Permanent Construction (Bridge)

SE 5 Work Area Perimeter Control
(not shown - smaller work areas as needed)
No SE 5 where curbs/grade breaks provide
sufficient perimeter control

Upstream and Downstream Non-Visible Pollutant sampling locations depend on actual site conditions and the requirements discussed in SWPPP Section 7.7.1

STAGING LEGEND

	CURRENT PERMANENT CONSTRUCTION (ROAD)
	CURRENT PERMANENT CONSTRUCTION (BRIDGE)
	FINISHED PERMANENT CONSTRUCTION
	CURRENT TEMPORARY CONSTRUCTION
	FINISHED TEMPORARY CONSTRUCTION
	BARRICADE WITH SIGN / WITHOUT SIGN
	CHANNELIZER
	TEMPORARY BARRIER
	MODIFIED SIGNAL / EXISTING SIGNAL
	OPEN SIDEWALK / CLOSED SIDEWALK

BMP Legend (not all may be implemented)

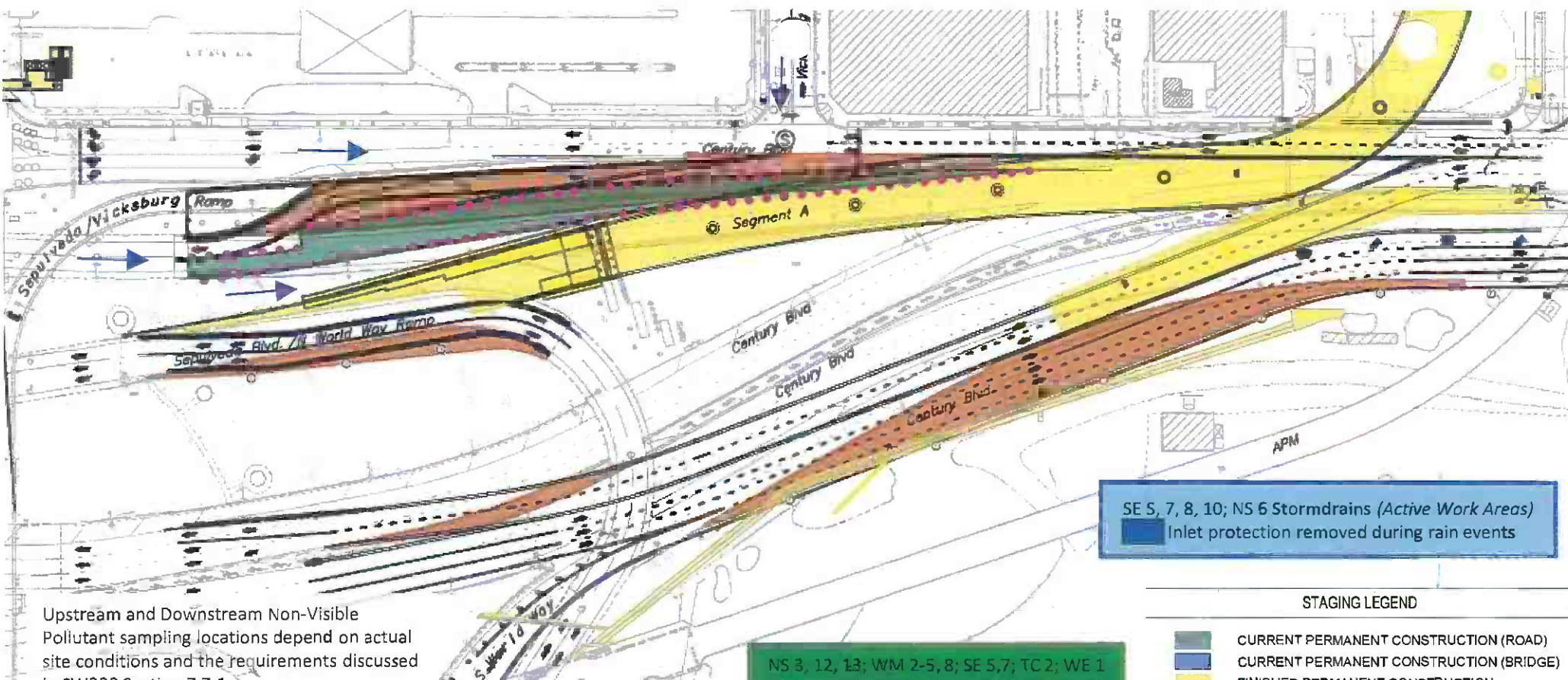
EC 1: Scheduling
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EC 7: Geotextiles and Mats
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= flow direction Revision 9/13/2024

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Upstream and Downstream Non-Visible Pollutant sampling locations depend on actual site conditions and the requirements discussed in SWPPP Section 7.7.1

Notes:
Approximate locations of at-surface work areas and BMPs are shown. Locations and schedule of BMP deployment will depend on site conditions encountered. Work area vicinity is mostly flat / impervious.

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SE 5, 7, 8, 10; NS 6 Stormdrains (Active Work Areas)
Inlet protection removed during rain events

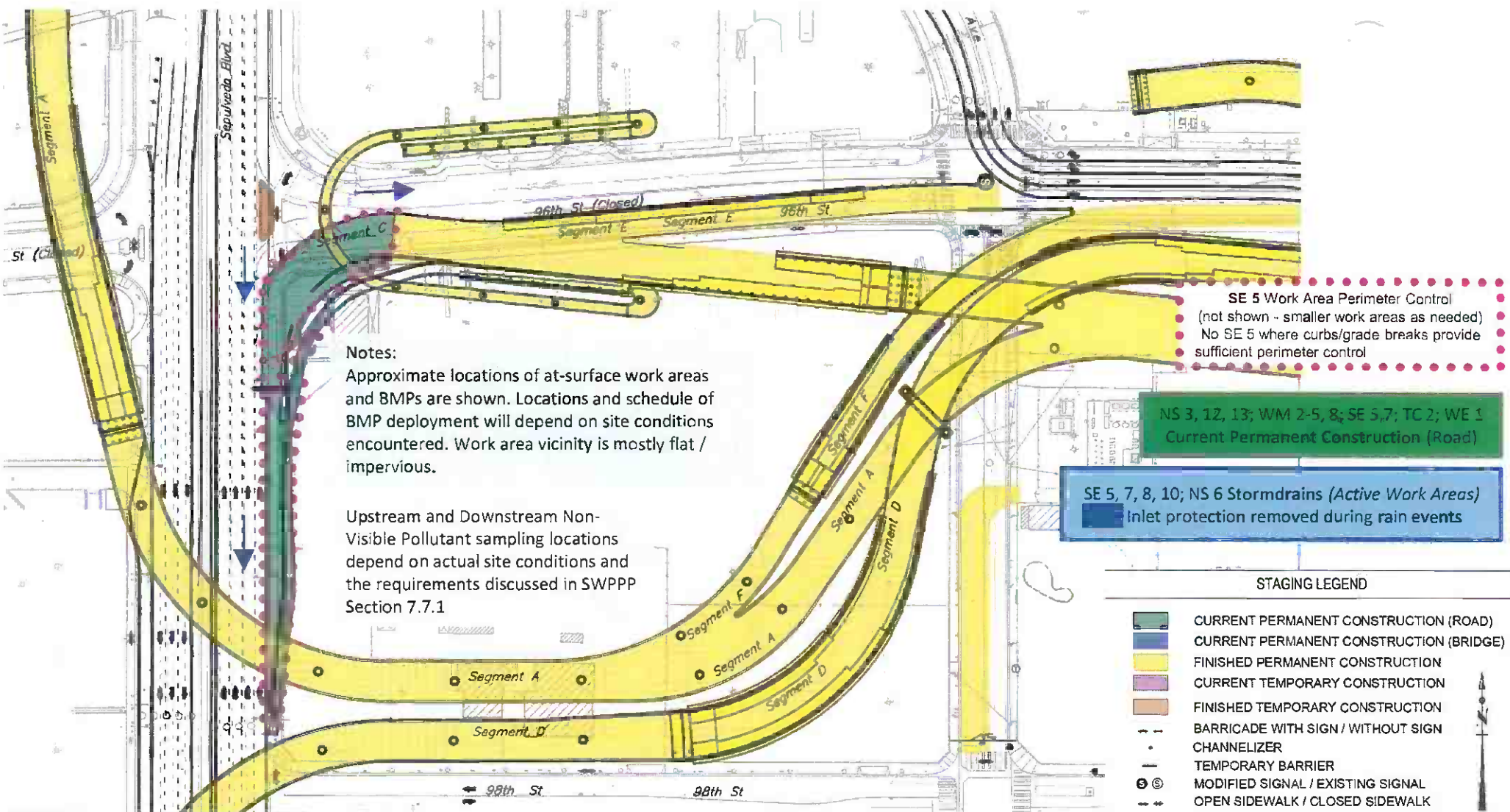
NS 3, 12, 13; WM 2-5, 8; SE 5, 7; TC 2; WE 1
Current Permanent Construction (Road)

SE 5 Work Area Perimeter Control
(not shown - smaller work areas as needed)
No SE 5 where curbs/grade breaks provide sufficient perimeter control

STAGING LEGEND

	CURRENT PERMANENT CONSTRUCTION (ROAD)
	CURRENT PERMANENT CONSTRUCTION (BRIDGE)
	FINISHED PERMANENT CONSTRUCTION
	CURRENT TEMPORARY CONSTRUCTION
	FINISHED TEMPORARY CONSTRUCTION
	BARRICADE WITH SIGN / WITHOUT SIGN
	CHANNELIZER
	TEMPORARY BARRIER
	MODIFIED SIGNAL / EXISTING SIGNAL
	OPEN SIDEWALK / CLOSED SIDEWALK

= flow direction Revision 9/13/2024



BMP Legend (not all may be implemented)

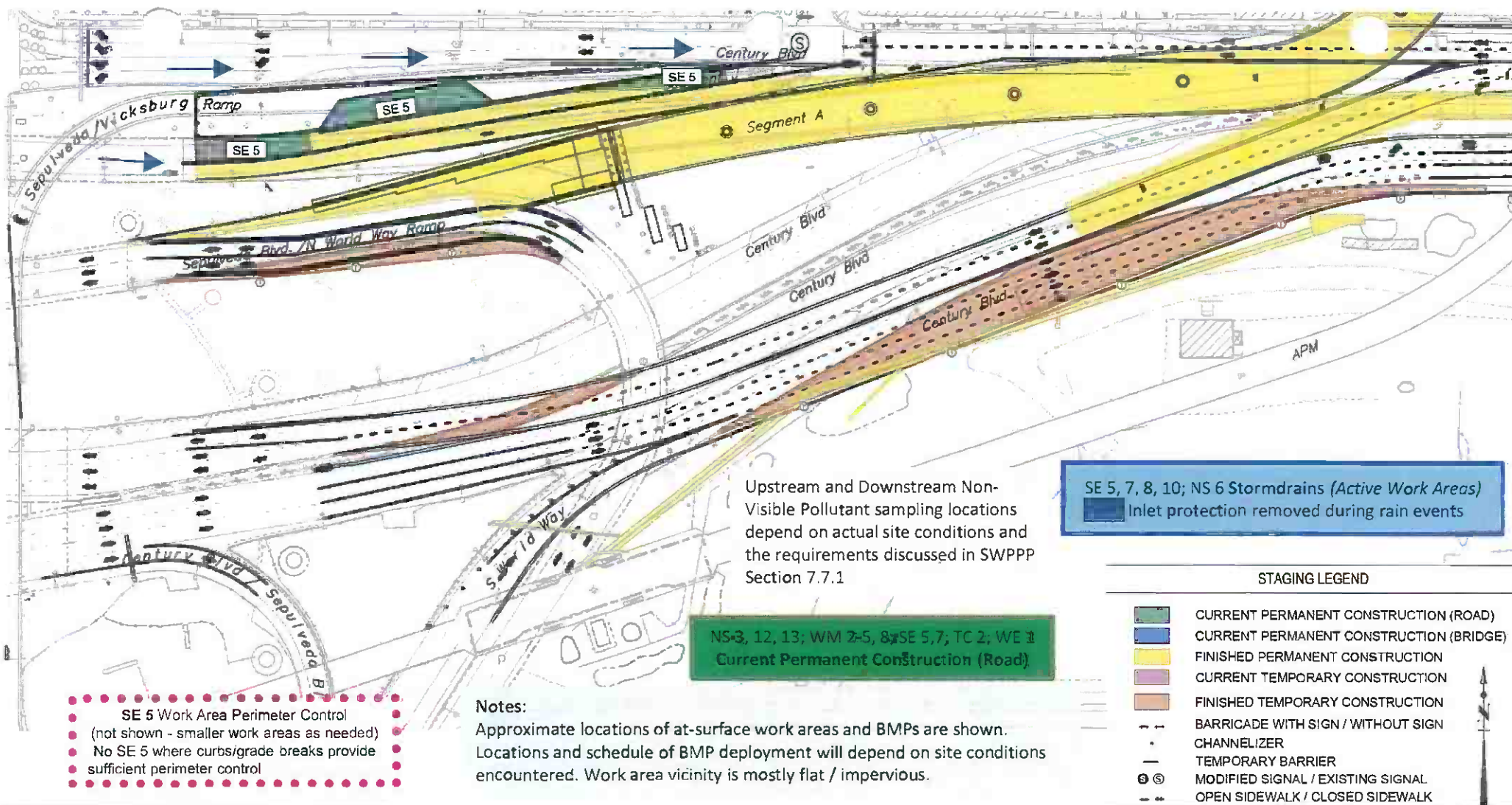
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← = flow direction Revision 9/13/2024

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WM 10: Liquid Waste Management



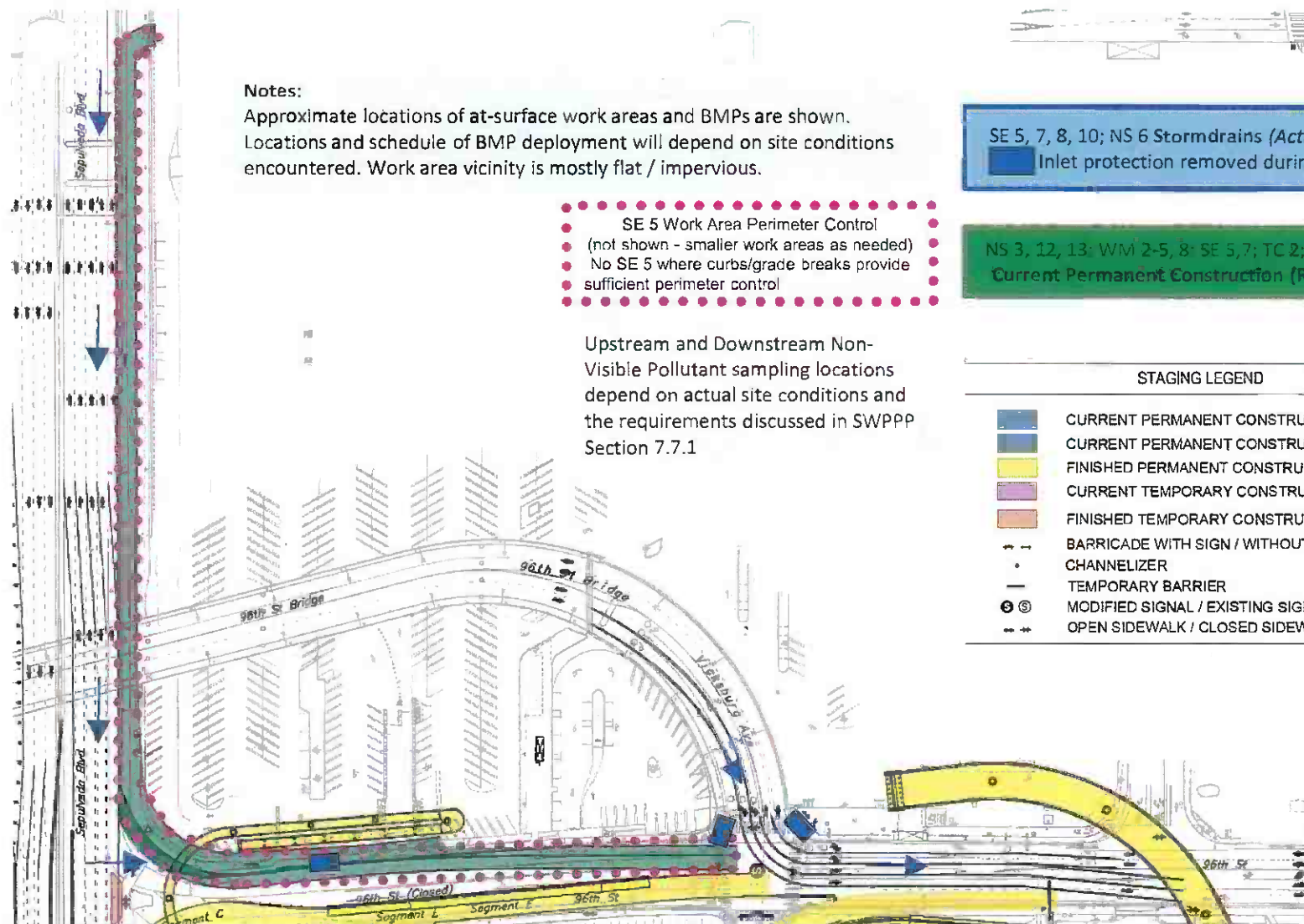
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Notes:

Approximate locations of at-surface work areas and BMPs are shown. Locations and schedule of BMP deployment will depend on site conditions encountered. Work area vicinity is mostly flat / impervious.

- SE 5 Work Area Perimeter Control (not shown - smaller work areas as needed)
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Upstream and Downstream Non-Visible Pollutant sampling locations depend on actual site conditions and the requirements discussed in SWPPP Section 7.7.1

SE 5, 7, 8, 10; NS 6 Stormdrains (Active Work Areas)
Inlet protection removed during rain events

NS 3, 12, 13; WM 2-5, 8; SE 5,7; TC 2; WE 1
Current Permanent Construction (Road)

STAGING LEGEND

- CURRENT PERMANENT CONSTRUCTION (ROAD)
- CURRENT PERMANENT CONSTRUCTION (BRIDGE)
- FINISHED PERMANENT CONSTRUCTION
- CURRENT TEMPORARY CONSTRUCTION
- FINISHED TEMPORARY CONSTRUCTION
- BARRICADE WITH SIGN / WITHOUT SIGN
- CHANNELIZER
- TEMPORARY BARRIER
- MODIFIED SIGNAL / EXISTING SIGNAL
- OPEN SIDEWALK / CLOSED SIDEWALK

BMP Legend (not all may be implemented)

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- EC 5: Soil Binders
- EC 7: Geotextiles and Mats
- EC 9: Earth Dike / Drainage Swale
- EC 10: Velocity Dissipation Device
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- NS 3: Paving and Grinding Operations

- NS 6: Illicit Connection / Discharge
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- SE 5: Fiber Rolls

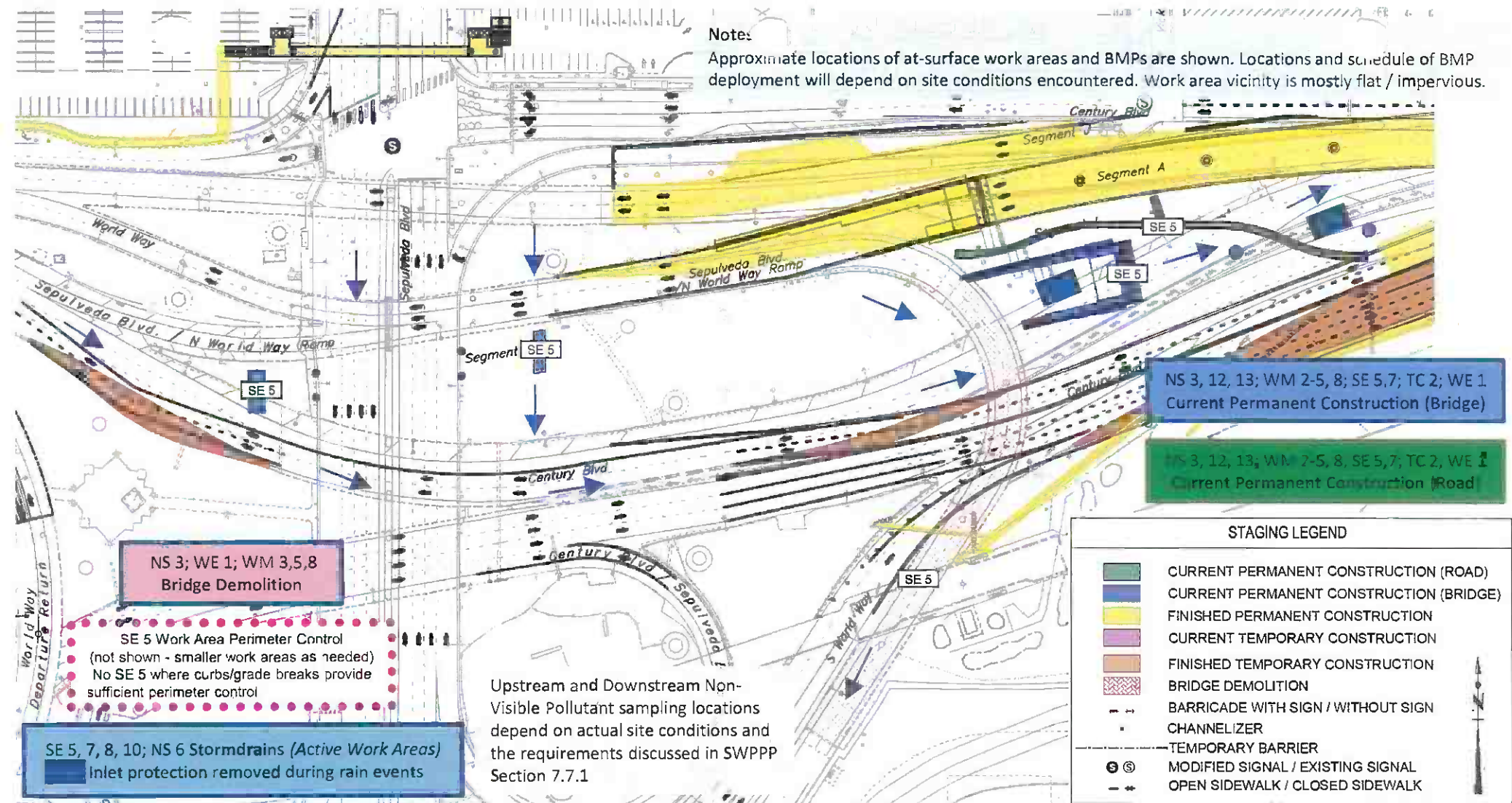
- SE 7: Street Sweeping and Vacuuming
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- WE 1: Wind Erosion Control
- WM 1: Material Delivery / Storage
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← = flow direction Revision 9/13/2024

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Notes

Approximate locations of at-surface work areas and BMPs are shown. Locations and schedule of BMP deployment will depend on site conditions encountered. Work area vicinity is mostly flat / impervious.



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Notes:

Approximate locations of at-surface work areas and BMPs are shown. Locations and schedule of BMP deployment will depend on site conditions encountered. Work area vicinity is mostly flat / impervious.

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Upstream and Downstream Non-Visible Pollutant sampling locations depend on actual site conditions and the requirements discussed in SWPPP Section 7.7.1

STAGING LEGEND

	CURRENT PERMANENT CONSTRUCTION (ROAD)
	CURRENT PERMANENT CONSTRUCTION (BRIDGE)
	FINISHED PERMANENT CONSTRUCTION
	CURRENT TEMPORARY CONSTRUCTION
	FINISHED TEMPORARY CONSTRUCTION
	BRIDGE DEMOLITION
	BARRICADE WITH SIGN / WITHOUT SIGN
	CHANNELIZER
	TEMPORARY BARRIER
	MODIFIED SIGNAL / EXISTING SIGNAL
	OPEN SIDEWALK / CLOSED SIDEWALK

SE 5, 7, 8, 10; NS 6 Stormdrains (Active Work Areas)
Inlet protection removed during rain events

NS 3, 12, 13; WM 2-5, 8; SE 5, 7; TC 2; WE 1
Current Permanent Construction (Road)

NS 3, 12, 13; WM 2-5, 8; SE 5, 7; TC 2; WE 1
Current Permanent Construction (Bridge)

NS 3; WE 1; WM 3, 5, 8
Bridge Demolition

BMP Legend (not all may be implemented)

EC 1: Scheduling
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WM 1: Material Delivery / Storage
WM 2: Material Use
WM 3: Stockpile Management

← = flow direction Revision 9/13/2024

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WM 6: Hazardous Waste Management
WM 7: Contaminated Soil Management
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WM 10: Liquid Waste Management

SKANSKA FLATIRON

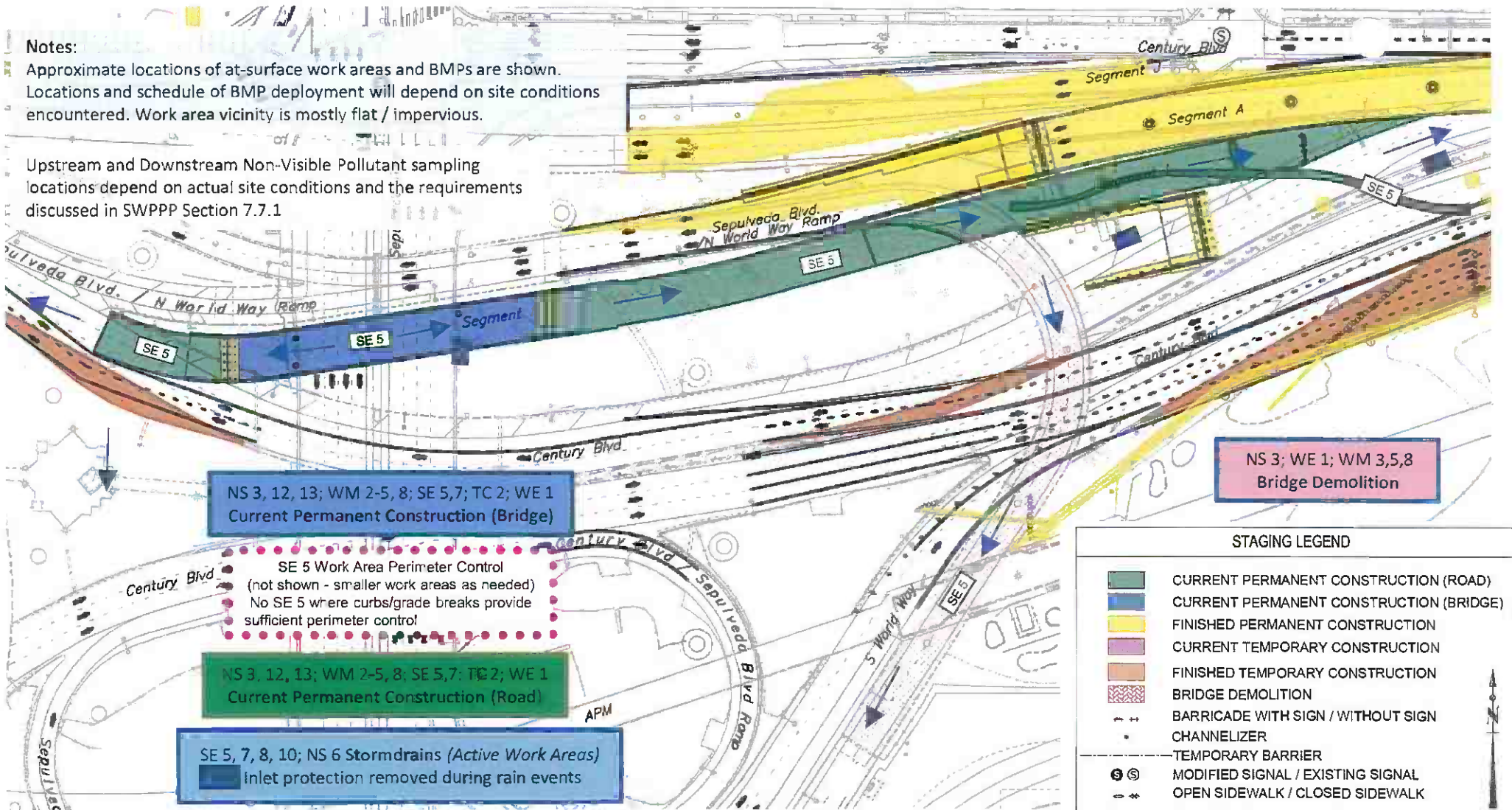
KRONER
ENVIRONMENTAL SERVICES, INC.

Stormwater Pollution Prevention Plan Appendix A
LAWA Airfield and Terminal Modernization Program
Roadway Improvements Project Stage 4 - Phase 1

Notes:

Approximate locations of at-surface work areas and BMPs are shown. Locations and schedule of BMP deployment will depend on site conditions encountered. Work area vicinity is mostly flat / impervious.

Upstream and Downstream Non-Visible Pollutant sampling locations depend on actual site conditions and the requirements discussed in SWPPP Section 7.7.1



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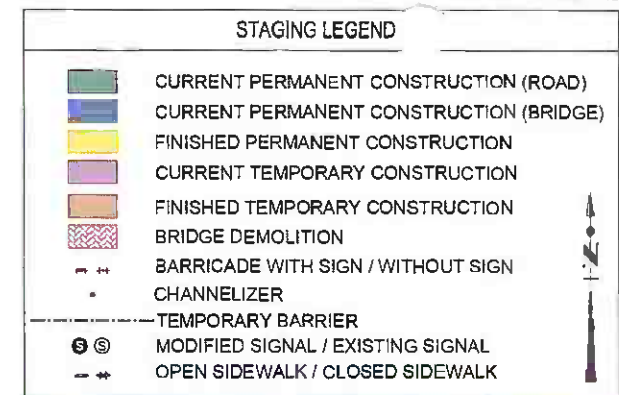
WM 4: Spill Prevention Control
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Notes:

Approximate locations of at-surface work areas and BMPs are shown. Locations and schedule of BMP deployment will depend on site conditions encountered. Work area vicinity is mostly flat / impervious.

Upstream and Downstream Non-Visible Pollutant sampling locations depend on actual site conditions and the requirements discussed in SWPPP Section 7.7.1

- SE 5 Work Area Perimeter Control
- (not shown - smaller work areas as needed)
- No SE 5 where curbs/grade breaks provide sufficient perimeter control



SE 5, 7, 8, 10; NS 6 Stormdrains (Active Work Areas)
Inlet protection removed during rain events

NS 4, 12, 13; WM 2, 5, 8; SE 5, 7, TC 2; WE 1
Current Permanent Construction (Road)

NS 3; WE 1; WM 3, 5, 8
Bridge Demolition

BMP Legend (not all may be implemented)

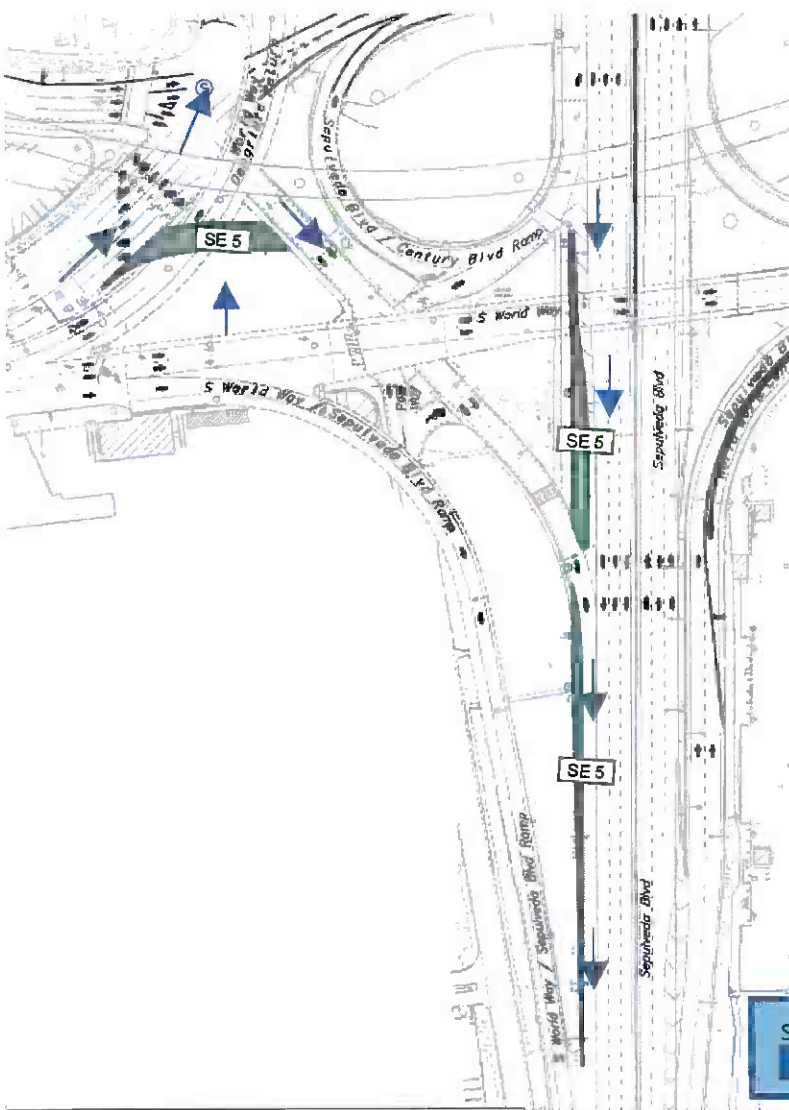
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Upstream and Downstream Non-Visible Pollutant sampling locations depend on actual site conditions and the requirements discussed in SWPPP Section 7.7.1

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- (not shown - smaller work areas as needed)
- No SE 5 where curbs/grade breaks provide sufficient perimeter control

NS 3, 12, 13; WM 2-5, 8; SE 5, 7; TC 2; WE 1
Current Permanent Construction (Road)

SE 5, 7, 8, 10; NS 6 Stormdrains (Active Work Areas)
Inlet protection removed during rain events

STAGING LEGEND

- CURRENT PERMANENT CONSTRUCTION (ROAD)
- CURRENT PERMANENT CONSTRUCTION (BRIDGE)
- FINISHED PERMANENT CONSTRUCTION
- CURRENT TEMPORARY CONSTRUCTION
- FINISHED TEMPORARY CONSTRUCTION
- BRIDGE DEMOLITION
- BARRICADE WITH SIGN / WITHOUT SIGN
- CHANNELIZER
- TEMPORARY BARRIER
- MODIFIED SIGNAL / EXISTING SIGNAL
- OPEN SIDEWALK / CLOSED SIDEWALK

BMP Legend (not all may be implemented)

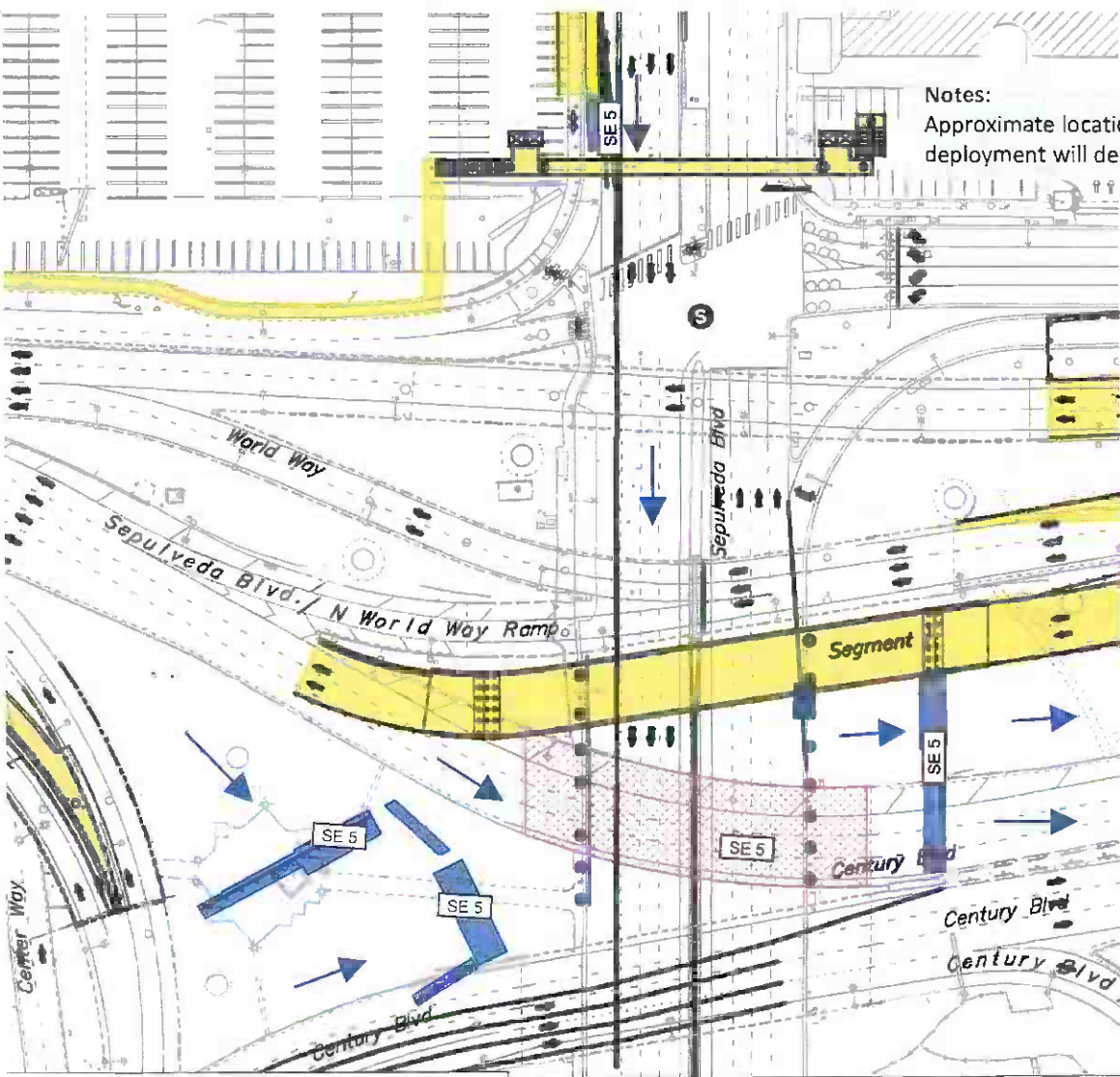
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SE 5 Work Area Perimeter Control
(not shown - smaller work areas as needed)
No SE 5 where curbs/grade breaks provide
sufficient perimeter control

NS 3; WE 1; WM 3,5,8
Bridge Demolition

NS 3, 12, 13; WM 2-5, 8; SE 5,7; TC 2; WE 1
Current Permanent Construction (Bridge)

SE 5, 7, 8, 10; NS 6 Stormdrains (Active Work Areas)
Inlet protection removed during rain events

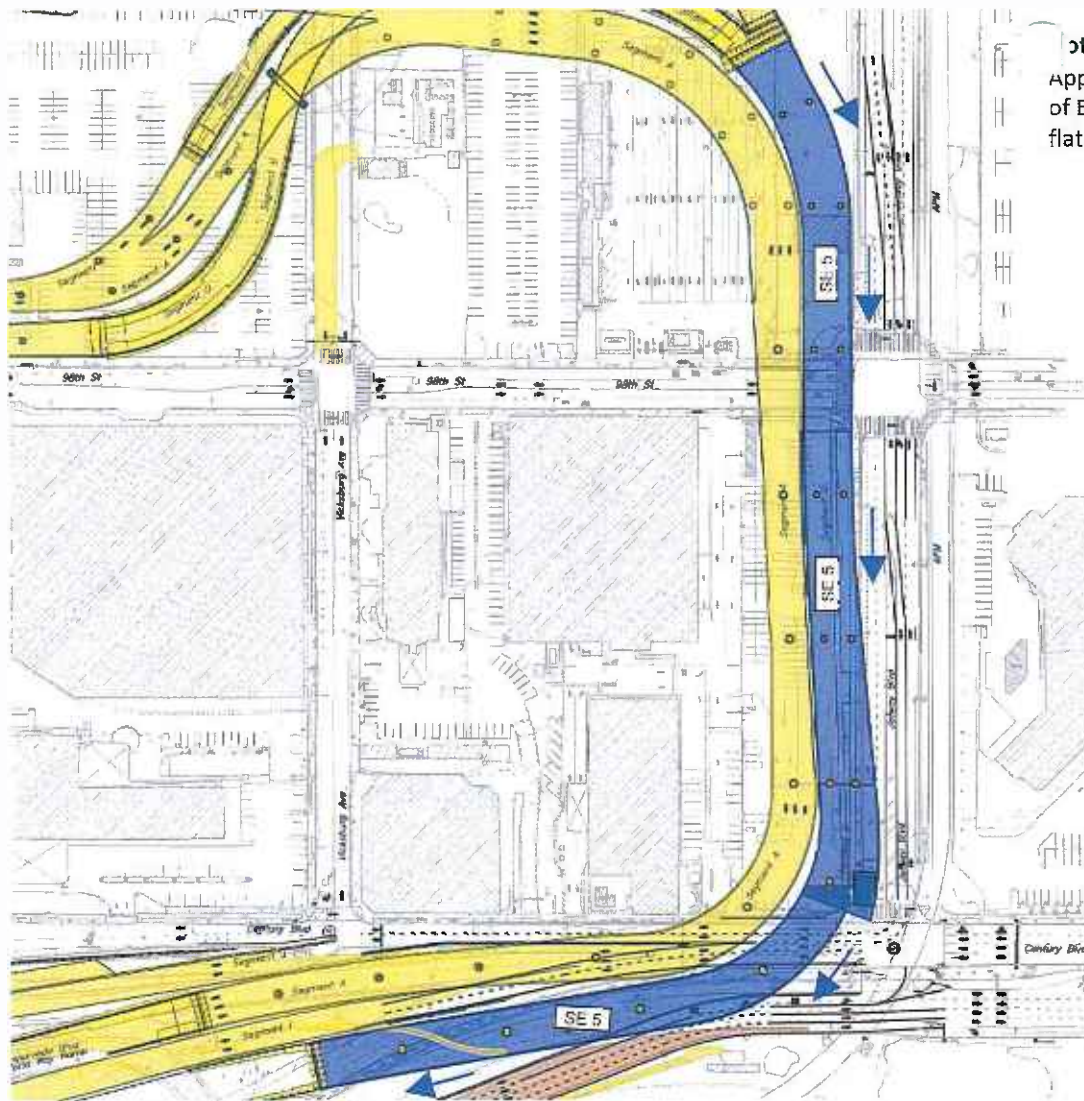
STAGING LEGEND	
	CURRENT PERMANENT CONSTRUCTION (ROAD)
	CURRENT PERMANENT CONSTRUCTION (BRIDGE)
	FINISHED PERMANENT CONSTRUCTION
	CURRENT TEMPORARY CONSTRUCTION
	FINISHED TEMPORARY CONSTRUCTION
	BRIDGE DEMOLITION
	BARRICADE WITH SIGN / WITHOUT SIGN
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	TEMPORARY BARRIER
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Approximate locations of at-surface work areas and BMPs are shown. Locations and schedule of BMP deployment will depend on site conditions encountered. Work area vicinity is mostly flat / impervious.

Upstream and Downstream Non-Visible Pollutant sampling locations depend on actual site conditions and the requirements discussed in SWPPP Section 7.7.1

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- (not shown - smaller work areas as needed)
- No SE 5 where curbs/grade breaks provide sufficient perimeter control

NS 3, 12, 13; WM 2-5, 8; SE 5, 7; TC 2; WE 1
Current Permanent Construction (Bridge)

SE 5, 7, 8, 10; NS 6 Stormdrains (Active Work Areas)
Inlet protection removed during rain events

STAGING LEGEND

	CURRENT PERMANENT CONSTRUCTION (ROAD)
	CURRENT PERMANENT CONSTRUCTION (BRIDGE)
	FINISHED PERMANENT CONSTRUCTION
	CURRENT TEMPORARY CONSTRUCTION
	FINISHED TEMPORARY CONSTRUCTION
	BRIDGE DEMOLITION
	BARRICADE WITH SIGN / WITHOUT SIGN
	CHANNELIZER
	TEMPORARY BARRIER
	MODIFIED SIGNAL / EXISTING SIGNAL
	OPEN SIDEWALK / CLOSED SIDEWALK

BMP Legend (not all may be implemented)

EC 1: Scheduling
EC 2: Preservation of Existing Vegetation
EC 5: Soil Binders
EC 7: Geotextiles and Mats
EC 9: Earth Dike / Drainage Swale
EC 10: Velocity Dissipation Device
NS 1: Water Conservation Practices
NS 2: Dewatering Operations
NS 3: Paving and Grinding Operations

NS 6: Illicit Connection / Discharge
NS 8: Vehicle/Equipment Cleaning
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NS 12: Concrete Curing
NS 13: Concrete Finishing
NS 16: Temporary Batch Plants
SE 1: Silt Fence
SE 2: Sediment Basin
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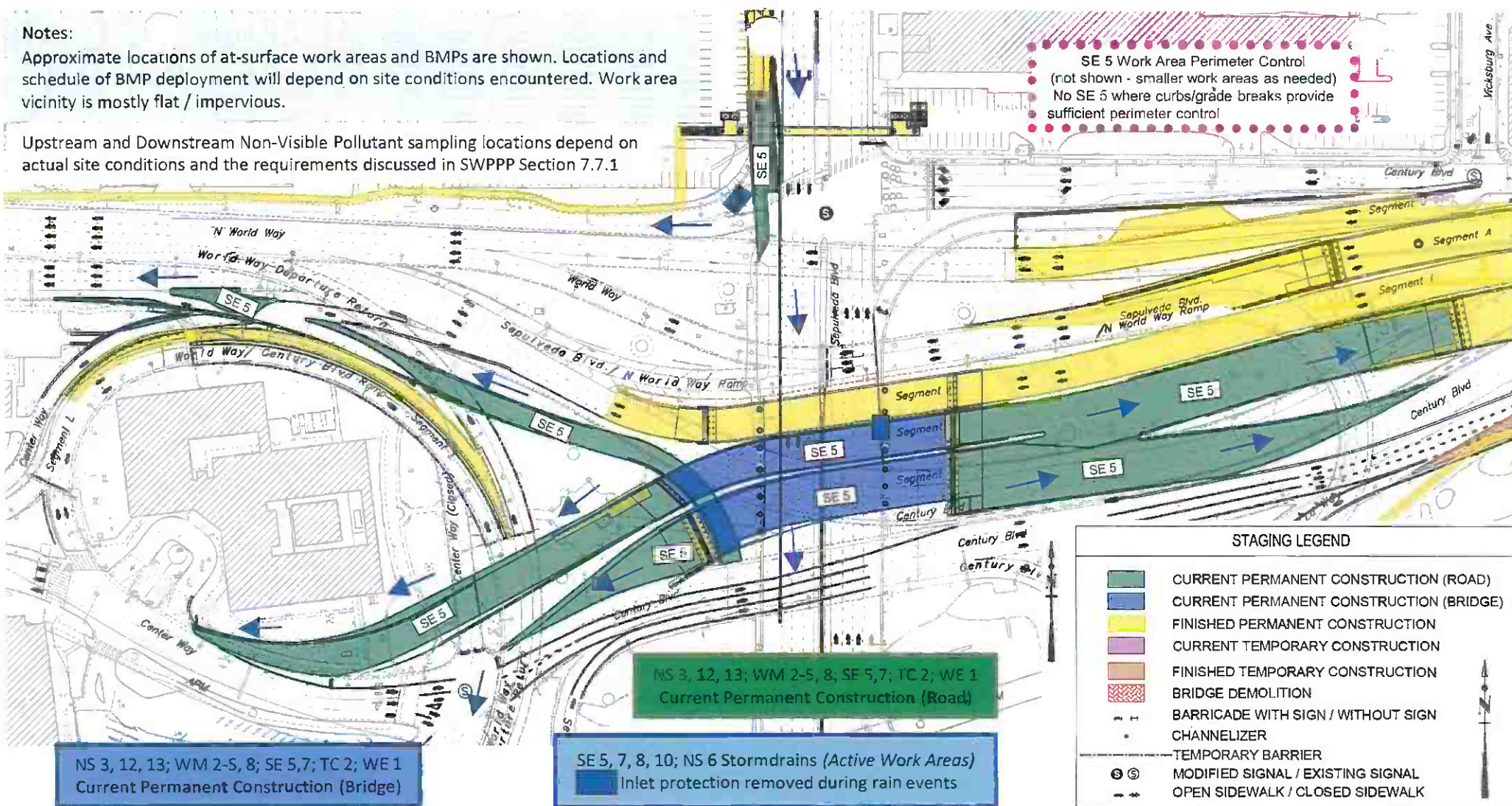
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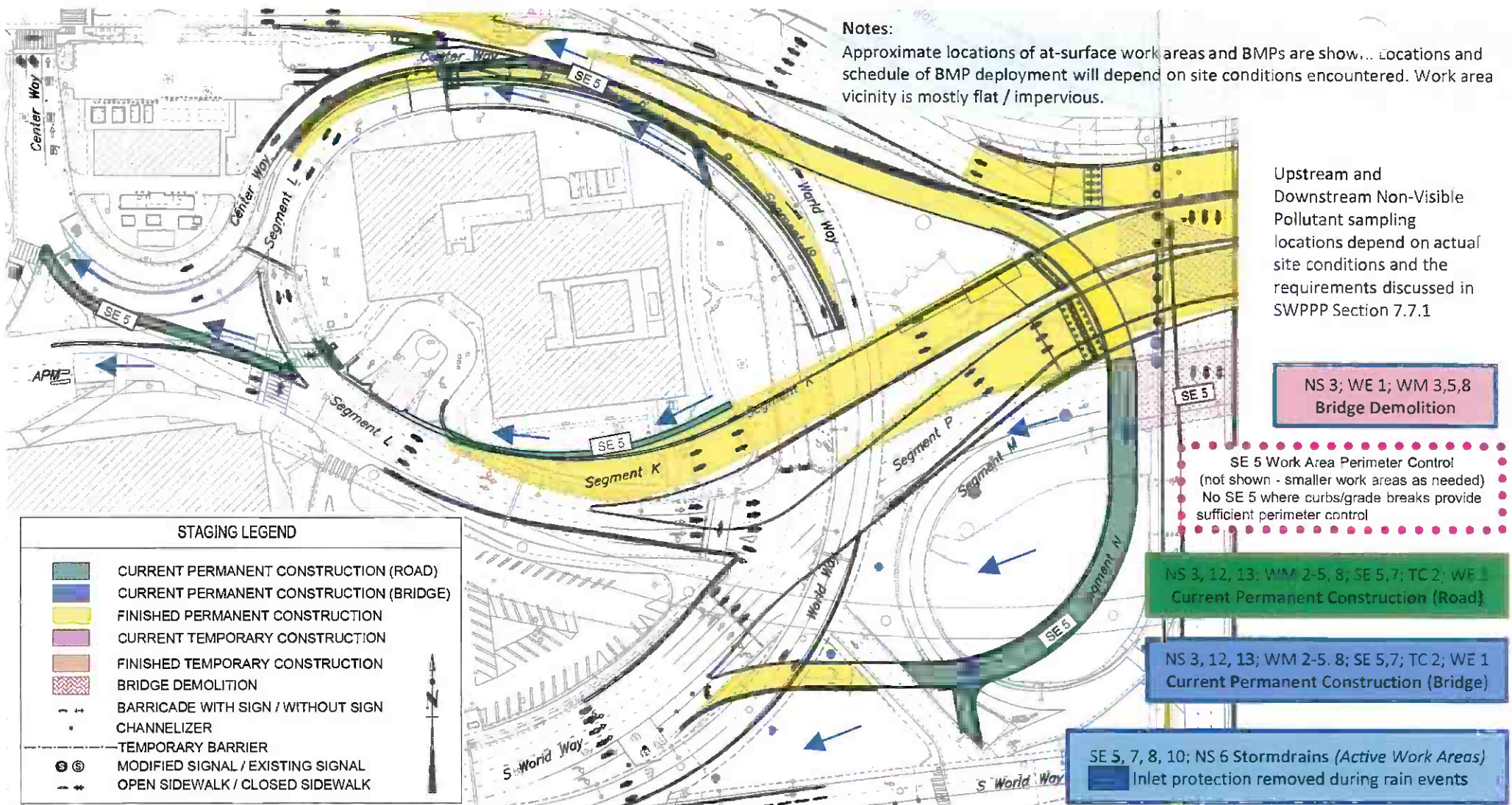
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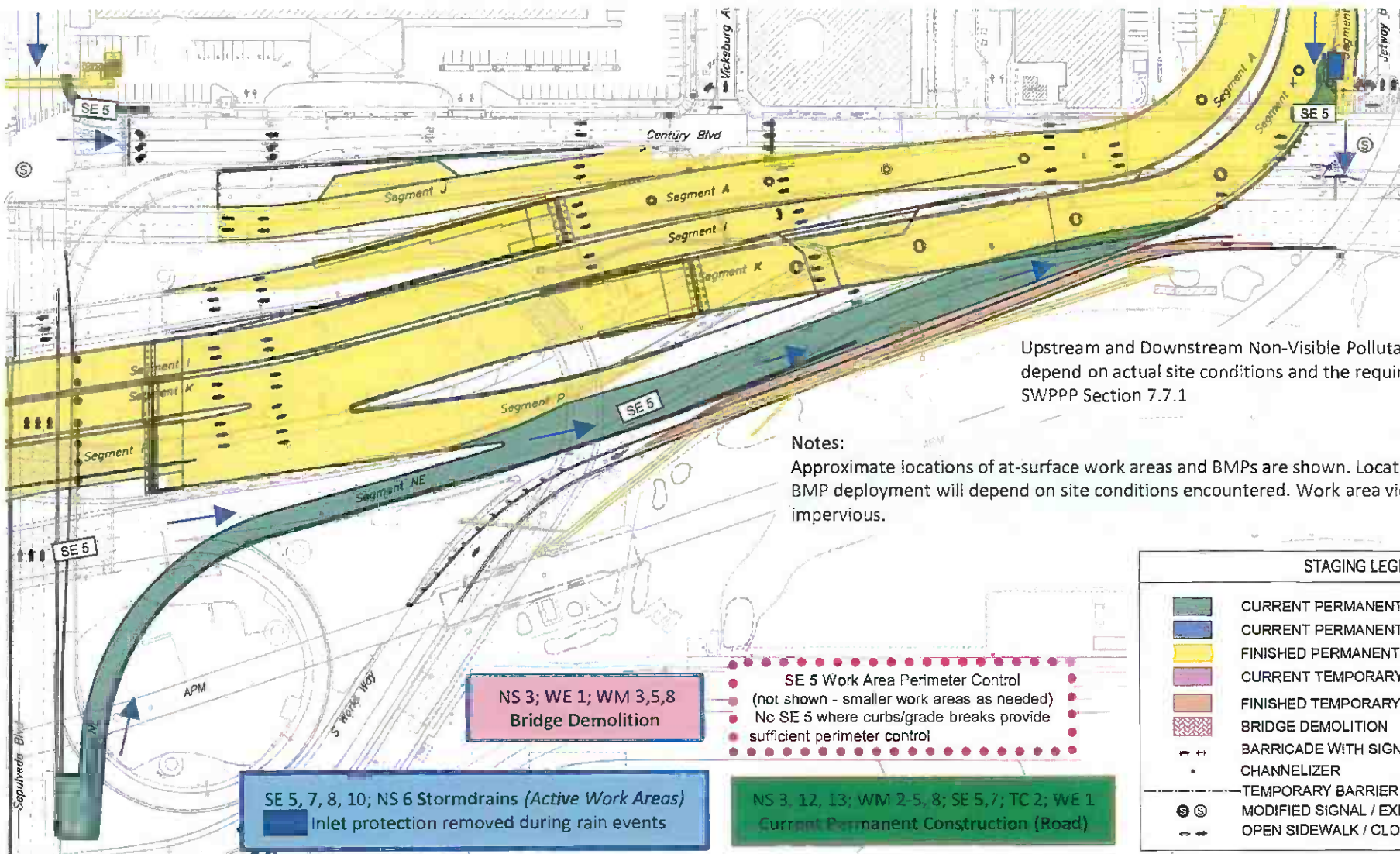
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NS 3; WE 1; WM 3,5,8
Bridge Demolition

SE 5, 7, 8, 10; NS 6 Stormdrains (Active Work Areas)
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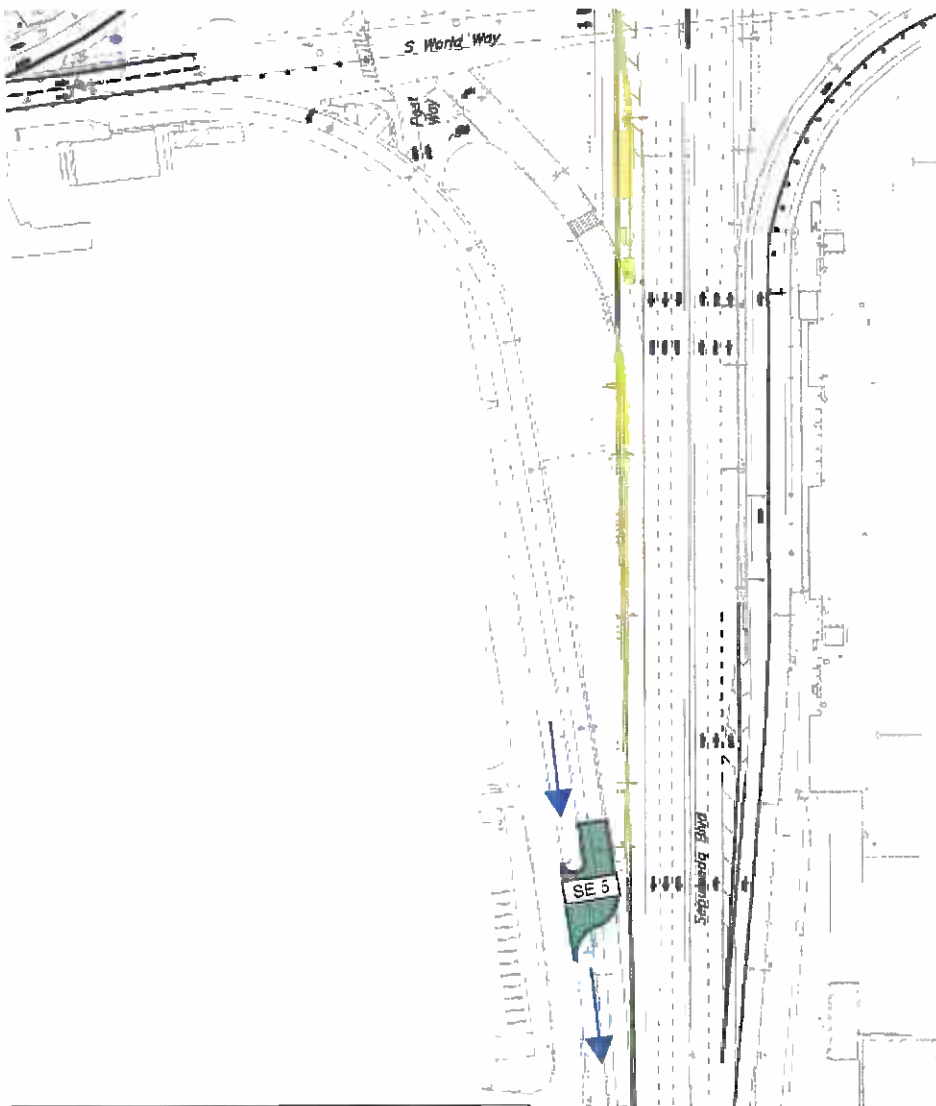
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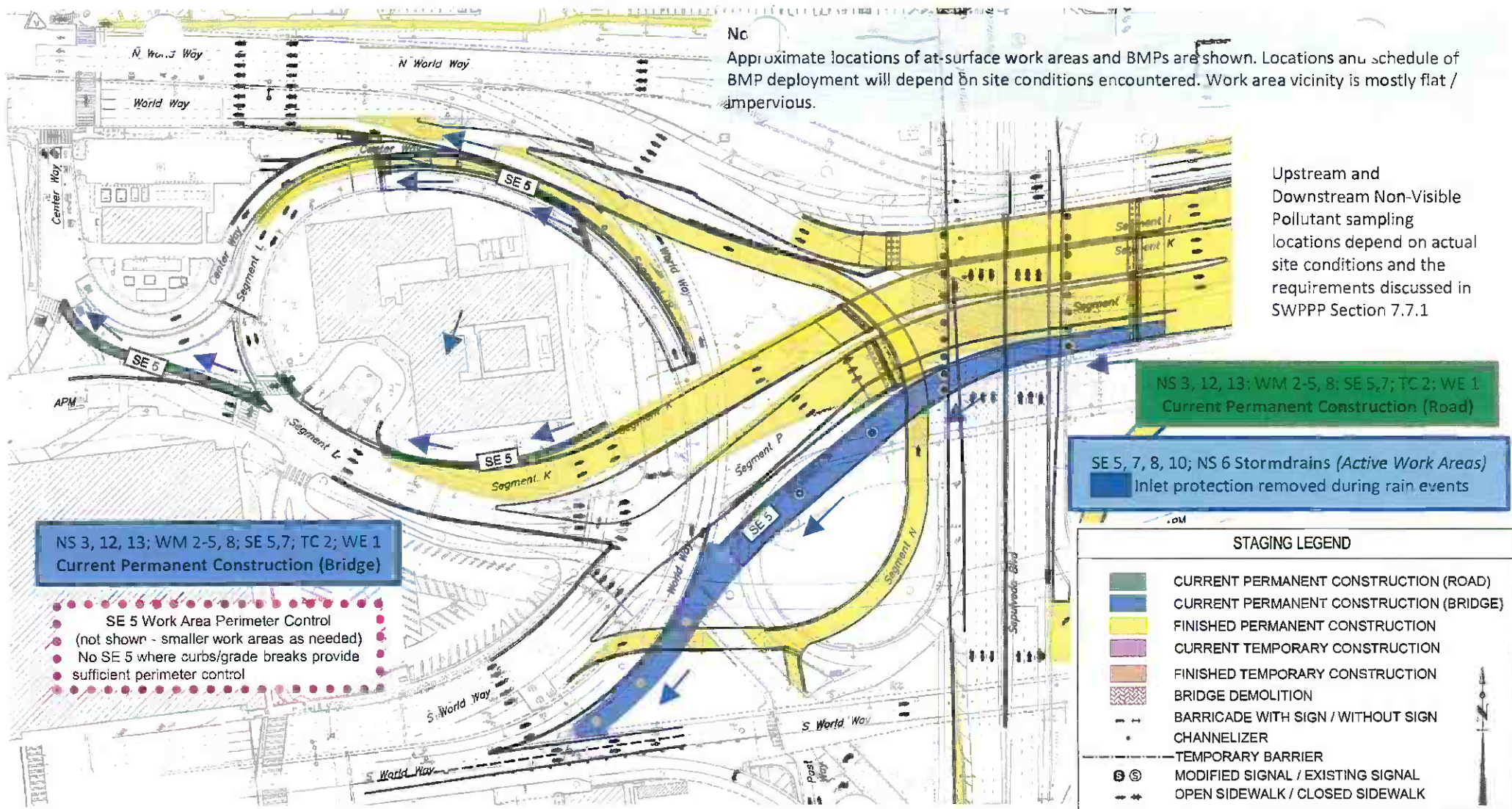
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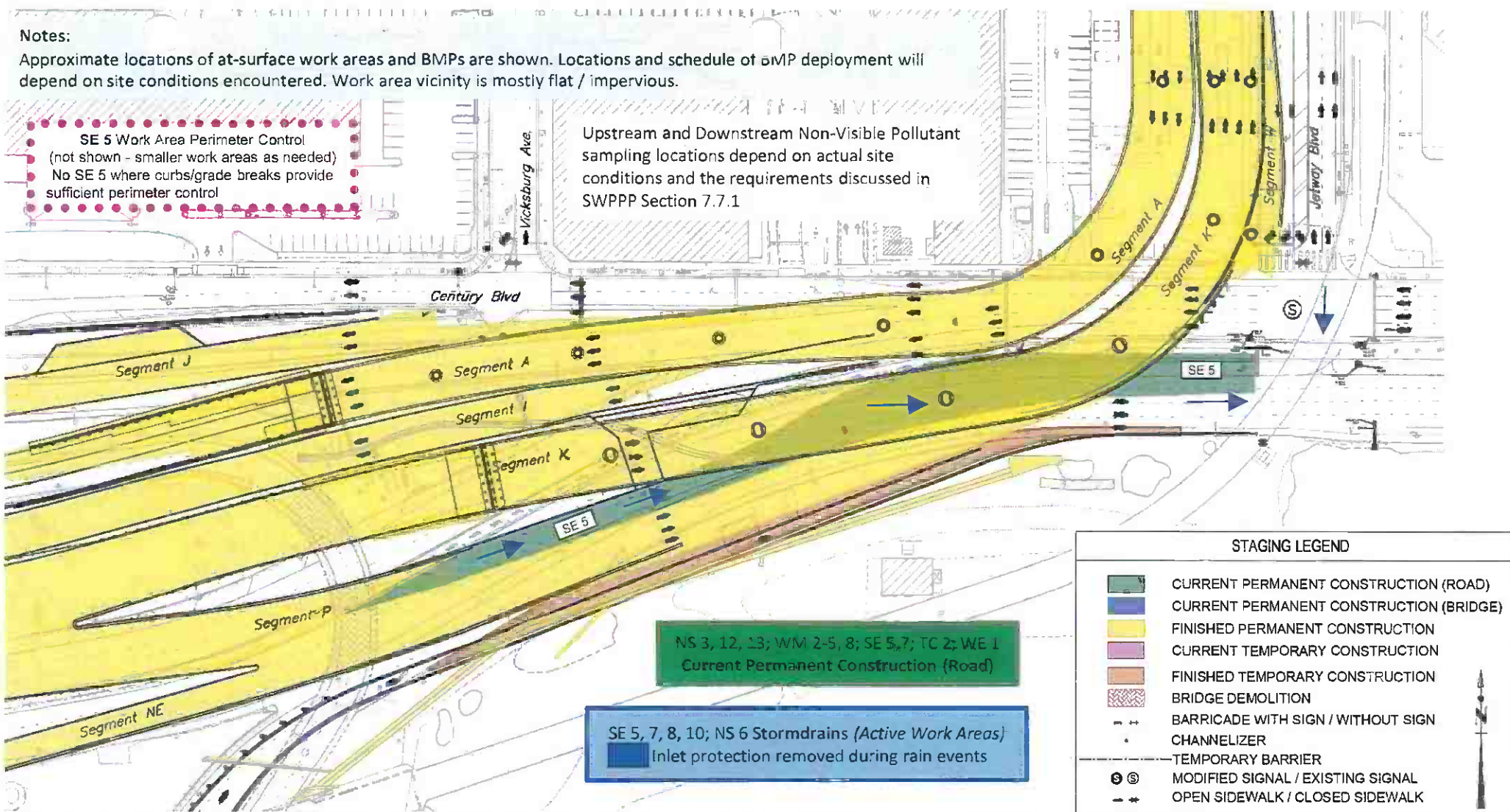
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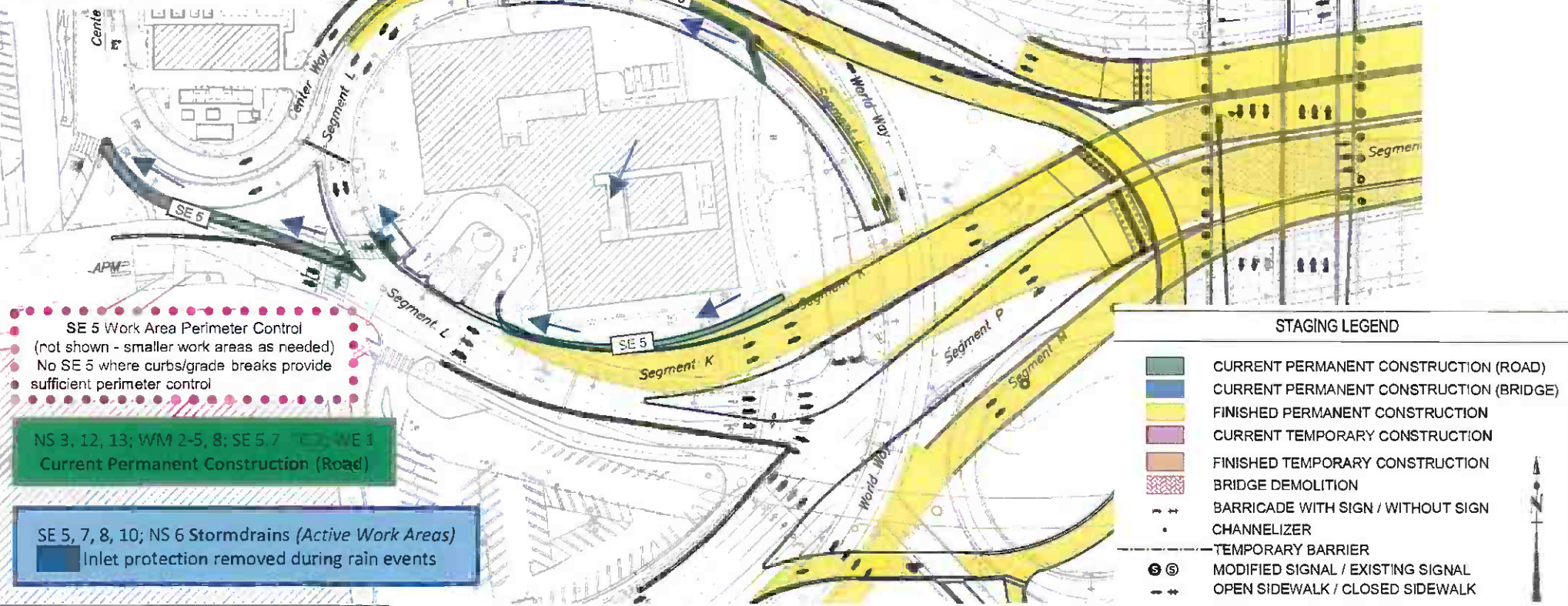
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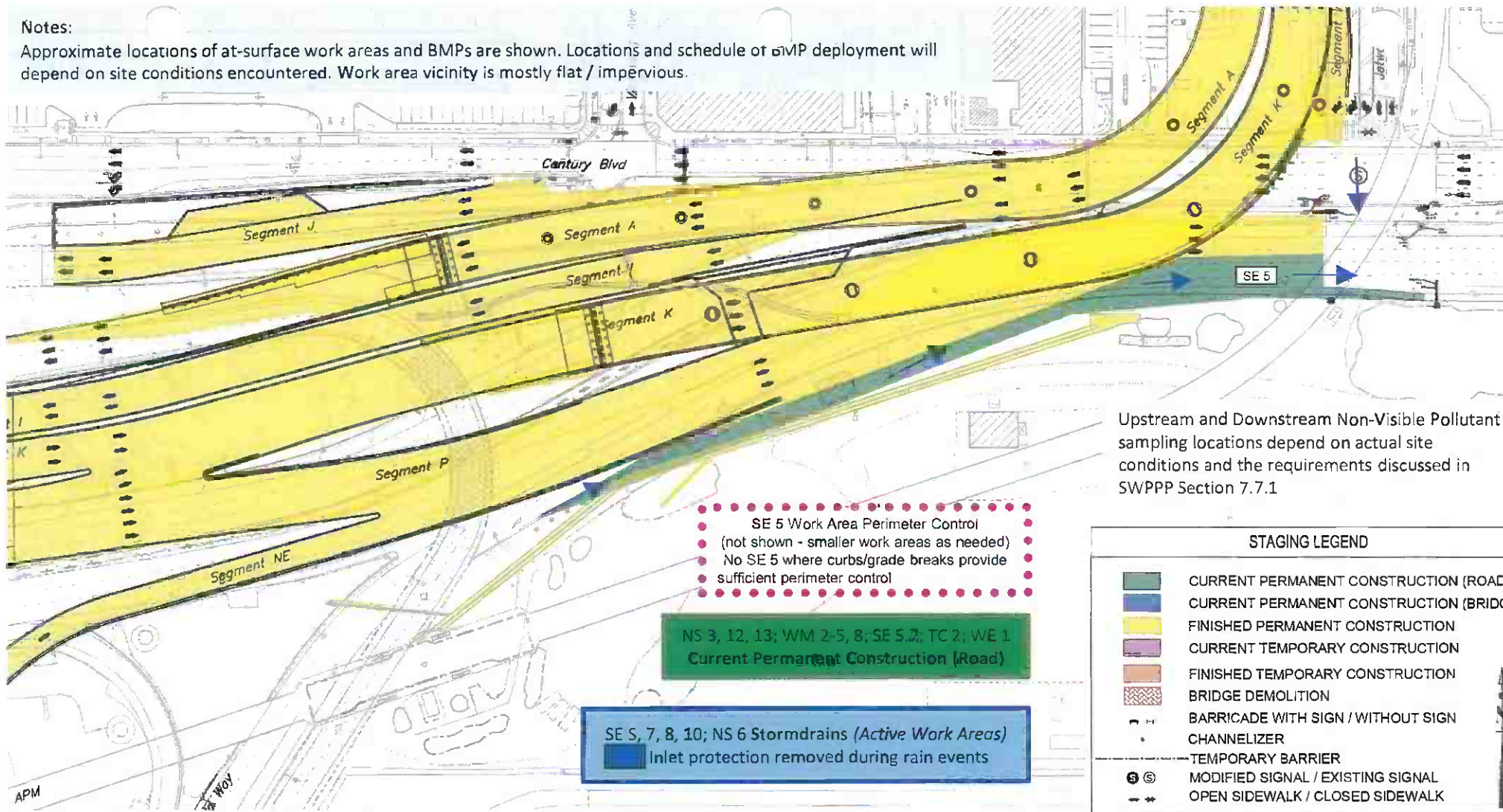
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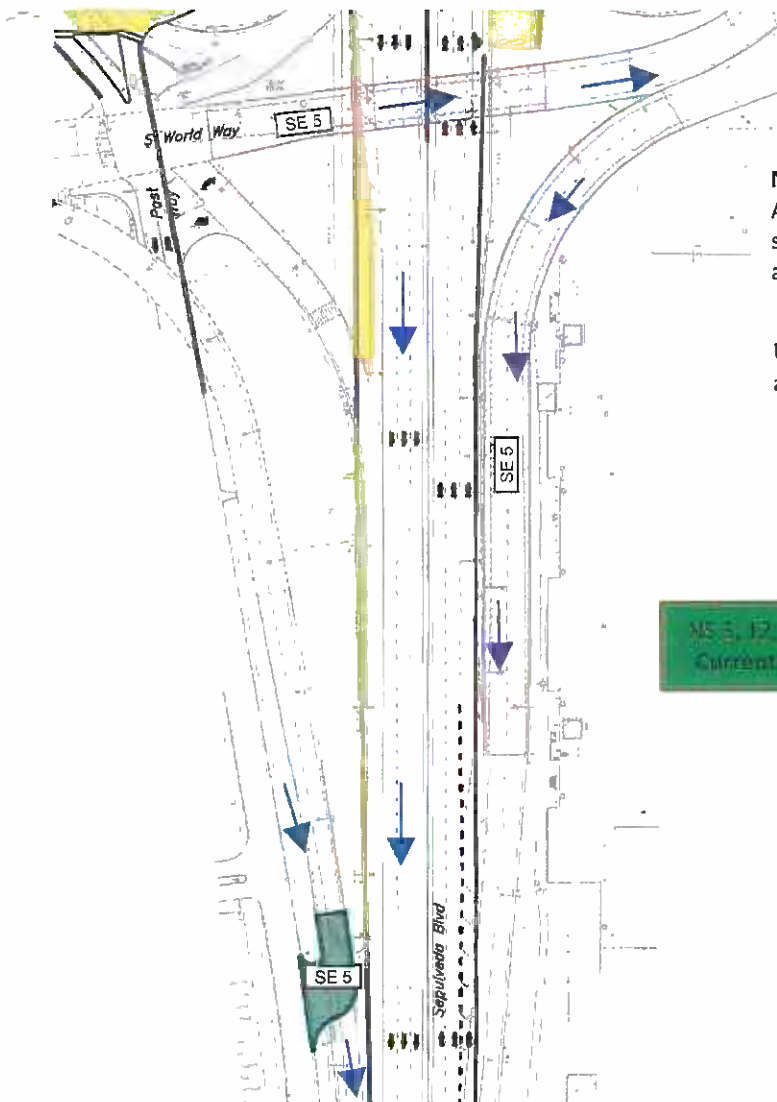
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(not shown - smaller work areas as needed)
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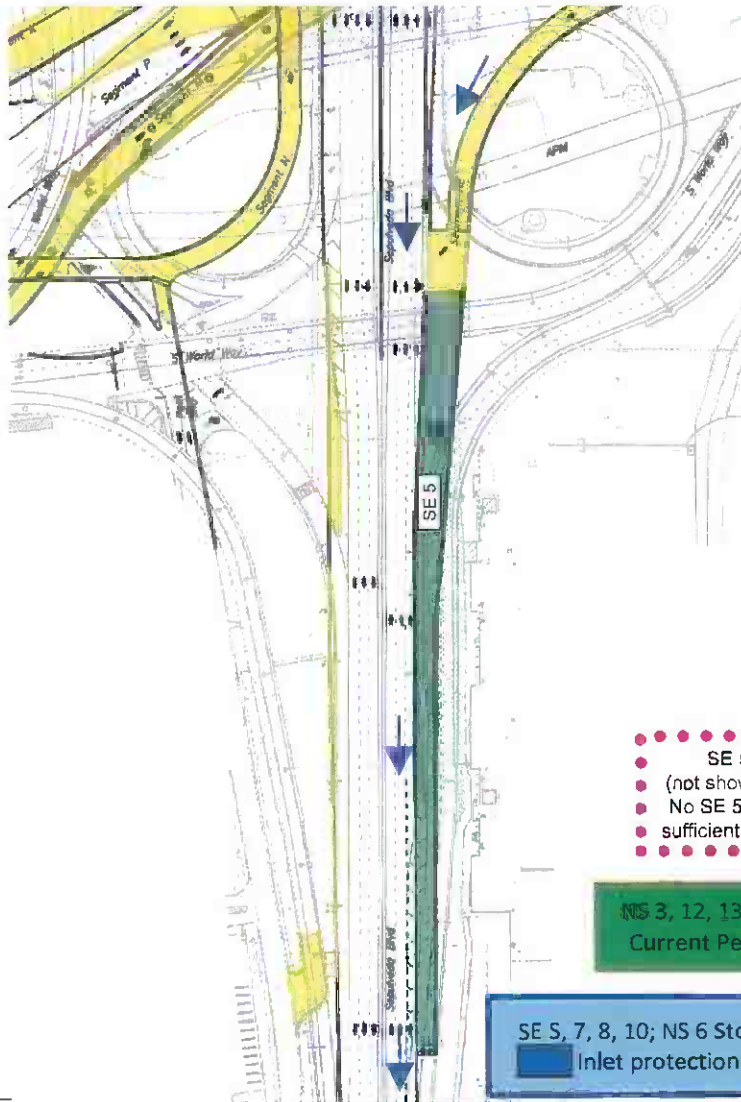
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Appendix B Permit Registration Documents

Permit Registration Document included in this Appendix:

Permit Registration Document (in addition to a copy of the SWPPP)
Notice of Intent
Risk Level Determination
Certification
Post-Construction Requirements, if applicable
Post-Construction Water Balance Calculator, if applicable
Copy of Annual Fee Receipt
Active Treatment System Design Documents, if applicable
Passive Treatment Design Documents, if applicable
General Vicinity Map, see Appendix A

July 26, 2024

City of Los Angeles
Los Angeles World Airports
Administration West
7301 World Way West, 8th Floor
Los Angeles, CA 90045

Subject: LAWA Airfield and Terminal Modernization Program (ATMP)
Roadway Improvements
Sediment and Receiving Water Risk Determination

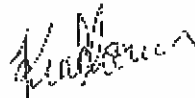
Dear Sir/Madam,

Kroner Environmental Services, Inc. (KES) has performed this Sediment Risk and Receiving Water Risk determination for the LAWA Airfield and Terminal Modernization Program (ATMP) – Roadway Improvements to address current project conditions. The risk determination calculations have been performed using the methodology provided in Attachment D.1 of National Pollutant Discharge Elimination System Construction General Permit CAS000002, State Water Resources Control Board Order 2022-0057-DWQ. The calculations provide the basis for establishing a Combined Project Risk Level designation, site monitoring requirements and effluent standards.

This evaluation assumes that an earthmoving start date of March 26, 2024 corresponding to the planned design schedule for early work package in the ATMP Roadway Improvements Proof of Concept Report. The estimated end date is May 31, 2028 corresponding to the project completion. Upon consideration of each of the two watersheds and associated work areas, our evaluation indicates that the project is a Combined Risk Level 1 as described in the attached Combined Risk Level Determination.

If you have any questions regarding the risk determination, please contact us at (310) 474-1500.

Sincerely,
KRONER ENVIRONMENTAL SERVICES, INC.



Kurt A. Kroner, QSD
Vice President

Enclosed:
Combined Risk Level Determination
Exhibits A thru E

**LOS ANGELES WORLD AIRPORTS
AIRFIELD AND TERMINAL MODERNIZATION PROGRAM
ROADWAY IMPROVEMENTS
COMBINED RISK LEVEL DETERMINATION – JULY 2024**

The Los Angeles World Airports (LAWA) Airfield and Terminal Modernization Program (ATMP) consists of airfield improvements that would enhance operational management and safety within the north airfield, new terminal facilities to upgrade passenger processing capabilities and enhance the passenger experience, and an improved system of roadways to better access the Central Terminal Area (CTA) and new facilities while reducing congestion. The Project covered under this risk assessment to be only the Roadway Improvements at Los Angeles International Airport (LAX) of the ATMP. The other elements of the ATMP will have their own risk assessments.

The Project focuses on roadway improvements to help reduce airport-related congestion on the local roadway system resulting in back-ups on public streets by redirecting airport traffic from local streets to new dedicated access roadways. A new system of roadways and bridges will be constructed to consolidate traffic away from Sepulveda Boulevard and Century Boulevard, enable construction of Concourse 0, and provide access to the new Terminal 9.

The Project areas are within Santa Monica Bay and Dominguez Channel watersheds. Details of site perimeters and stormwater pollution controls are provided in Appendix A of the Stormwater Pollution Prevention Plan and disturbed project areas will be detailed in the Project Registration Documents. This evaluation finds that the Project is Risk Level 1.

This evaluation is prepared by Kroner Environmental Services (KES) as part of the Permit Registration Documentation process for enrollment under National Pollutant Discharge Elimination System Construction General Permit CAS000002, State Water Resources Control Board Order 2022-0057-DWQ.

Sediment Risk

The Sediment Risk factor is the product of rainfall erosivity (R), soil erodibility (K), and length-slope (LS), i.e. Sediment Risk Factor = (R)(K)(LS).

Rainfall Erosivity. The R factor is an estimate of erosivity potential which depends on the duration of earth disturbance work and whether that work occurs during the wet weather season. March 26, 2024 and May 31, 2028 were used for the start of earth disturbance and end date (project completion) in determining the R factor. The U.S. EPA Rainfall Erosivity Factor Calculator found on the U.S. EPA website enables users to enter the start and end dates and locations of the project sites to obtain R factors. For projects with earth disturbance longer than one year, the online calculator requires first obtaining an annual R factor and then a second R factor for the remaining duration of construction that is less than one year.

All the work areas in each of the watersheds are found to have the same annual and partial year R factors. A total project R factor of 149.07 results from multiplying 36.53 per year by 4 years (March 26, 2024 to March 25, 2028) and then adding 2.95 (March 26, 2028 to May 31, 2028), i.e., $36.53 \times 4 + 2.95 = 149.07$ (see Exhibit A).

Erodibility. The K factor is an indicator as to amount of erodibility that is associated with project soil conditions. Soils containing higher concentrations of sand and clay have a lower potential for erodibility. The K factor map provided by the SWRCB website under Construction Stormwater

General Permits – Guidance indicates that all the Project work areas are in a region having coarse-textured soils, such as sandy soils, i.e., $K=0.20$ (see Exhibit B). The K value is low because of high infiltration resulting in low runoff, although these particles are easily detached.

Length-Slope. The LS factor accounts for site topography using pre-construction hillslope-length/gradient factors. The Roadway Improvements area is relatively flat based on street elevations. The slope is estimated to be 1.3 to 1.7% on average over the maximum length of the work area as listed below. The corresponding LS Factor is determined using the “*LS Factors for Construction Sites - Table from Renard et. al., 1997*”. The slope may be recalculated as needed as the elevation data, Project Definition Drawings and Geotechnical Baseline Reports are developed. The LS factor for the ATMP Roadway Improvements Project area is found to be approximately 0.41 (see Exhibit C).

LS Factor

Location	Length (ft)	% Slope	LS Factor
Roadway Improvements	3,200	1.3 – 1.7%	0.41

Results and Discussion. Based on the product of the R, K and LS factors, the watershed erosion estimate for the project is determined to be 12.22 tons/acre (see Exhibit D). The SWRCB designates projects with an erosion estimate of less than 15 tons/acre to be Low Sediment Risk.

The potential for erosivity and sediment production is low because there are high infiltration soils in work areas. The estimated erosion quantity is higher than what would be encountered because most of the work areas have staggered initial and final earth disturbance dates. The earliest disturbance date and project completion/final stabilization dates were used to simplify the evaluation and to account for possible changes in the actual construction schedule.

Receiving Water Risk

Receiving Water Risk is based on whether the project drains to a sediment impaired water body or watershed referred to 2020 – 2022 California Integrated Report (Clean Water Act Section 303(d) – 305(b) Report); has a U.S. EPA Total Maximum Daily Load implementation plan for sediment; or has beneficial uses of COLD, SPAWN and MIGRATORY.

Project discharge will drain to Santa Monica Bay and Dominguez Channel from different sites. Table 2-1 (*Beneficial Uses of Inland Surface Waters*) of the Water Quality Control Plan for Los Angeles Basin lists that Dominguez Channel has no beneficial uses of COLD, SPAWN and MIGRATORY. Since Water Quality Control Plan doesn't include the beneficial uses of Santa Monica Bay, Dockweiler Beach located between LAX and Santa Monica Bay is used for assessment. Table 2-3 (*Beneficial Uses of Coastal Features*) shows that Dockweiler Beach only has a potential beneficial use of SPAWN but without any beneficial uses of COLD and MIGRATORY. Tables and project drainage areas are shown in Exhibit E.

Receiving waters and 2020-2022 California Integrated Report 303(d)-listed impairments are listed below.

Project Drainage Areas	Receiving Waters	303(d) Listed Impairments
<ul style="list-style-type: none"> Argo Drain Subbasin Imperial Drain Subbasin 	Santa Monica Bay	Arsenic, DDT, Mercury, PCBs, Trash

Project Drainage Areas	Receiving Waters	303(d) Listed Impairments
<ul style="list-style-type: none">Dominguez Channel Subbasin	Dominguez Channel	Copper, Indicator Bacteria, Lead, Toxicity, Zinc

There are no discharges from project work areas to a 303(d)-listed water body impaired by sediment. Therefore, Receiving Water Risk is Low.

Combined Risk Type

KES finds that the project would be considered a Combined Risk Level 1 subject to the Risk Level 1 requirements for effluent standards and construction site monitoring as described in NPDES General Permit 2022-0057-DWQ. The results of the Combined Risk Level determination are worksheets attached in Exhibit E.

Exhibit A
US EPA R Factor Worksheet

National Pollutant Discharge Elimination System (NPDES)

Rainfall Erosivity Factor Calculator for Small Construction Sites

EPA's stormwater regulations allow NPDES permitting authorities to waive NPDES permitting requirements for stormwater discharges from small construction sites if:

- the construction site disturbs less than five acres, and
- the rainfall erosivity factor ("R" in the revised universal soil loss equation, or RUSLE) value is less than five during the period of construction activity.

If your small construction project is located in an area where EPA is the permitting authority and your R factor is less than five, you qualify for a low erosivity waiver (LEW) from NPDES stormwater permitting. If your small construction project does not qualify for a waiver, then NPDES stormwater permit coverage is required. Follow the steps below to calculate your R-Factor.

LEW certifications are submitted through the NPDES eReporting Tool or "CGP-Net". Several states that are authorized to implement the NPDES permitting program also accept LEWs. Check with your state NPDES permitting authority for more information.

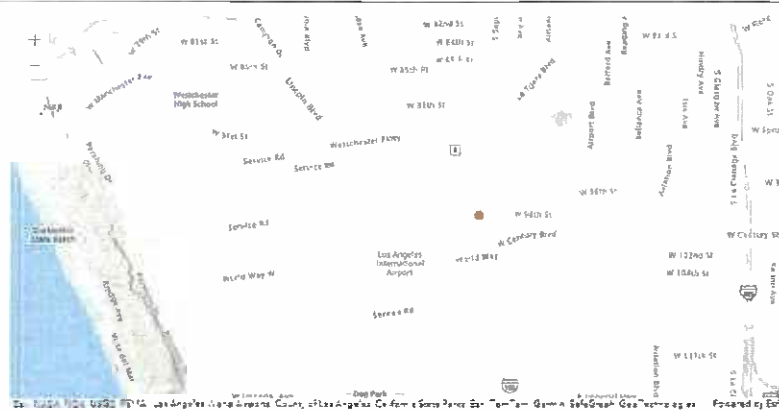
- Submit your LEW through EPA's eReporting Tool
- List of states, Indian country, and territories where EPA is the permitting authority (pdf)
- Construction Rainfall Erosivity Waiver Fact Sheet
- Small Construction Waivers and Instructions (pdf)

The R-factor calculation can also be integrated directly into custom applications using the R-Factor web service.

For questions or comments, email EPA's CGP staff at cgp@epa.gov.

- 1 Select the estimated start and end dates of construction by clicking the boxes and using the dropdown calendar.

The period of construction activity begins at initial earth disturbance and ends with final stabilization.



3 Click the "Calculate R Factor" button below to calculate an R Factor for your small construction project.

Calculate R Factor

Facility Information

Start Date: 03/26/2024

Latitude: 33.9472

End Date: 03/25/2025

Longitude: -118.3979

Calculation Results

Rainfall erosivity factor (R Factor) = **36.53**

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

You do NOT qualify for a waiver from NPDES permitting requirements and must seek Construction General Permit (CGP) coverage. If you are located in an area where EPA is the permitting authority (pdf), you must submit a Notice of Intent (NOI) through the NPDES eReporting Tool (NeT). Otherwise, you must seek coverage under your state's CGP.

Facility Information

Start Date: 03/26/2028

Latitude: 33.9472

End Date: 05/31/2028

Longitude: -118.3979

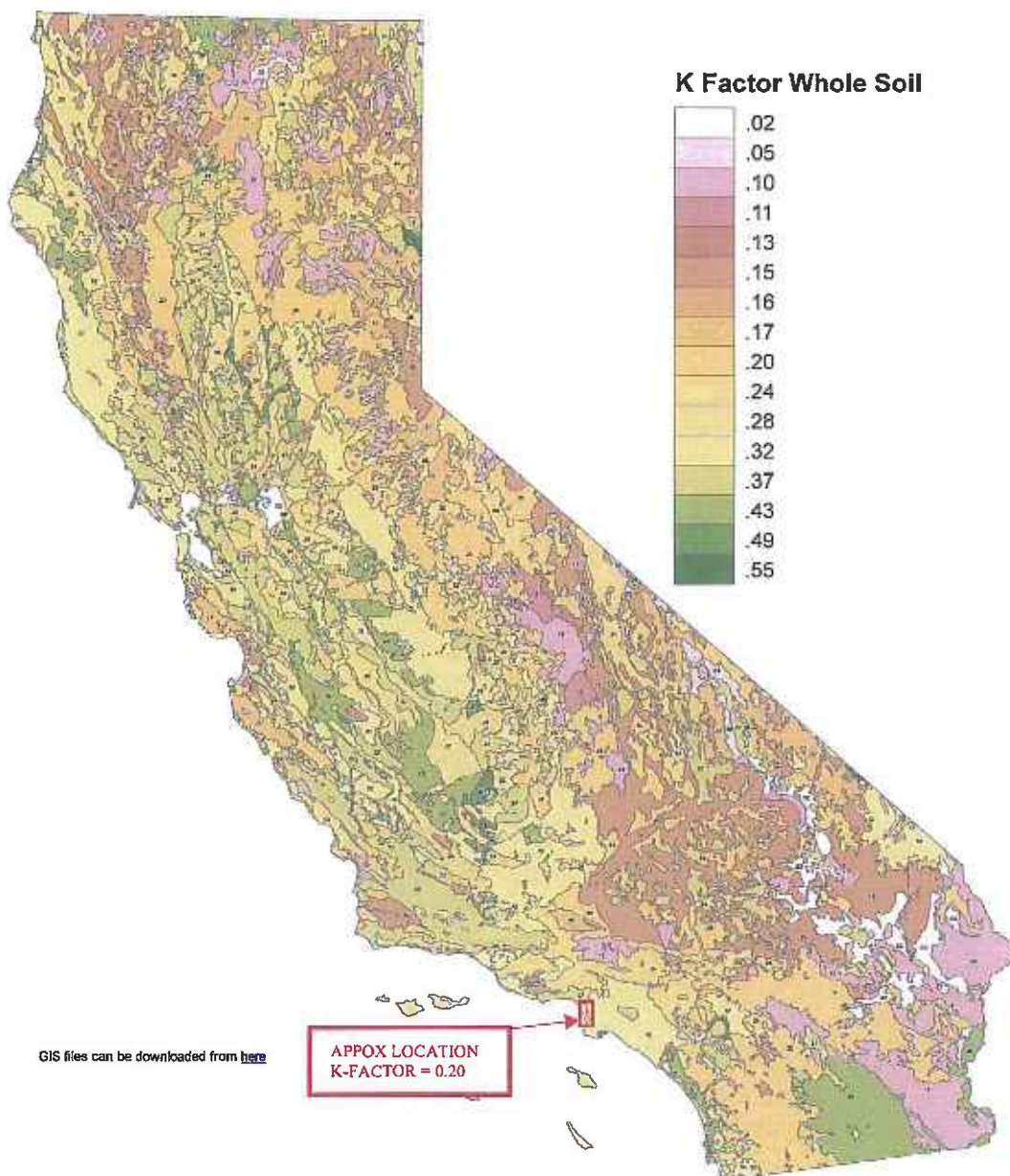
Calculation Results

Rainfall erosivity factor (R Factor) = **2.95**

$$\text{R Factor Calculation: } (36.53 \times 4) + 2.95 = 149.07$$

Exhibit B
K Factor Map

RUSLE K Values



Data Source: Natural Resources Conservation Service,
U.S. Dept. of Agriculture and State Water Resources Control Board

Exhibit C
LS Factor Table

Length-slope (LS) Factor for Construction Sites

To determine a construction site's specific LS Factor locate the intercept of the site's Sheet Flow Length (ft) and Average Watershed Slope (percent). Table from Renard et. al., 1997.

Sheet Flow Length (ft)	Average Watershed Slope (percent)									
	0.2	0.5	1.0	2.0	3.0	4.0	5.0	6.0	8.0	10.0
< 3	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.35
6	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.37
9	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.38
12	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.39
15	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.40
25	0.05	0.07	0.10	0.16	0.21	0.26	0.31	0.36	0.45	0.57
50	0.05	0.08	0.13	0.21	0.30	0.38	0.46	0.54	0.70	0.91
75	0.05	0.08	0.14	0.25	0.36	0.47	0.58	0.69	0.91	1.20
100	0.05	0.09	0.15	0.28	0.41	0.55	0.68	0.82	1.10	1.46
150	0.05	0.09	0.17	0.33	0.50	0.68	0.86	1.05	1.43	1.88
200	0.06	0.10	0.18	0.37	0.57	0.79	1.02	1.25	1.72	2.34
250	0.06	0.10	0.19	0.40	0.64	0.89	1.16	1.43	1.99	2.72
300	0.06	0.10	0.20	0.43	0.69	0.98	1.28	1.60	2.24	3.09
400	0.06	0.11	0.22	0.48	0.80	1.14	1.51	1.90	2.70	3.75
600	0.06	0.12	0.24	0.56	0.96	1.42	1.91	2.43	3.52	4.95
800	0.06	0.12	0.26	0.63	1.10	1.65	2.25	2.89	4.24	6.03
1000	0.06	0.13	0.27	0.69	1.23	1.86	2.55	3.30	4.91	7.02

Exhibit D
Watershed Erosion Estimate

	A	B	C
1	Sediment Risk Factor Worksheet		Entry
2	A) R Factor		
3	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.		
4	http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm		
5	R Factor Value		149.07
6	B) K Factor (weighted average, by area, for all site soils)		
7	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.		
8	Site-specific K factor guidance		
9	K Factor Value		0.20
10	C) LS Factor (weighted average, by area, for all slopes)		
11	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.		
12	LS Table		
13	LS Factor Value		0.41
14			
15	Watershed Erosion Estimate (=R_xK_xLS) in tons/acre		12.22374
16	Site Sediment Risk Factor		Low
17	Low Sediment Risk: < 15 tons/acre		
18	Medium Sediment Risk: ≥15 and <75 tons/acre		
19	High Sediment Risk: ≥ 75 tons/acre		
20			

Exhibit E

Receiving Water Risk and Combined Risk Level Determination

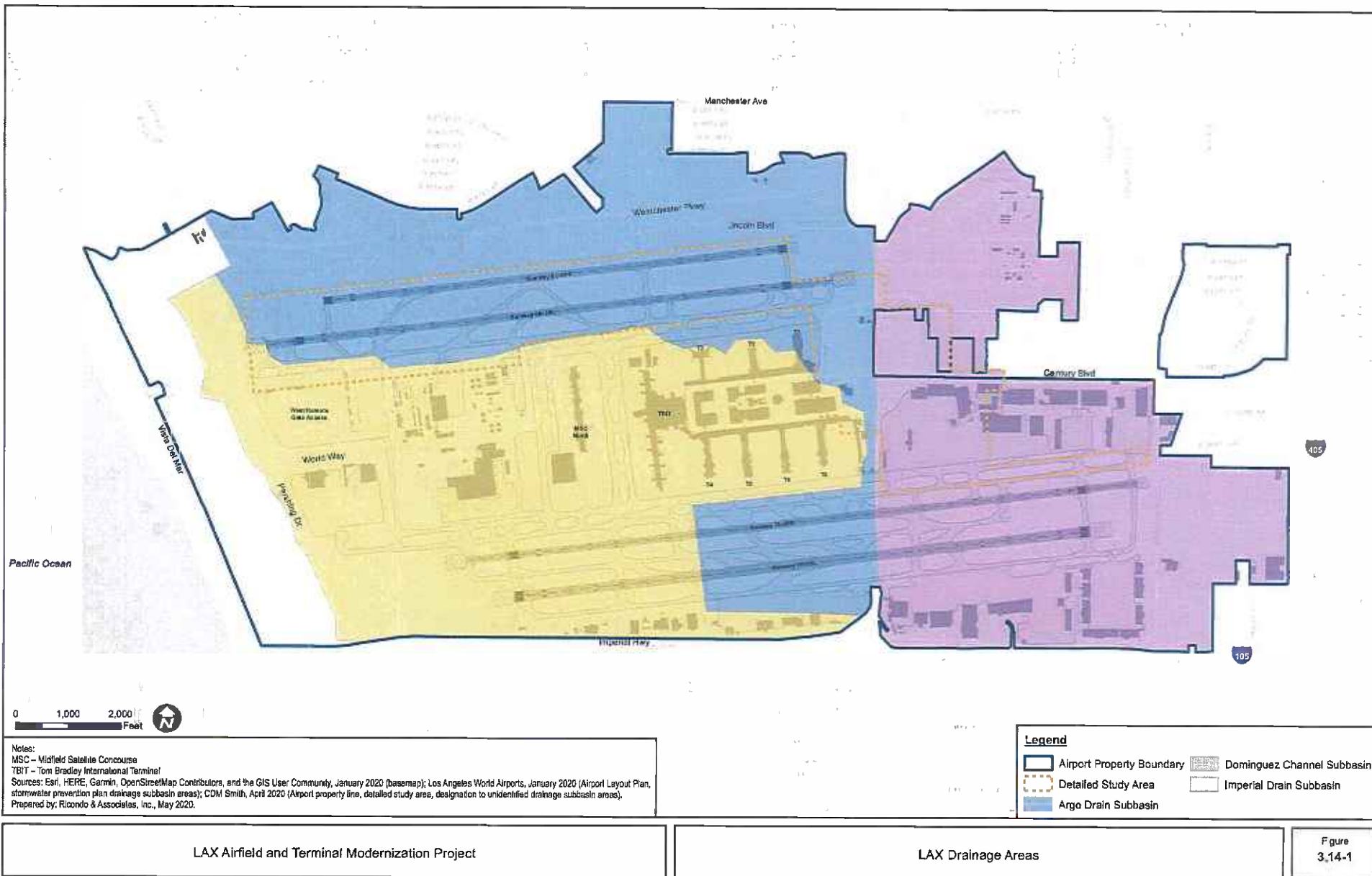


Table 2-3 Beneficial Uses of Coastal Features.

COASTAL FEATURE ^a	WBD No.	MUN	IND	PROC	NAV	POW	COMM	WARM	COLD	EST	MAR	WILD	BIOL	RARE	MIGR	SPWN	SHELL	WETb
LOS ANGELES COUNTY COASTAL FEATURE (Cont.)																		
Whites Point County Beach	180701040300				E		E									P	E	
Cabrillo Beach	180701040403				E		E									Eas	E	
Los Angeles - Long Beach Harbor	180701060303																	
Outer Harbor	180701060703				E		E										P	
Marinas	180701060703				E		E										P	
Public Beach Areas	180701060703				E		E									P	E	
All Other Inner Areas	180701060703				E		E										P	
Dominguez Channel Estuary ^c	180701060102				P		E			E				Ea	Ef	Ef	P	
Los Angeles River Estuary ^c	180701050102				E		E			E				Ea	Ef	Ef	P	
Alamitos Bay	180701060702				E		E			E				Ea	Ef	Ef	P	
Los Cerritos Wetlands ^d	180701060702				E		E			E				Ea	Ef	Ef	P	
Los Cerritos Channel Estuary ^e	180701060702				E		E			E				Ea	Ef	Ef	P	
San Gabriel Estuary ^f	180701060606				E		E			E				Ea	Ef	Ef	P	
Long Beach Marina	180701060702				E		E			E				Ea	Ef	Ef	P	
Public Beach Areas	180701060702				E		E			E				Ea	Ef	Ef	P	
All other Areas	180701060702				E		E			E				Ea	Ef	Ef	P	
Marine Stadium	180701060702				E		E			E				Ea	Ef	Ef	P	
Long Beach	180701060703				E		E			E				Ea	Ef	Ef	P	
ISLANDS NEARSHORE ZONES^g																		
Anacapa Island	180600140200				E		E					Ea	Eat	E		P	E	
San Nicolas Island	180701070001				E		E					Ea	Eat	E		P	E	
Seeg Rock Nearshore Zone ^h	180701070003				E		E					Ea	Eat	E		P	E	
Santa Barbara Island	180701070003				E		E					Ea	Eat	E		P	E	
Santa Catalina Island	180701070001				E		E					Ea	Eat	E		P	E	
Santa Catalina Island	180701070002				E		E					Ea	Eat	E		P	E	
San Clemente Island	180701070001				E		E					Ea	Eat	E		P	E	

Footnotes are consistent for all beneficial use tables.

E: Existing beneficial use.

P: Potential beneficial use.

I: Intermittent beneficial use.

E, P, and I: shall be protected as required

^a: Nearshore Zone is defined as the zone bounded by the shoreline and a line 1000 feet from the shoreline or the 30-foot depth contours, whichever is further from the shoreline.

a: Waterbodies are listed multiple times if they cross hydrologic area or subarea boundaries. Beneficial use designations apply to all tributaries to the indicated waterbody, if not listed separately.

b: Waterbodies designated as WET may have wetlands habitat associated with only a portion of the waterbody. Any regulatory action would require a detailed analysis of the area.

c: Coastal waterbodies which are also listed in Inland Surface Waters Table (2-1) or in Wetlands Table (2-4).

e: One or more rare species utilizes all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.

f: Aquatic organisms utilize all bays, estuaries, lagoons, and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas which are heavily influenced by freshwater inputs.

o: Marine habitats of the Channel Islands and Mugu Lagoon serve as pinniped haul-out areas for one or more species (i.e., sea lions).

w: These areas are engineered channels. All references to Tidal Prisms in Regional Board documents are functionally equivalent to estuaries.

as: Most frequently used grunion spawning beaches. Other beaches may be used as well.

at: Areas of Special Biological Significance or ecological reserves.

Table 2-3 Beneficial Uses of Coastal Features.

COASTAL FEATURE ^a	WBD No.	MUN	IND ^b	PROC	NAV ^c	POW ^d	COMM ^e	WARM	COLD	EST	MAR ^f	WILD ^g	BIOL	RARE	MIGR	SPAWN ^h	SHELL	WET ⁱ
LOS ANGELES COUNTY COASTAL FEATURE (Cont.)																		
Puerco Beach	180701040204				E		E				E	E				P	E	
Amarillo Beach	180701040204				E		E				E	E				P	E	
Malibu Beach	180701040204				E		E				E	E			E	Eas	Eas	
Malibu Lagoon ^j	180701040204				E		E			E	E	E		Ee	Ef	Ef	E	E
Carbon Beach	180701040403				E		E				E	E				P	E	
La Brea Beach	180701040403				E		E				E	E				P	E	
Las Flores Beach	180701040403				E		E				E	E				P	E	
Las Tunas Beach	180701040403				E		E				E	E				P	E	
Topanga Beach	180701040403				E		E				E	E				P	E	
Topanga Lagoon ^j	180701040403				E		E			E	E	E		Ee	Ef	Ef	E	E
Will Rogers State Beach	180701040403				E		E				E	E				P	E	
Santa Monica Beach	180701040403				E		E				E	E				Eas	E	
Vanice Beach	180701040403				E		E				E	E				Eas	E	
Marina Del Rey																		
Harbor	180701040403				E		E				E	E					E	
Public Beach Areas	180701040403				E		E				E	E					E	
All other Areas	180701040403				E		E				E	E					E	
Entrance Channel	180701040403				E		E				E	E					E	
Ballona Creek Estuary ^k	180701040300				E		E			E	E	E		Ee	Ef	Ef	E	
Ballona Lagoon/Venice Canals ^l	180701040300				E		E			E	E	E		Ee	Ef	Ef	E	E
Ballona Wetlands ^m	180701040300				E		E			E	E	E		Ee	Ef	Ef	E	E
Del Rey Lagoon ⁿ	180701040500				E		E			E	E	E		Ee	Ef	Ef	E	E
Dockweiler Beach	180701040500		E		E		E				E	E				P	E	
Manhattan Beach	180701040500				E		E				E	E				P	E	
Hermosa Beach	180701040500				E		E				E	E				Eas	E	
King Harbor	180701040500		E		E		E				E	E				Eas	E	
Redondo Beach	180701040500		E		E		E				E	E				Eas	E	
Torrance Beach	180701040500				E		E				E	E				Eas	E	
Point Vicente Beach	180701040500				E		E				E	E				P	E	
Royal Palms Beach	180701040500				E		E				E	E				P	E	

Footnotes are consistent for all beneficial use tables.

E: Existing beneficial use.

P: Potential beneficial use.

I: Intermittent beneficial use.

E, P, and I shall be protected as required.

a: Waterbodies are listed multiple times if they cross hydrologic area or subarea boundaries. Beneficial use designations apply to all tributaries to the indicated waterbody, if not listed separately.

b: Waterbodies designated as WET may have wetlands habitat associated with only a portion of the waterbody. Any regulatory action would require a detailed analysis of the area.

c: Coastal waterbodies which are also listed in inland Surface Waters Table (2-1) or in Wetlands Table (2-4).

e: One or more rare species utilizes all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.

f: Aquatic organisms utilize all bays, estuaries, lagoons, and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas which are heavily influenced by freshwater inputs.

ar: Areas exhibiting large shellfish populations include Malibu, Point Dume, Point Fermin, White Point and Zuma Beach.

as: Most frequently used grunion spawning beaches. Other beaches may be used as well.

w: These areas are engineered channels. All references to Tidal Prisms in Regional Board documents are functionally equivalent to estuaries.

Step 2 – Receiving Water Risk Worksheet

Receiving water risk is based on whether a project drains to a water body or watershed that is sediment-sensitive. If the answer to either question below is “yes”, the project is considered a **high** receiving water risk. If the answer to both questions below is “no”, the project is considered a **low** receiving water risk.

- No 1. Does the disturbed area discharge (either directly or indirectly) to a 303(d)-listed water body impaired by sediment? For help with identifying impaired water bodies, please refer to the [2020 – 2022 California Integrated Report \(Clean Water Act Section 303\(d\) - 305\(b\) Report\)](https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html) (https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html).

OR

- No 2. Does the disturbed area discharge (either directly or indirectly) to a water body with designated beneficial uses of COLD, SPAWN, and MIGRATORY? For help with identifying designated beneficial uses, please refer to the appropriate Regional Water Quality Control Board Basin Plan below.

[Region 1 – North Coast Basin Plan](https://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/)

(https://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/)

[Region 2 – San Francisco Bay Basin Plan](https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html#2010basinplan)

(https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html#2010basinplan)

[Region 3 – Central Coast Basin Plan](https://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/index.html)

(https://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/index.html)

[Region 4 – Los Angeles Basin Plan](https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/)

(https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/)

[Region 5 – Central Valley Basin Plan³](https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/index.html)

(https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/index.html)

[Region 6 – Lahontan Basin Plan](https://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/index.html)

(https://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/index.html)

[Region 7 – Colorado River Basin Plan](https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/)

(https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/)

[Region 8 – Santa Ana Basin Plan](https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/index.html)

(https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/index.html)

3 The Central Valley Basin Plan lists the COLD beneficial use designation as part of the SPAWN and MIGRATORY beneficial uses. Waterbodies will be considered high-risk receiving waters if listed as SPAWN (COLD) and MIGRATORY (COLD).

Region 9 – San Diego Basin Plan

(https://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.html)

Sediment-Sensitive Watershed GIS Map Method

State Water Board staff has prepared a [High-Risk Receiving Watershed Map tool](https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/guidance/receivingwaterrisk.pdf) (https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/guidance/receivingwaterrisk.pdf) to assist dischargers with determining site-specific receiving water risk. Additionally, SMARTS is equipped with an auto-populate feature that can determine the receiving water risk based on the project latitude and longitude coordinates. Projects located in the watersheds highlighted in red are considered high-risk. Please note that the map option may not reflect the correct receiving watershed, lacking site-specific drainage information.

The discharger is responsible for identifying the appropriate receiving water. If the project does not discharge to the watershed as depicted on the High-Risk Receiving Watershed Map, please contact the appropriate Regional Water Quality Control Board.

Site-Specific Receiving Water Risk (High or Low) = _____

Step 3 – Combined Risk Level Matrix

The below matrix is used to determine the combined Risk Level of the project, factoring in both sediment risk and receiving water risk.

		Sediment Risk		
		Low	Medium	High
Receiving Water Risk	Low	Level 1	Level 2	
	High	Level 2		Level 3

Combined Risk Level (1, 2, or 3) = _____ 1 _____

Appendix C SWPPP Amendment QSD Certifications

SWPPP Amendment No. _____

Project Name: **LAWA ATMP -- Roadway Improvements**

Project Number/ID: **DA-5609**

**Qualified SWPPP Developer's Certification of the
Stormwater Pollution Prevention Plan Amendment**

"This Stormwater Pollution Prevention Plan and its appendices were prepared under my direction to meet the requirements of the California Construction Stormwater General Permit (Order No. 2022-0057-DWQ). I certify that I am a Qualified SWPPP Developer in good standing as of the date signed below and will maintain up to date credentials for the duration of this project."

QSD Signature

Date

QSD Name

QSD Certificate Number

Title and Affiliation

Telephone Number

Address

Email

Appendix D Submitted Changes of Information

Log of Updated PRDs

The 2022 CGP allows for the reduction or increase of the total acreage when a portion of the project is complete and/or conditions for termination of coverage have been met; when ownership of a portion of the project is purchased by a different entity; or when new acreage is added to the project.

A Change of Information (COI) shall be filed electronically within the timeframe shown in the table below. The SWPPP shall be modified appropriately, with revisions and amendments recorded in the SWPPP Amendment Log at the front of the SWPPP. COIs submitted electronically via SMARTS can be found in this Appendix.

Reason for Filing COI	Timeline for Filing COI
Reduction or increase in total disturbed area	Within 30 days of the reduction or increase
Updating site specific BMPs	Within 14 days of design change
Change construction start or end date	At least 14 days prior to the date to be changed
Post-construction plans updated or approved by the municipal stormwater permittee	Within 14 days of approval

This appendix includes all of the following updated PRDs (check all that apply):

- ☐ Change of Information;
- ☐ Revise Site Drawings and Maps;
- ☐ Revise Risk Assessment;
- ☐ New landowner's information (name, address, phone number, email address); and
- ☐ New signed certification statement.

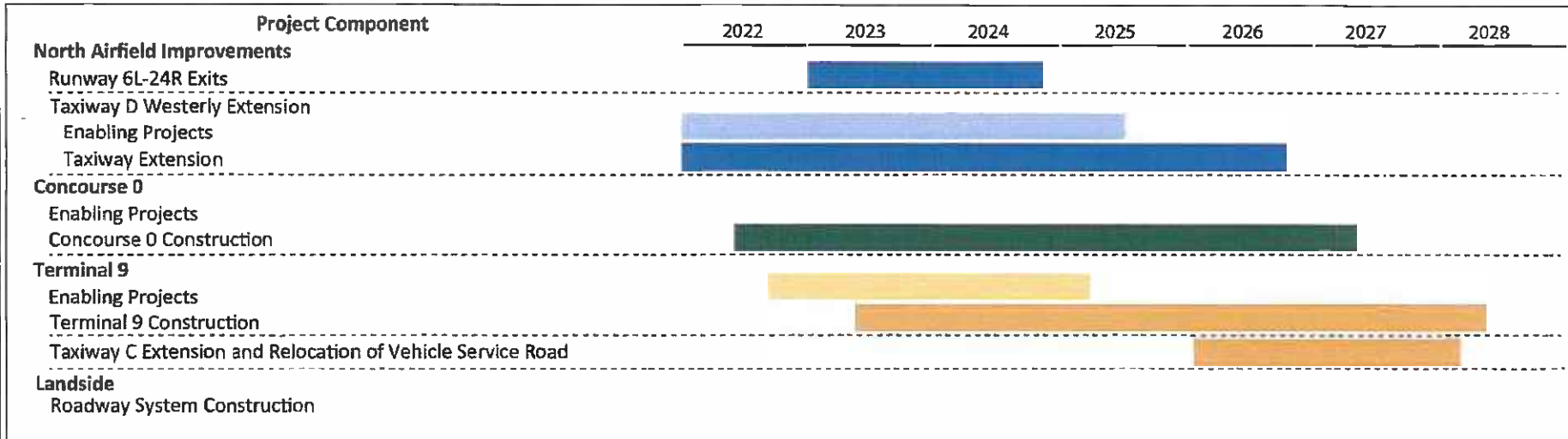
Signature of LRP or DAR

Date

Name of LRP or DAR

Telephone Number

Appendix E Construction Schedule



Sources: CDM Smith
 Prepared by: CDM Smith, July 2021

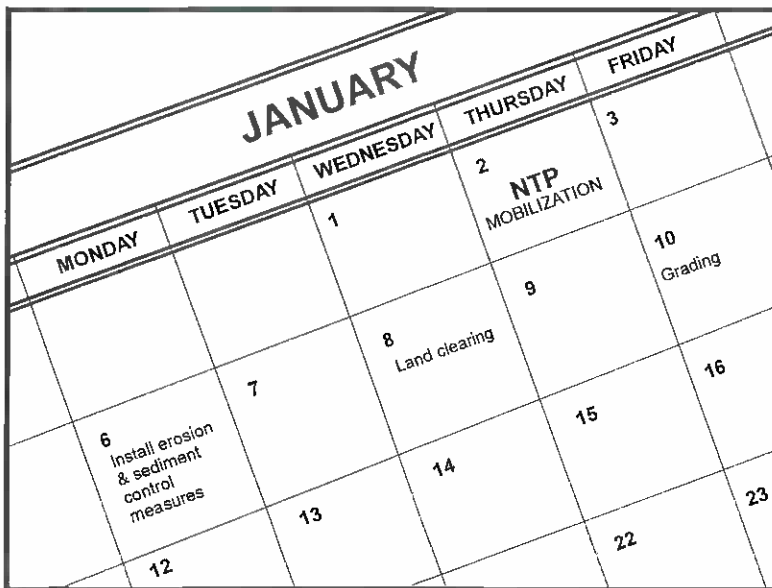
Appendix F Construction Activities, Material Used, and Associated Pollutants

Table F-1 Pollutant Source Assessment Form

Activity	
<ul style="list-style-type: none"> • Base, sub-base and fill import operations • Cast-in-place wall construction • Clear and grub operations • Demolition and construction activities • Equipment washing • Grading operations • Grouting, batch plant, and water treatment system operation (as needed) • Roadway demolition, construction and improvements • Soil stabilization and support enhancement • Soldier pile drilling • Framing / Carpentry • Landscaping • Portable toilets 	
Associated Materials or Pollutants	Pollutant Category⁽¹⁾
Asphaltic emulsions associated with asphalt-concrete paving and patching operations	Synthetic Organics
BMP materials (gravel bags etc.)	Sediment
Base, sub-base and ballast material	Sediment
Concrete and concrete curing compounds	pH, Sediment, Synthetic Organics
Fuel and hydraulic fluids for heavy machinery	Oil and Grease
Lime for soil support	Sediment, pH
Packaging material	Synthetic Organics
Seal grease, paints, solvents and thinners	Synthetic Organics
Vehicle fluids, including oil, grease, petroleum, and coolants	Oil and Grease
Water treatment system chemicals: acids, bases, flocculants	Turbidity, pH
Wood debris and metal cuttings	Sediment
Treated wood	Metals

⁽¹⁾ Categories per (i.e., Sediment, Nutrients, Bacteria and Viruses, Oil and Grease, Metals, Synthetic Organics, Pesticides, Gross Pollutants, and Vector Production)

Appendix G CASQA Stormwater BMP Handbook: Construction Fact Sheets



Description and Purpose

Scheduling is the development of a written plan that includes sequencing of construction activities and the implementation of BMPs such as erosion control and sediment control while taking local climate (rainfall, wind, etc.) into consideration. The purpose is to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking, and to perform the construction activities and control practices in accordance with the planned schedule.

Suitable Applications

Proper sequencing of construction activities to reduce erosion potential should be incorporated into the schedule of every construction project especially during rainy season. Use of other, more costly yet less effective, erosion and sediment control BMPs may often be reduced through proper construction sequencing.

Limitations

- Environmental constraints such as nesting season prohibitions reduce the full capabilities of this BMP.

Implementation

- Avoid rainy periods. Schedule major grading operations during dry months when practical. Allow enough time before rainfall begins to stabilize the soil with vegetation or physical means or to install sediment trapping devices.
- Plan the project and develop a schedule showing each phase of construction. Clearly show how the rainy season relates

Categories

EC	Erosion Control	<input checked="" type="checkbox"/>
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	<input checked="" type="checkbox"/>
WE	Wind Erosion Control	<input checked="" type="checkbox"/>
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

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to soil disturbing and re-stabilization activities. Incorporate the construction schedule into the SWPPP.

- Include on the schedule, details on the rainy season implementation and deployment of:
 - Erosion control BMPs
 - Sediment control BMPs
 - Tracking control BMPs
 - Wind erosion control BMPs
 - Non-stormwater BMPs
 - Waste management and materials pollution control BMPs
- Include dates for activities that may require non-stormwater discharges such as dewatering, sawcutting, grinding, drilling, boring, crushing, blasting, painting, hydro-demolition, mortar mixing, pavement cleaning, etc.
- Work out the sequencing and timetable for the start and completion of each item such as site clearing and grubbing, grading, excavation, paving, foundation pouring utilities installation, etc., to minimize the active construction area during the rainy season.
 - Sequence trenching activities so that most open portions are closed before new trenching begins.
 - Incorporate staged seeding and re-vegetation of graded slopes as work progresses.
 - Schedule establishment of permanent vegetation during appropriate planting time for specified vegetation.
- Non-active areas should be stabilized as soon as practical after the cessation of soil disturbing activities or one day prior to the onset of precipitation.
- Monitor the weather forecast for rainfall.
- When rainfall is predicted, adjust the construction schedule to allow the implementation of soil stabilization and sediment treatment controls on all disturbed areas prior to the onset of rain.
- Be prepared year-round to deploy erosion control and sediment control BMPs. Erosion may be caused during dry seasons by un-seasonal rainfall, wind, and vehicle tracking. Keep the site stabilized year-round and retain and maintain rainy season sediment trapping devices in operational condition.
- Apply permanent erosion control to areas deemed substantially complete during the project's defined seeding window.
- Avoid soil disturbance during periods with high wind velocities.

Costs

Construction scheduling to reduce erosion may increase other construction costs due to reduced economies of scale in performing site grading. The cost effectiveness of scheduling techniques

should be compared with the other less effective erosion and sedimentation controls to achieve a cost-effective balance.

Inspection and Maintenance

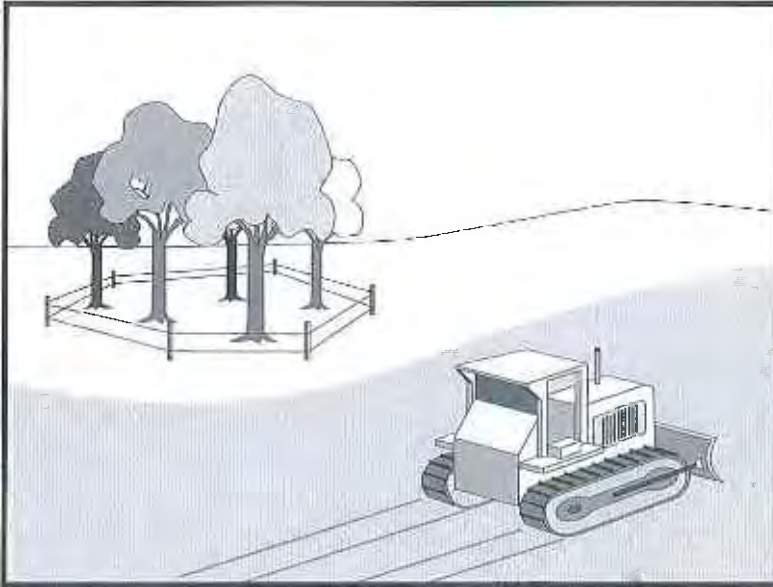
- Verify that work is progressing in accordance with the schedule. If progress deviates, take corrective actions.
- Amend the schedule when changes are warranted.
- Amend the schedule prior to the rainy season to show updated information on the deployment and implementation of construction site BMPs.

References

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities Developing Pollution Prevention Plans and Best Management Practices (EPA 832-R-92-005), U.S. Environmental Protection Agency, Office of Water, September 1992.

Preservation of Existing Vegetation EC-2



Description and Purpose

Carefully planned preservation of existing vegetation minimizes the potential of removing or injuring existing trees, vines, shrubs, and grasses that protect soil from erosion.

Suitable Applications

Preservation of existing vegetation is suitable for use on most projects. Large project sites often provide the greatest opportunity for use of this BMP. Suitable applications include the following:

- Areas within the site where no construction activity occurs or occurs at a later date. This BMP is especially suitable to multi year projects where grading can be phased.
- Areas where natural vegetation exists and is designated for preservation. Such areas often include steep slopes, watercourse, and building sites in wooded areas.
- Areas where local, state, and federal government require preservation, such as vernal pools, wetlands, marshes, certain oak trees, etc. These areas are usually designated on the plans, or in the specifications, permits, or environmental documents.
- Where vegetation designated for ultimate removal can be temporarily preserved and be utilized for erosion control and sediment control.
- Protecting existing vegetation buffers and swales.

Categories

EC	Erosion Control	<input checked="" type="checkbox"/>
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

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Preservation of Existing Vegetation EC-2

Limitations

- Requires forward planning by the owner/developer, contractor, and design staff.
- Limited opportunities for use when project plans do not incorporate existing vegetation into the site design.
- For sites with diverse topography, it is often difficult and expensive to save existing trees while grading the site satisfactory for the planned development.

Implementation

The best way to prevent erosion is to not disturb the land. In order to reduce the impacts of new development and redevelopment, projects may be designed to avoid disturbing land in sensitive areas of the site (e.g., natural watercourses, steep slopes), and to incorporate unique or desirable existing vegetation into the site's landscaping plan. Clearly marking and leaving a buffer area around these unique areas during construction will help to preserve these areas as well as take advantage of natural erosion prevention and sediment trapping.

Existing vegetation to be preserved on the site must be protected from mechanical and other injury while the land is being developed. The purpose of protecting existing vegetation is to ensure the survival of desirable vegetation for shade, beautification, and erosion control. Mature vegetation has extensive root systems that help to hold soil in place, thus reducing erosion. In addition, vegetation helps keep soil from drying rapidly and becoming susceptible to erosion. To effectively save existing vegetation, no disturbances of any kind should be allowed within a defined area around the vegetation. For trees, no construction activity should occur within the drip line of the tree.

Timing

- Provide for preservation of existing vegetation prior to the commencement of clearing and grubbing operations or other soil disturbing activities in areas where no construction activity is planned or will occur at a later date.

Design and Layout

- Mark areas to be preserved with temporary fencing. Include sufficient setback to protect roots.
 - Orange colored plastic mesh fencing works well.
 - Use appropriate fence posts and adequate post spacing and depth to completely support the fence in an upright position.
- Locate temporary roadways, stockpiles, and layout areas to avoid stands of trees, shrubs, and grass.
- Consider the impact of grade changes to existing vegetation and the root zone.
- Maintain existing irrigation systems where feasible. Temporary irrigation may be required.
- Instruct employees and subcontractors to honor protective devices. Prohibit heavy equipment, vehicular traffic, or storage of construction materials within the protected area.

Preservation of Existing Vegetation EC-2

- Consider pruning or mowing vegetation instead of removing it to allow for regrowth.
- If possible, retain vegetation buffer around the site and adjacent waterways.

Costs

There is little cost associated with preserving existing vegetation if properly planned during the project design, and these costs may be offset by aesthetic benefits that enhance property values. During construction, the cost for preserving existing vegetation will likely be less than the cost of applying erosion and sediment controls to the disturbed area. Replacing vegetation inadvertently destroyed during construction can be extremely expensive, sometimes in excess of \$10,000 per tree.

Inspection and Maintenance

During construction, the limits of disturbance should remain clearly marked at all times. Irrigation or maintenance of existing vegetation should be described in the landscaping plan. If damage to protected trees still occurs, maintenance guidelines described below should be followed:

- Verify that protective measures remain in place. Restore damaged protection measures immediately.
- Serious tree injuries shall be attended to by an arborist.
- Damage to the crown, trunk, or root system of a retained tree shall be repaired immediately.
- Trench as far from tree trunks as possible, usually outside of the tree drip line or canopy. Curve trenches around trees to avoid large roots or root concentrations. If roots are encountered, consider tunneling under them. When trenching or tunneling near or under trees to be retained, place tunnels at least 18 in. below the ground surface, and not below the tree center to minimize impact on the roots.
- Do not leave tree roots exposed to air. Cover exposed roots with soil as soon as possible. If soil covering is not practical, protect exposed roots with wet burlap or peat moss until the tunnel or trench is ready for backfill.
- Cleanly remove the ends of damaged roots with a smooth cut.
- Fill trenches and tunnels as soon as possible. Careful filling and tamping will eliminate air spaces in the soil, which can damage roots.
- If bark damage occurs, cut back all loosened bark into the undamaged area, with the cut tapered at the top and bottom and drainage provided at the base of the wood. Limit cutting the undamaged area as much as possible.
- Aerate soil that has been compacted over a tree's root zone by punching holes 12 in. deep with an iron bar and moving the bar back and forth until the soil is loosened. Place holes 18 in. apart throughout the area of compacted soil under the tree crown.
- Fertilization:

Preservation of Existing Vegetation EC-2

- Fertilize trees in the late fall or early spring. Although to note, many native species do not require fertilization.
- Apply fertilizer to the soil over the feeder roots and in accordance with label instructions, but never closer than 3 ft to the trunk. Increase the fertilized area by one-fourth of the crown area for conifers that have extended root systems.
- Retain protective measures until all other construction activity is complete to avoid damage during site cleanup and stabilization.

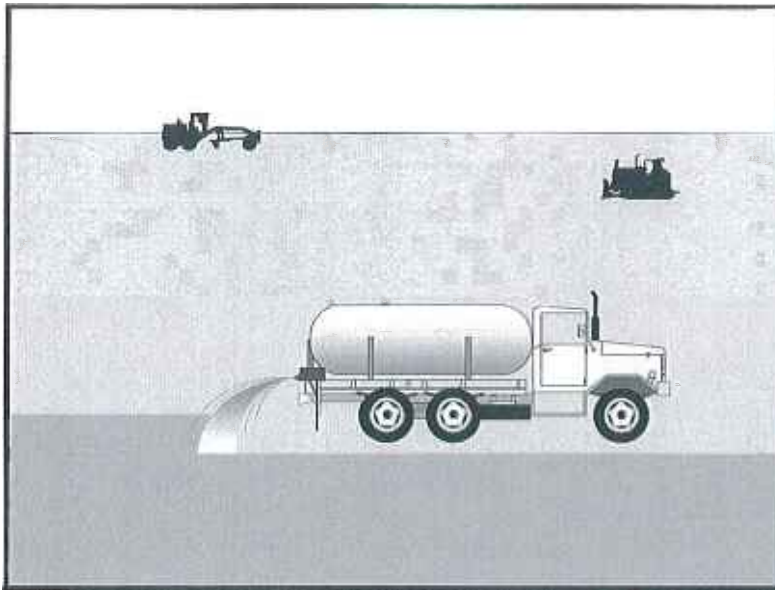
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County of Sacramento Tree Preservation Ordinance, September 1981.

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management of the Puget Sound Basin, Technical Manual, Publication #91-75, Washington State Department of Ecology, February 1992.

Water Quality Management Plan for The Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency, November 1988.



Description and Purpose

Soil binding consists of application and maintenance of a soil stabilizer to exposed soil surfaces. Soil binders are materials applied to the soil surface to temporarily prevent water and wind induced erosion of exposed soils on construction sites.

Suitable Applications

Soil binders are typically applied to disturbed areas requiring temporary protection. Because soil binders, when used as a stand-alone practice, can often be incorporated into the soil, they are a good alternative to mulches in areas where grading activities will soon resume. Soil binders are commonly used in the following areas:

- Rough graded soils that will be inactive for a short period of time.
- Soil stockpiles.
- Temporary haul roads prior to placement of crushed rock.
- Compacted soil road base.
- Construction staging, materials storage, and layout areas.
- Slopes and areas requiring stabilization prior to rain.
- Disturbed areas subject to high winds.

Categories

EC	Erosion Control	<input checked="" type="checkbox"/>
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	<input checked="" type="checkbox"/>
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ **Primary Category**
- ☒ **Secondary Category**

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

- EC-3 Hydraulic Mulch
- EC-4 Hydroseeding
- EC-6 Straw Mulch
- EC-7 Geotextiles and Mats
- EC-8 Wood Mulching

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Limitations

- Soil binders are temporary in nature and may need reapplication.
- Soil binders require a minimum curing time until fully effective, as prescribed by the manufacturer. Curing time may be 24 hours or longer. Soil binders may need reapplication after a storm event.
- Soil binders will generally experience spot failures during heavy rainfall events. If runoff penetrates the soil at the top of a slope treated with a soil binder, it is likely that the runoff will undercut the stabilized soil layer and discharge at a point further down slope.
- Plant-material-based soil binders do not generally hold up to pedestrian or vehicular traffic across treated areas as well as polymeric emulsion blends or cementitious-based binders.
- Soil binders may not sufficiently penetrate compacted soils.
- Some soil binders are soil texture specific in terms of their effectiveness. For example, polyacrylamides (PAMs) work very well on silt and clayey soils but their performance decreases dramatically in sandy soils.
- Some soil binders may not perform well with low relative humidity. Under rainy conditions, some agents may become slippery or leach out of the soil.
- Soil binders may not cure if low temperatures occur within 24 hours of application.
- The water quality impacts of some chemical soil binders are relatively unknown, and some may have water quality impacts due to their chemical makeup. Additionally, these chemicals may require non-visible pollutant monitoring. Products should be evaluated for project-specific implementation by the SWPPP Preparer. Refer to the product Material Safety Data Sheet for chemical properties.

Implementation

General Considerations

- Soil binders should conform to local municipality specifications and requirements.
- Site soil types will dictate appropriate soil binders to be used.
- A soil binder must be environmentally benign (non-toxic to plant and animal life), easy to apply, easy to maintain, economical, and should not stain paved or painted surfaces. Soil binders should not pollute stormwater when cured. Obtain a Safety Data Sheet (SDS) from the manufacturer to ensure non-toxicity (note however, the SDS may not include ecological information).
- Stormwater runoff from PAM treated soils should pass through one of the following sediment control BMP prior to discharging to surface waters.
 - When the total drainage area is greater than or equal to 5 acres, PAM treated areas should drain to a sediment basin.

- Areas less than 5 acres should drain to sediment control BMPs, such as a sediment trap, or a series of check dams. The total number of check dams used should be maximized to achieve the greatest amount of settlement of sediment prior to discharging from the site. Each check dam should be spaced evenly in the drainage channel through which stormwater flows are discharged off site.
- Performance of soil binders depends on temperature, humidity, and traffic across treated areas.
- Avoid over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.
- Some soil binders are designed for application to roads.
- Additional guidance on the comparison and selection of temporary slope stabilization methods is provided in Appendix F of the Handbook.

Selecting a Soil Binder

Properties of common soil binders used for erosion control are provided on Table 1 at the end of this Fact Sheet. Use Table 1 to select an appropriate soil binder. Refer to WE-1, Wind Erosion Control, for dust control soil binders.

Factors to consider when selecting a soil binder include the following:

- Suitability to situation - Consider where the soil binder will be applied, if it needs a high resistance to leaching or abrasion, and whether it needs to be compatible with any existing vegetation. Determine the length of time soil stabilization will be needed, and if the soil binder will be placed in an area where it will degrade rapidly. In general, slope steepness is not a discriminating factor for the listed soil binders.
- Soil types and surface materials - Fines and moisture content are key properties of surface materials. Consider a soil binder's ability to penetrate, likelihood of leaching, and ability to form a surface crust on the surface materials.
- Frequency of application - The frequency of application is related to the functional longevity of the binder, which can be affected by subgrade conditions, surface type, climate, and maintenance schedule.
- Frequent applications could lead to high costs. Application frequency may be minimized if the soil binder has good penetration, low evaporation, and good longevity. Consider also that frequent application will require frequent equipment clean up.

Plant-Material-Based (Short Lived, <6 months) Binders

Guar: Guar is a non-toxic, biodegradable, natural galactomannan-based hydrocolloid treated with dispersant agents for easy field mixing. It should be mixed with water at the rate of 11 to 15 lb per 1,000 gallons. Recommended minimum application rates are as follows:

Application Rates for Guar Soil Stabilizer

Slope (H:V):	Flat	4:1	3:1	2:1	1:1
lb/acre:	40	45	50	60	70

Psyllium: Psyllium is composed of the finely ground muciloid coating of plantago seeds that is applied as a dry powder or in a wet slurry to the surface of the soil. It dries to form a firm but rewettable membrane that binds soil particles together but permits germination and growth of seed. Psyllium requires 12 to 18 hours drying time. Application rates should be from 80 to 200 lb/acre, with enough water in solution to allow for a uniform slurry flow.

Starch: Starch is non-ionic, cold water soluble (pre-gelatinized) granular cornstarch. The material is mixed with water and applied at the rate of 150 lb/acre. Approximate drying time is 9 to 12 hours.

Plant-Material-Based (Long Lived, 6-12 months) Binders

Pitch and Rosin Emulsion: Generally, a non-ionic pitch and rosin emulsion has a minimum solids content of 48%. The rosin should be a minimum of 26% of the total solids content. The soil stabilizer should be non-corrosive, water dilutable emulsion that upon application cures to a water insoluble binding and cementing agent. For soil erosion control applications, the emulsion is diluted and should be applied as follows:

- For clayey soil: 5 parts water to 1-part emulsion
- For sandy soil: 10 parts water to 1-part emulsion

Application can be by water truck or hydraulic seeder with the emulsion and product mixture applied at the rate specified by the manufacturer.

Polymeric Emulsion Blend Binders

Acrylic Copolymers and Polymers: Polymeric soil stabilizers should consist of a liquid or solid polymer or copolymer with an acrylic base that contains a minimum of 55% solids. The polymeric compound should be handled and mixed in a manner that will not cause foaming or should contain an anti-foaming agent. The polymeric emulsion should not exceed its shelf life or expiration date; manufacturers should provide the expiration date. Polymeric soil stabilizer should be readily miscible in water, non-injurious to seed or animal life, non-flammable, should provide surface soil stabilization for various soil types without totally inhibiting water infiltration, and should not re-emulsify when cured. The applied compound typically requires 12 to 24 hours drying time. Liquid copolymer should be diluted at a rate of 10 parts water to 1-part polymer and the mixture applied to soil at a rate of 1,175 gallons/acre.

Liquid Polymers of Methacrylates and Acrylates: This material consists of a tackifier/sealer that is a liquid polymer of methacrylates and acrylates. It is an aqueous 100% acrylic emulsion blend of 40% solids by volume that is free from styrene, acetate, vinyl, ethoxylated surfactants or silicates. For soil stabilization applications, it is diluted with water in accordance with the manufacturer's recommendations and applied with a hydraulic seeder at the rate of 20 gallons/acre. Drying time is 12 to 18 hours after application.

Copolymers of Sodium Acrylates and Acrylamides: These materials are non-toxic, dry powders that are copolymers of sodium acrylate and acrylamide. They are mixed with water and applied to the soil surface for erosion control at rates that are determined by slope gradient:

Slope Gradient (H:V)	lb/acre
Flat to 5:1	3.0 – 5.0
5:1 to 3:1	5.0 – 10.0
2:1 to 1:1	10.0 – 20.0

Poly-Acrylamide (PAM) and Copolymer of Acrylamide: Linear copolymer polyacrylamide for use as a soil binder is packaged as a dry flowable solid, as a liquid. Refer to the manufacturer's recommendation for dilution and application rates as they vary based on liquid or dry form, site conditions and climate.

- Limitations specific to PAM are as follows:
 - Do not use PAM on a slope that flows into a water body without passing through a sediment trap or sediment basin.
 - The specific PAM copolymer formulation must be anionic. Cationic PAM should not be used in any application because of known aquatic toxicity problems. Only the highest drinking water grade PAM, certified for compliance with ANSI/NSF Standard 60 for drinking water treatment, should be used for soil applications.
 - PAM designated for erosion and sediment control should be "water soluble" or "linear" or "non-cross linked".
 - PAM should not be used as a stand-alone BMP to protect against water-based erosion. When combined with mulch, its effectiveness increases dramatically.

Hydro-Colloid Polymers: Hydro-Colloid Polymers are various combinations of dry flowable poly-acrylamides, copolymers and hydro-colloid polymers that are mixed with water and applied to the soil surface at rates of 55 to 60 lb/acre. Drying times are 0 to 4 hours.

Cementitious-Based Binders

Gypsum: This is a formulated gypsum-based product that readily mixes with water and mulch to form a thin protective crust on the soil surface. It is composed of high purity gypsum that is ground, calcined and processed into calcium sulfate hemihydrate with a minimum purity of 86%. It is mixed in a hydraulic seeder and applied at rates 4,000 to 12,000 lb/acre. Drying time is 4 to 8 hours.

Applying Soil Binders

After selecting an appropriate soil binder, the untreated soil surface must be prepared before applying the soil binder. The untreated soil surface must contain sufficient moisture to assist the agent in achieving uniform distribution. In general, the following steps should be followed:

- Follow manufacturer's written recommendations for application rates, pre-wetting of application area, and cleaning of equipment after use.
- Prior to application, roughen embankment and fill areas.
- Consider the drying time for the selected soil binder and apply with sufficient time before anticipated rainfall. Soil binders should not be applied during or immediately before rainfall.
- Avoid over spray onto roads, sidewalks, drainage channels, sound walls, existing vegetation, etc.

- Soil binders should not be applied to frozen soil, areas with standing water, under freezing or rainy conditions, or when the temperature is below 40°F during the curing period.
- More than one treatment is often necessary, although the second treatment may be diluted or have a lower application rate.
- Generally, soil binders require a minimum curing time of 24 hours before they are fully effective. Refer to manufacturer's instructions for specific cure time.
- For liquid agents:
 - Crown or slope ground to avoid ponding.
 - Uniformly pre-wet ground at 0.03 to 0.3 gal/yd² or according to manufacturer's recommendations.
 - Apply solution under pressure. Overlap solution 6 to 12 in.
 - Allow treated area to cure for the time recommended by the manufacturer; typically, at least 24 hours.
 - Apply second treatment before first treatment becomes ineffective, using 50% application rate.
 - In low humidities, reactivate chemicals by re-wetting with water at 0.1 to 0.2 gal/yd².

Costs

Costs vary according to the soil stabilizer selected for implementation. The following are approximate installed costs:

Soil Binder	Cost per Acre
Plant-Material-Based (Short Lived) Binders	\$900-\$1,200
Plant-Material-Based (Long Lived) Binders	\$1,500-\$1,900
Polymeric Emulsion Blend Binders	\$900-\$1,900
Cementitious-Based Binders	\$1,000-\$1,500

Source: Cost information received from individual product manufacturers solicited by Geosyntec Consultants (2004). Adjusted for inflation (2016 dollars) by Tetra Tech Inc.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Areas where erosion is evident should be repaired and BMPs re-applied as soon as possible. Care should be exercised to minimize the damage to protected areas while making repairs, as any area damaged will require re-application of BMPs.

- Reapply the selected soil binder as needed to maintain effectiveness.

Table 1 Properties of Soil Binders for Erosion Control				
Evaluation Criteria	Binder Type			
	Plant Material Based (Short Lived)	Plant Material Based (Long Lived)	Polymeric Emulsion Blends	Cementitious-Based Binders
Relative Cost	Low	Moderate to High	Low to High	Low to Moderate
Resistance to Leaching	High	High	Low to Moderate	Moderate
Resistance to Abrasion	Moderate	Low	Moderate to High	Moderate to High
Longevity	Short to Medium	Medium	Medium to Long	Medium
Minimum Curing Time before Rain	9 to 18 hours	19 to 24 hours	0 to 24 hours	4 to 8 hours
Compatibility with Existing Vegetation	Good	Poor	Poor	Poor
Mode of Degradation	Biodegradable	Biodegradable	Photodegradable/Chemically Degradable	Photodegradable/Chemically Degradable
Labor Intensive	No	No	No	No
Specialized Application Equipment	Water Truck or Hydraulic Mulcher	Water Truck or Hydraulic Mulcher	Water Truck or Hydraulic Mulcher	Water Truck or Hydraulic Mulcher
Liquid/Powder	Powder	Liquid	Liquid/Powder	Powder
Surface Crusting	Yes, but dissolves on rewetting	Yes	Yes, but dissolves on rewetting	Yes
Clean Up	Water	Water	Water	Water
Erosion Control Application Rate	Varies ⁽¹⁾	Varies ⁽¹⁾	Varies ⁽¹⁾	4,000 to 12,000 lbs/acre

(1) See Implementation for specific rates.

References

Erosion Control Pilot Study Report, State of California Department of Transportation (Caltrans), June 2000.

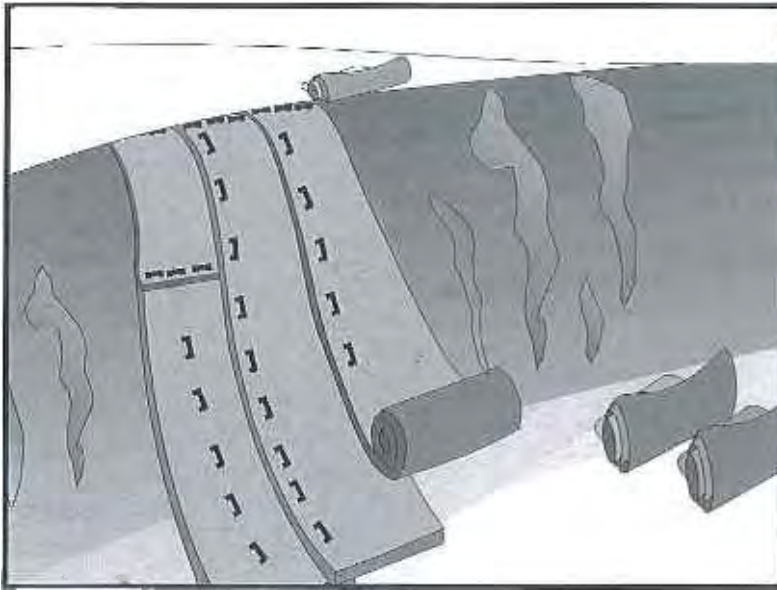
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Sedimentation and Erosion Control, An Inventory of Current Practices Draft, US EPA, April 1990.

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Guidance Document: Soil Stabilization for Temporary Slopes, State of California Department of Transportation (Caltrans), November 1999.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.



Description and Purpose

Rolled Erosion Control Products (RECPs), also known as erosion control matting or blankets, can be made of natural or synthetic materials or a combination of the two. RECPs are used to cover the soil surface to reduce erosion from rainfall impact, hold soil in place, and absorb and hold moisture near the soil surface. Additionally, RECPs may be used to stabilize soils until vegetation is established or to reinforce non-woody surface vegetation.

Suitable Applications

RECPs are typically applied on slopes where erosion hazard is high, and vegetation will be slow to establish. Matting is also used on stream banks, swales and other drainage channels where moving water at velocities between 3 ft/s and 6 ft/s are likely to cause scour and wash out new vegetation and in areas where the soil surface is disturbed and where existing vegetation has been removed. RECPs may also be used when seeding cannot occur (e.g., late season construction and/or the arrival of an early rain season). RECPs should be considered when the soils are fine grained and potentially erosive. RECPs should be considered in the following situations:

- Steep slopes, generally steeper than 3:1 (H:V).
- Long slopes.
- Slopes where the erosion potential is high.
- Slopes and disturbed soils where mulch must be anchored.

Categories

EC	Erosion Control	<input checked="" type="checkbox"/>
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	<input checked="" type="checkbox"/>
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

- EC-3 Hydraulic Mulch
- EC-4 Hydroseeding

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- Disturbed areas where temporary cover is needed, or plants are slow to establish or will not establish.
- Channels with flows exceeding 3.3 ft/s.
- Channels to be vegetated.
- Stockpiles.
- Slopes adjacent to water bodies.

Limitations

- RECP installed costs are generally higher than other erosion control BMPs, limiting their use to areas where other BMPs are ineffective (e.g., channels, steep slopes).
- RECPs may delay seed germination, due to reduction in soil temperature and/or sunlight.
- RECPs are generally not suitable for excessively rocky sites or areas where the final vegetation will be mowed (since staples and netting can catch in mowers). If a staple or pin cannot be driven into the soil because the underlying soil is too hard or rocky, then an alternative BMP should be selected.
- If used for temporary erosion control, RECPs should be removed and disposed of prior to application of permanent soil stabilization measures.
- The use of plastic sheeting should be limited to covering stockpiles or very small graded areas for short periods of time (such as through one imminent storm event) until other measures, such as seeding and mulching, may be installed.
 - Plastic sheeting is easily vandalized, easily torn, photodegradable, and must be disposed of at a landfill.
 - Plastic sheeting results in 100% runoff, which may cause serious erosion problems in the areas receiving the increased flow.
- According to the State Water Board's *CGP Review, Issue #2*, only RECPs that either do not contain plastic netting or contain netting manufactured from 100% biodegradable non-plastic materials, such as jute, sisal, or coir fiber should be used due to plastic pollution and wildlife concerns. If a plastic-netted product is used for temporary stabilization, it must be promptly removed when no longer needed and removed or replaced with non-plastic netted RECPs for final stabilization.
- RECPs may have limitations based on soil type, slope gradient, or channel flow rate; consult the manufacturer for proper selection.
- Not suitable for areas that have foot traffic (tripping hazard) – e.g., pad areas around buildings under construction.
- RECPs that incorporate a plastic netting (e.g. straw blanket typically uses a plastic netting to hold the straw in place) may not be suitable near known wildlife habitat. Wildlife can become trapped in the plastic netting. As per State Water Board guidance, RECPs that

contain plastic netting are discouraged for temporary controls and are not acceptable alternatives for permanent controls. RECPs that do not contain plastic netting or contain netting manufactured from 100% biodegradable non-plastic materials such as jute, sisal, or coir fiber should be used.

- RECPs may have limitations in extremely windy climates; they are susceptible to wind damage and displacement. However, when RECPs are properly trenched at the top and bottom and stapled in accordance with the manufacturer's recommendations, problems with wind can be minimized.

Implementation

Material Selection

- Natural RECPs have been found to be effective where re-vegetation will be provided by re-seeding. The choice of material should be based on the size of area, side slopes, surface conditions such as hardness, moisture, weed growth, and availability of materials.
- Additional guidance on the comparison and selection of temporary slope stabilization methods is provided in Appendix F of the Handbook.
- The following natural and synthetic RECPs are commonly used:

Geotextiles

- Material can be a woven or a non-woven polypropylene fabric with minimum thickness of 0.06 in., minimum width of 12 ft and should have minimum tensile strength of 150 lbs (warp), 80 lbs (fill) in conformance with the requirements in ASTM Designation: D 4632. The permittivity of the fabric should be approximately 0.07 sec^{-1} in conformance with the requirements in ASTM Designation: D4491. The fabric should have an ultraviolet (UV) stability of 70 percent in conformance with the requirements in ASTM designation: D4355. Geotextile blankets must be secured in place with wire staples or sandbags and by keying into tops of slopes to prevent infiltration of surface waters under geotextile. Staples should be made of minimum 11-gauge steel wire and should be U-shaped with 8 in. legs and 2 in. crown.
- Geotextiles may be reused if they are suitable for the use intended.

Plastic Covers

- Generally plastic sheeting should only be used as stockpile covering or for very small graded areas for short periods of time (such as through one imminent storm event). If plastic sheeting must be used, choose a plastic that will withstand photo degradation.
- Plastic sheeting should have a minimum thickness of 6 mils and must be keyed in at the top of slope (when used as a temporary slope protection) and firmly held in place with sandbags or other weights placed no more than 10 ft apart. Seams are typically taped or weighted down their entire length, and there should be at least a 12 in. to 24 in. overlap of all seams. Edges should be embedded a minimum of 6 in. in soil (when used as a temporary slope protection).
- All sheeting must be inspected periodically after installation and after significant rainstorms to check for erosion, undermining, and anchorage failure. Any failures must be repaired

immediately. If washout or breakages occur, the material should be re-installed after repairing the damage to the slope.

Erosion Control Blankets/Mats

- Biodegradable RECPs are typically composed of jute fibers, curled wood fibers, straw, coconut fiber, or a combination of these materials. In order for an RECP to be considered 100% biodegradable, the netting, sewing or adhesive system that holds the biodegradable mulch fibers together must also be biodegradable. See typical installation details at the end of this fact sheet.
- **Jute** is a natural fiber that is made into a yarn that is loosely woven into a biodegradable mesh. The performance of jute as a stand-alone RECP is low. Most other RECPs outperform jute as a temporary erosion control product and therefore jute is not commonly used. It is designed to be used in conjunction with vegetation. The material is supplied in rolled strips, which should be secured to the soil with U-shaped staples or stakes in accordance with manufacturers' recommendations.
- **Excelsior** (curled wood fiber) blanket material should consist of machine produced mats of curled wood excelsior with 80 percent of the fiber 6 in. or longer. The excelsior blanket should be of consistent thickness. The wood fiber must be evenly distributed over the entire area of the blanket. The top surface of the blanket should be covered with a photodegradable extruded plastic mesh. The blanket should be smolder resistant without the use of chemical additives and should be non-toxic and non-injurious to plant and animal life. Excelsior blankets should be furnished in rolled strips, a minimum of 48 in. wide, and should have an average weight of 0.8 lb/yd², ± 10 percent, at the time of manufacture. Excelsior blankets must be secured in place with wire staples. Staples should be made of minimum 11-gauge steel wire and should be U-shaped with 8 in. legs and 2 in. crown.
- **Straw blanket** should be machine produced mats of straw with a lightweight biodegradable netting top layer. The straw should be attached to the netting with biodegradable thread or glue strips. The straw blanket should be of consistent thickness. The straw should be evenly distributed over the entire area of the blanket. Straw blanket should be furnished in rolled strips a minimum of 6.5 ft wide, a minimum of 80 ft long and a minimum of 0.5 lb/yd². Straw blankets must be secured in place with wire staples. Staples should be made of minimum 11-gauge steel wire and should be U-shaped with 8 in. legs and 2 in. crown.
- **Wood fiber blanket** is composed of biodegradable fiber mulch with extruded plastic netting held together with adhesives. The material is designed to enhance re-vegetation. The material is furnished in rolled strips, which must be secured to the ground with U-shaped staples or stakes in accordance with manufacturers' recommendations.
- **Coconut fiber blanket** should be a machine produced mat of 100 percent coconut fiber with biodegradable netting on the top and bottom. The coconut fiber should be attached to the netting with biodegradable thread or glue strips. The coconut fiber blanket should be of consistent thickness. The coconut fiber should be evenly distributed over the entire area of the blanket. Coconut fiber blanket should be furnished in rolled strips with a minimum of 6.5 ft wide, a minimum of 80 ft. long and a minimum of 0.5

lb/yd². Coconut fiber blankets must be secured in place with wire staples. Staples should be made of minimum 11-gauge steel wire and should be U-shaped with 8 in. legs and 2 in. crown.

- **Coconut fiber mesh** is a thin permeable membrane made from coconut or corn fiber that is spun into a yarn and woven into a biodegradable mat. It is designed to be used in conjunction with vegetation and typically has longevity of several years. The material is supplied in rolled strips, which must be secured to the soil with U-shaped staples or stakes in accordance with manufacturers' recommendations.
- **Straw coconut fiber blanket** should be machine produced mats of 70 percent straw and 30 percent coconut fiber with a biodegradable netting top layer and a biodegradable bottom net. The straw and coconut fiber should be attached to the netting with biodegradable thread or glue strips. The straw coconut fiber blanket should be of consistent thickness. The straw and coconut fiber should be evenly distributed over the entire area of the blanket. Straw coconut fiber blanket should be furnished in rolled strips a minimum of 6.5 ft wide, a minimum of 80 ft long and a minimum of 0.5 lb/yd². Straw coconut fiber blankets must be secured in place with wire staples. Staples should be made of minimum 11-gauge steel wire and should be U-shaped with 8 in. legs and 2 in. crown.
- Non-biodegradable RECPs are typically composed of polypropylene, polyethylene, nylon or other synthetic fibers. In some cases, a combination of biodegradable and synthetic fibers is used to construct the RECP. Netting used to hold these fibers together is typically non-biodegradable as well. Only biodegradable RECPs can remain on a site applying for a Notice of Termination due to plastic pollution and wild life concerns (State Waterboard, 2016). RECPs containing plastic that are used on a site must be disposed of for final stabilization.
- **Plastic netting** is a lightweight biaxially oriented netting designed for securing loose mulches like straw or paper to soil surfaces to establish vegetation. The netting is photodegradable. The netting is supplied in rolled strips, which must be secured with U-shaped staples or stakes in accordance with manufacturers' recommendations.
- **Plastic mesh** is an open weave geotextile that is composed of an extruded synthetic fiber woven into a mesh with an opening size of less than ¼ in. It is used with re-vegetation or may be used to secure loose fiber such as straw to the ground. The material is supplied in rolled strips, which must be secured to the soil with U-shaped staples or stakes in accordance with manufacturers' recommendations.
- **Synthetic fiber with netting** is a mat that is composed of durable synthetic fibers treated to resist chemicals and ultraviolet light. The mat is a dense, three-dimensional mesh of synthetic (typically polyolefin) fibers stitched between two polypropylene nets. The mats are designed to be re-vegetated and provide a permanent composite system of soil, roots, and geomatrix. The material is furnished in rolled strips, which must be secured with U-shaped staples or stakes in accordance with manufacturers' recommendations.
- **Bonded synthetic fibers** consist of a three-dimensional geometric nylon (or other synthetic) matting. Typically, it has more than 90 percent open area, which facilitates

root growth. It's tough root reinforcing system anchors vegetation and protects against hydraulic lift and shear forces created by high volume discharges. It can be installed over prepared soil, followed by seeding into the mat. Once vegetated, it becomes an invisible composite system of soil, roots, and geomatrix. The material is furnished in rolled strips that must be secured with U-shaped staples or stakes in accordance with manufacturers' recommendations.

- **Combination synthetic and biodegradable RECPs** consist of biodegradable fibers, such as wood fiber or coconut fiber, with a heavy polypropylene net stitched to the top and a high strength continuous filament geomatrix or net stitched to the bottom. The material is designed to enhance re-vegetation. The material is furnished in rolled strips, which must be secured with U-shaped staples or stakes in accordance with manufacturers' recommendations.

Site Preparation

- Proper soil preparation is essential to ensure complete contact of the RECP with the soil. Soil Roughening is not recommended in areas where RECPs will be installed.
- Grade and shape the area of installation.
- Remove all rocks, clods, vegetation or other obstructions so that the installed blankets or mats will have complete, direct contact with the soil.
- Prepare seedbed by loosening 2 to 3 in. of topsoil.

Seeding/Planting

Seed the area before blanket installation for erosion control and re-vegetation. Seeding after mat installation is often specified for turf reinforcement application. When seeding prior to blanket installation, all areas disturbed during blanket installation must be re-seeded. Where soil filling is specified for turf reinforcement mats (TRMs), seed the matting and the entire disturbed area after installation and prior to filling the mat with soil.

Fertilize and seed in accordance with seeding specifications or other types of landscaping plans. The protective matting can be laid over areas where grass has been planted and the seedlings have emerged. Where vines or other ground covers are to be planted, lay the protective matting first and then plant through matting according to design of planting.

Check Slots

Check slots shall be installed as required by the manufacturer.

Laying and Securing Matting

- Before laying the matting, all check slots should be installed and the seedbed should be friable, made free from clods, rocks, and roots. The surface should be compacted and finished according to the requirements of the manufacturer's recommendations.
- Mechanical or manual lay down equipment should be capable of handling full rolls of fabric and laying the fabric smoothly without wrinkles or folds. The equipment should meet the fabric manufacturer's recommendations or equivalent standards.

Anchoring

- U-shaped wire staples, metal geotextile stake pins, or triangular wooden stakes can be used to anchor mats and blankets to the ground surface.
- Wire staples should be made of minimum 11-gauge steel wire and should be U-shaped with 8 in. legs and 2 in. crown.
- Metal stake pins should be 0.188 in. diameter steel with a 1.5 in. steel washer at the head of the pin, and 8 in. in length.
- Wire staples and metal stakes should be driven flush to the soil surface.

Installation on Slopes

Installation should be in accordance with the manufacturer's recommendations. In general, these will be as follows:

- Begin at the top of the slope and anchor the blanket in a 6 in. deep by 6 in. wide trench. Backfill trench and tamp earth firmly.
- Unroll blanket down slope in the direction of water flow.
- Overlap the edges of adjacent parallel rolls 2 to 3 in. and staple every 3 ft (or greater, per manufacturer's specifications).
- When blankets must be spliced, place blankets end over end (shingle style) with 6 in. overlap. Staple through overlapped area, approximately 12 in. apart.
- Lay blankets loosely and maintain direct contact with the soil. Do not stretch.
- Staple blankets sufficiently to anchor blanket and maintain contact with the soil. Staples should be placed down the center and staggered with the staples placed along the edges. Steep slopes, 1:1 (H:V) to 2:1 (H:V), require a minimum of 2 staples/yd². Moderate slopes, 2:1 (H:V) to 3:1 (H:V), require a minimum of 1 ½ staples/yd². Check manufacturer's specifications to determine if a higher density staple pattern is required.

Installation in Channels

Installation should be in accordance with the manufacturer's recommendations. In general, these will be as follows:

- Dig initial anchor trench 12 in. deep and 6 in. wide across the channel at the lower end of the project area.
- Excavate intermittent check slots, 6 in. deep and 6 in. wide across the channel at 25 to 30 ft intervals along the channels.
- Cut longitudinal channel anchor trenches 4 in. deep and 4 in. wide along each side of the installation to bury edges of matting, whenever possible extend matting 2 to 3 in. above the crest of the channel side slopes.

- Beginning at the downstream end and in the center of the channel, place the initial end of the first roll in the anchor trench and secure with fastening devices at 12 in. intervals. Note: matting will initially be upside down in anchor trench.
- In the same manner, position adjacent rolls in anchor trench, overlapping the preceding roll a minimum of 3 in.
- Secure these initial ends of mats with anchors at 12 in. intervals, backfill and compact soil.
- Unroll center strip of matting upstream. Stop at next check slot or terminal anchor trench. Unroll adjacent mats upstream in similar fashion, maintaining a 3 in. overlap.
- Fold and secure all rolls of matting snugly into all transverse check slots. Lay mat in the bottom of the slot then fold back against itself. Anchor through both layers of mat at 12 in. intervals, then backfill and compact soil. Continue rolling all mat widths upstream to the next check slot or terminal anchor trench.
- Alternate method for non-critical installations: Place two rows of anchors on 6 in. centers at 25 to 30 ft. intervals in lieu of excavated check slots.
- Staple shingled lap spliced ends a minimum of 12 in. apart on 12 in. intervals.
- Place edges of outside mats in previously excavated longitudinal slots; anchor using prescribed staple pattern, backfill, and compact soil.
- Anchor, fill, and compact upstream end of mat in a 12 in. by 6 in. terminal trench.
- Secure mat to ground surface using U-shaped wire staples, geotextile pins, or wooden stakes.
- Seed and fill turf reinforcement matting with soil, if specified.

Soil Filling (if specified for turf reinforcement mat (TRM))

Installation should be in accordance with the manufacturer's recommendations. Typical installation guidelines are as follows:

- After seeding, spread and lightly rake $\frac{1}{2}$ - $\frac{3}{4}$ inches of fine topsoil into the TRM apertures to completely fill TRM thickness. Use backside of rake or other flat implement.
- Alternatively, if allowed by product specifications, spread topsoil using lightweight loader, backhoe, or other power equipment. Avoid sharp turns with equipment.
- Always consult the manufacturer's recommendations for installation.
- Do not drive tracked or heavy equipment over mat.
- Avoid any traffic over matting if loose or wet soil conditions exist.
- Use shovels, rakes, or brooms for fine grading and touch up.
- Smooth out soil filling just exposing top netting of mat.

Temporary Soil Stabilization Removal

- Temporary soil stabilization removed from the site of the work must be disposed of if necessary.

Costs

Installed costs can be relatively high compared to other BMPs. Approximate costs for installed materials are shown below:

Rolled Erosion Control Products		Installed Cost per Acre
Biodegradable	Jute Mesh	\$7,700-\$9,000
	Curled Wood Fiber	\$10,200-\$13,400
	Straw	\$10,200-\$13,400
	Wood Fiber	\$10,200-\$13,400
	Coconut Fiber	\$16,600-\$18,000
	Coconut Fiber Mesh	\$38,400-\$42,200
	Straw Coconut Fiber	\$12,800-\$15,400
Non-Biodegradable	Plastic Netting	\$2,600-\$2,800
	Plastic Mesh	\$3,800-\$4,500
	Synthetic Fiber with Netting	\$43,500-\$51,200
	Bonded Synthetic Fibers	\$57,600-\$70,400
	Combination with Biodegradable	\$38,400-\$46,100

Source: Cost information received from individual product manufacturers solicited by Geosyntec Consultants (2004). Adjusted for inflation (2016 dollars) by Tetra Tech, Inc.

Inspection and Maintenance

- RECPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Areas where erosion is evident shall be repaired and BMPs reapplied as soon as possible. Care should be exercised to minimize the damage to protected areas while making repairs, as any area damaged will require reapplication of BMPs.
- If washout or breakage occurs, re-install the material after repairing the damage to the slope or channel.
- Make sure matting is uniformly in contact with the soil.
- Check that all the lap joints are secure.
- Check that staples are flush with the ground.

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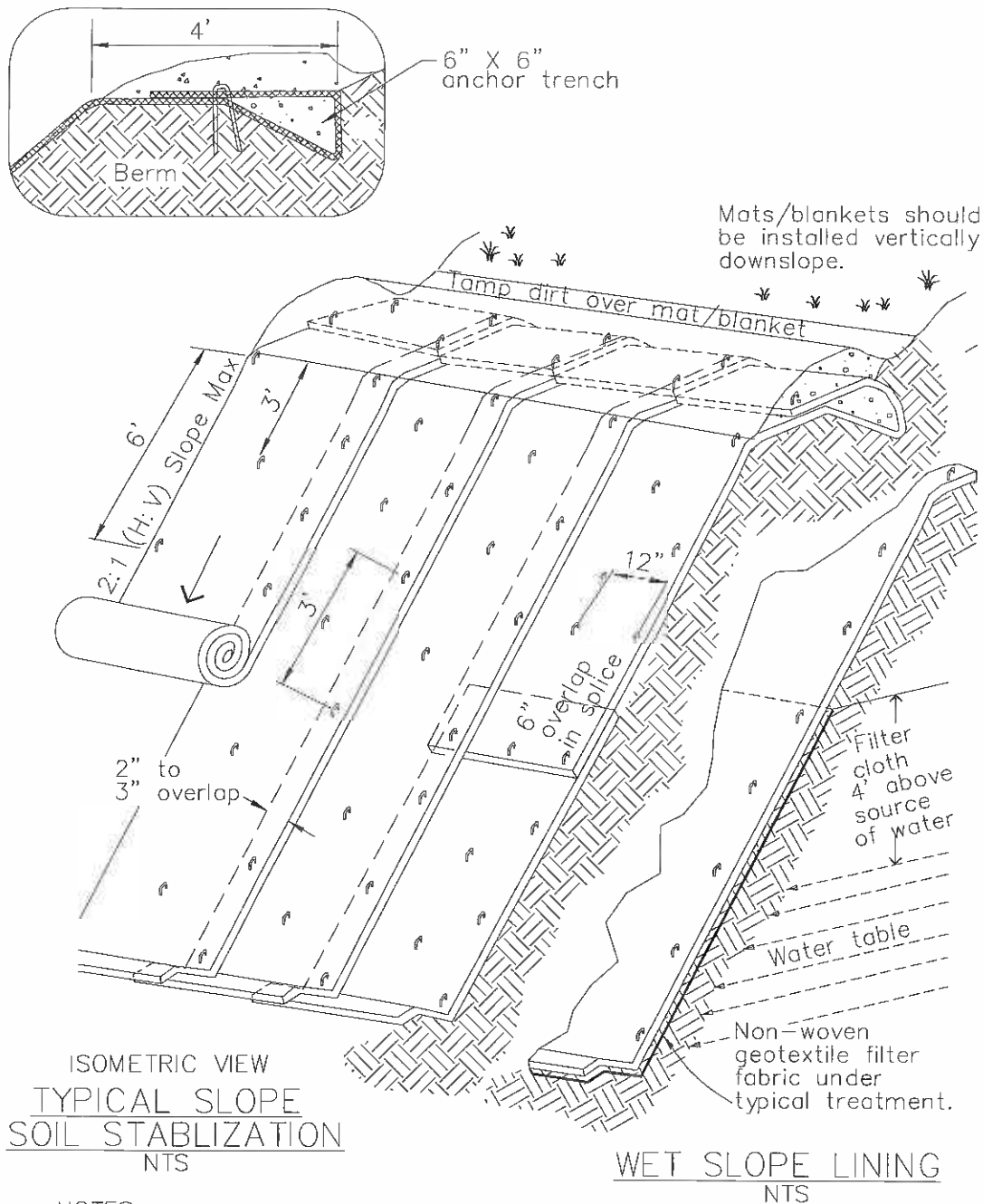
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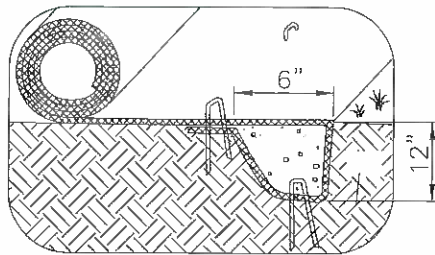
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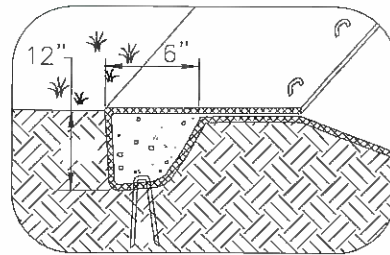
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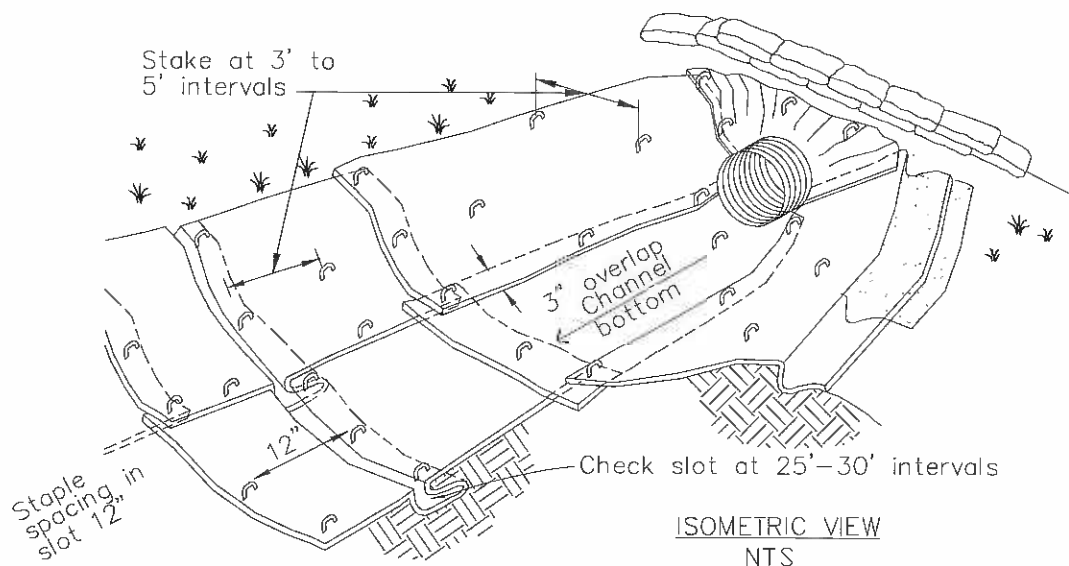
TYPICAL INSTALLATION DETAIL



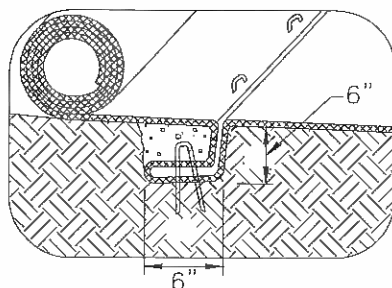
INITIAL CHANNEL ANCHOR TRENCH
NTS



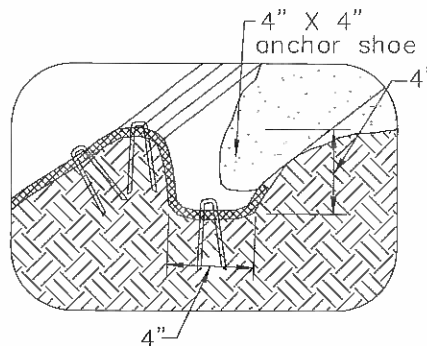
TERMINAL SLOPE AND CHANNEL
ANCHOR TRENCH
NTS



ISOMETRIC VIEW
NTS



INTERMITTENT CHECK SLOT
NTS

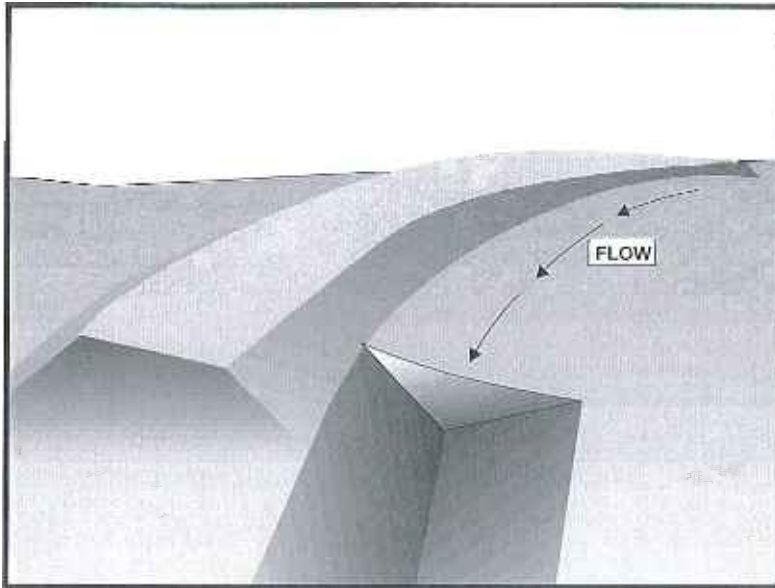


LONGITUDINAL ANCHOR TRENCH
NTS

NOTES:

1. Check slots to be constructed per manufacturers specifications.
2. Staking or stapling layout per manufacturers specifications.
3. Install per manufacturer's recommendations

TYPICAL INSTALLATION DETAIL



Description and Purpose

An earth dike is a temporary berm or ridge of compacted soil used to divert runoff or channel water to a desired location. A drainage swale is a shaped and sloped depression in the soil surface used to convey runoff to a desired location. Earth dikes and drainage swales are used to divert off site runoff around the construction site, divert runoff from stabilized areas and disturbed areas, and direct runoff into sediment basins or traps.

Suitable Applications

Earth dikes and drainage swales are suitable for use, individually or together, where runoff needs to be diverted from one area and conveyed to another.

- Earth dikes and drainage swales may be used:
 - To convey surface runoff down sloping land
 - To intercept and divert runoff to avoid sheet flow over sloped surfaces
 - To divert and direct runoff towards a stabilized watercourse, drainage pipe or channel
 - To intercept runoff from paved surfaces
 - To intercept and divert run-on
 - Below steep grades where runoff begins to concentrate

Categories

EC	Erosion Control	<input checked="" type="checkbox"/>
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Objective
- ☐ Secondary Objective

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

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- Along roadways and facility improvements subject to flood drainage
- At the top of slopes to divert runoff from adjacent or undisturbed slopes
- At bottom and mid slope locations to intercept sheet flow and convey concentrated flows
- Divert sediment laden runoff into sediment basins or traps

Limitations

Dikes should not be used for drainage areas greater than 10 acres or along slopes greater than 10 percent. For larger areas more permanent drainage structures should be built. All drainage structures should be built in compliance with local municipal requirements.

- Earth dikes may create more disturbed area on site and become barriers to construction equipment.
- Earth dikes must be stabilized immediately, which adds cost and maintenance concerns.
- Diverted stormwater may cause downstream flood damage.
- Dikes should not be constructed of soils that may be easily eroded.
- Regrading the site to remove the dike may add additional cost.
- Temporary drains and swales or any other diversion of runoff should not adversely impact upstream or downstream properties.
- Temporary drains and swales must conform to local floodplain management requirements.
- Earth dikes/drainage swales are not suitable as sediment trapping devices.
- It may be necessary to use other soil stabilization and sediment controls such as check dams, plastics, and blankets, to prevent scour and erosion in newly graded dikes, swales, and ditches.
- Sediment accumulation, scour depressions, and/or persistent non-stormwater discharges can result in areas of standing water suitable for mosquito production in drainage swales.

Implementation

The temporary earth dike is a berm or ridge of compacted soil, located in such a manner as to divert stormwater to a sediment trapping device or a stabilized outlet, thereby reducing the potential for erosion and offsite sedimentation. Earth dikes can also be used to divert runoff from off site and from undisturbed areas away from disturbed areas and to divert sheet flows away from unprotected slopes.

An earth dike does not itself control erosion or remove sediment from runoff. A dike prevents erosion by directing runoff to an erosion control device such as a sediment trap or directing runoff away from an erodible area. Temporary diversion dikes should not adversely impact adjacent properties and must conform to local floodplain management regulations and should not be used in areas with slopes steeper than 10%.

Slopes that are formed during cut and fill operations should be protected from erosion by runoff. A combination of a temporary drainage swale and an earth dike at the top of a slope can divert runoff to a location where it can be brought to the bottom of the slope (see EC-11, Slope Drains). A combination dike and swale is easily constructed by a single pass of a bulldozer or grader and compacted by a second pass of the tracks or wheels over the ridge. Diversion structures should be installed when the site is initially graded and remain in place until post construction BMPs are installed and the slopes are stabilized.

Diversion practices concentrate surface runoff, increasing its velocity and erosive force. Thus, the flow out of the drain or swale must be directed onto a stabilized area or into a grade stabilization structure. If significant erosion will occur, a swale should be stabilized using vegetation, chemical treatment, rock rip-rap, matting, or other physical means of stabilization. Any drain or swale that conveys sediment laden runoff must be diverted into a sediment basin or trap before it is discharged from the site.

General

- Care must be applied to correctly size and locate earth dikes, drainage swales. Excessively steep, unlined dikes, and swales are subject to erosion and gully formation.
- Conveyances should be stabilized.
- Use a lined ditch for high flow velocities.
- Select flow velocity based on careful evaluation of the risks due to erosion of the measure, soil types, overtopping, flow backups, washout, and drainage flow patterns for each project site.
- Compact any fills to prevent unequal settlement.
- Do not divert runoff onto other property without securing written authorization from the property owner.
- When possible, install and utilize permanent dikes, swales, and ditches early in the construction process.
- Provide stabilized outlets.

Earth Dikes

Temporary earth dikes are a practical, inexpensive BMP used to divert stormwater runoff. Temporary diversion dikes should be installed in the following manner:

- All dikes should be compacted by earth moving equipment.
- All dikes should have positive drainage to an outlet.
- All dikes should have 2:1 or flatter side slopes, 18 in. minimum height, and a minimum top width of 24 in. Wide top widths and flat slopes are usually needed at crossings for construction traffic.

- May be covered with hydro mulch, hydroseed, wood mulch, compost blanket, or RECP for stabilization.
- The outlet from the earth dike must function with a minimum of erosion. Runoff should be conveyed to a sediment trapping device such as a Sediment Trap (SE-3) or Sediment Basin (SE-2) when either the dike channel or the drainage area above the dike are not adequately stabilized.
- Temporary stabilization may be achieved using seed and mulching for slopes less than 5% and either rip-rap or sod for slopes in excess of 5%. In either case, stabilization of the earth dike should be completed immediately after construction or prior to the first rain.
- If riprap is used to stabilize the channel formed along the toe of the dike, the following typical specifications apply:

Channel Grade	Riprap Stabilization
0.5-1.0%	4 in. Rock
1.1-2.0%	6 in. Rock
2.1-4.0%	8 in. Rock
4.1-5.0%	8 in. -12 in. Riprap

- The stone riprap, recycled concrete, etc. used for stabilization should be pressed into the soil with construction equipment.
- Filter cloth may be used to cover dikes in use for long periods.
- Construction activity on the earth dike should be kept to a minimum.

Drainage Swales

Drainage swales are only effective if they are properly installed. Swales are more effective than dikes because they tend to be more stable. The combination of a swale with a dike on the downhill side is the most cost-effective diversion.

Standard engineering design criteria for small open channel and closed conveyance systems should be used (see the local drainage design manual). Unless local drainage design criteria state otherwise, drainage swales should be designed as follows:

- No more than 5 acres may drain to a temporary drainage swale.
- Place drainage swales above or below, not on, a cut or fill slope.
- Swale bottom width should be at least 2 ft.
- Depth of the swale should be at least 18 in.
- Side slopes should be 2:1 or flatter.
- Drainage or swales should be laid at a grade of at least 1 %, but not more than 15 %.

- The swale must not be overtopped by the peak discharge from a 10-year storm, irrespective of the design criteria stated above.
- Remove all trees, stumps, obstructions, and other objectionable material from the swale when it is built.
- Compact any fill material along the path of the swale.
- Stabilize all swales immediately. Seed and mulch swales at a slope of less than 5 % and use rip-rap or sod for swales with a slope between 5 and 15 %. For temporary swales, geotextiles and mats (EC-7) may provide immediate stabilization.
- Irrigation may be required to establish sufficient vegetation to prevent erosion.
- Do not operate construction vehicles across a swale unless a stabilized crossing is provided.
- Permanent drainage facilities must be designed by a professional engineer (see the local drainage design criteria for proper design).
- At a minimum, the drainage swale should conform to predevelopment drainage patterns and capacities.
- Construct the drainage swale with a positive grade to a stabilized outlet.
- Provide erosion protection or energy dissipation measures if the flow out of the drainage swale can reach an erosive velocity.

Costs

- Cost ranges from \$19 to \$70 per ft. for both earthwork and stabilization and depends on availability of material, site location, and access (Adjusted for inflation (2016 dollars) by Tetra Tech, Inc.).
- Small dikes: \$3 - \$8/linear ft.; Large dikes: \$3/yd³ (Adjusted for inflation (2016 dollars) by Tetra Tech, Inc.).
- The cost of a drainage swale increases with drainage area and slope. Typical swales for controlling internal erosion are inexpensive, as they are quickly formed during routine earthwork.

Inspection and Maintenance

- Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Inspect ditches and berms for washouts. Replace lost riprap, damaged linings or soil stabilizers as needed.

- Inspect channel linings, embankments, and beds of ditches and berms for erosion and accumulation of debris and sediment. Remove debris and sediment and repair linings and embankments as needed.
- Temporary conveyances should be completely removed as soon as the surrounding drainage area has been stabilized or at the completion of construction

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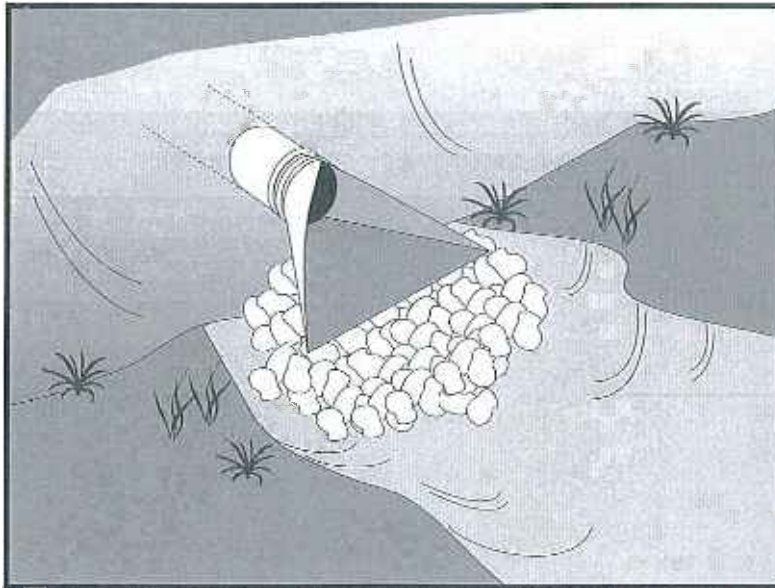
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Stormwater Management of the Puget Sound Basin, Technical Manual, Publication #91-75, Washington State Department of Ecology, February 1992.

Water Quality Management Plan for the Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency, November 1988.



Description and Purpose

Outlet protection is a physical device composed of rock, grouted riprap, or concrete rubble, which is placed at the outlet of a pipe or channel to prevent scour of the soil caused by concentrated, high velocity flows.

Suitable Applications

Whenever discharge velocities and energies at the outlets of culverts, conduits, or channels are sufficient to erode the next downstream reach. This includes temporary diversion structures to divert runoff during construction.

- These devices may be used at the following locations:
 - Outlets of pipes, drains, culverts, slope drains, diversion ditches, swales, conduits, or channels.
 - Outlets located at the bottom of mild to steep slopes.
 - Discharge outlets that carry continuous flows of water.
 - Outlets subject to short, intense flows of water, such as flash floods.
 - Points where lined conveyances discharge to unlined conveyances

Limitations

- Large storms or high flows can wash away the rock outlet protection and leave the area susceptible to erosion.

Categories

EC	Erosion Control	<input checked="" type="checkbox"/>
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

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- Sediment captured by the rock outlet protection may be difficult to remove without removing the rock.
- Outlet protection may negatively impact the channel habitat.
- Grouted riprap may break up in areas of freeze and thaw.
- If there is not adequate drainage, and water builds up behind grouted riprap, it may cause the grouted riprap to break up due to the resulting hydrostatic pressure.
- Sediment accumulation, scour depressions, and/or persistent non-stormwater discharges can result in areas of standing water suitable for mosquito production in velocity dissipation devices.

Implementation

General

Outlet protection is needed where discharge velocities and energies at the outlets of culverts, conduits or channels are sufficient to erode the immediate downstream reach. This practice protects the outlet from developing small eroded pools (plunge pools) and protects against gully erosion resulting from scouring at a culvert mouth.

Design and Layout

As with most channel design projects, depth of flow, roughness, gradient, side slopes, discharge rate, and velocity should be considered in the outlet design. Compliance to local and state regulations should also be considered while working in environmentally sensitive streambeds. General recommendations for rock size and length of outlet protection mat are shown in the rock outlet protection figure in this BMP and should be considered minimums. The apron length and rock size gradation are determined using a combination of the discharge pipe diameter and estimate discharge rate: Select the longest apron length and largest rock size suggested by the pipe size and discharge rate. Where flows are conveyed in open channels such as ditches and swales, use the estimated discharge rate for selecting the apron length and rock size. Flows should be same as the culvert or channel design flow but never the less than the peak 5-year flow for temporary structures planned for one rainy season, or the 10-year peak flow for temporary structures planned for two or three rainy seasons.

- There are many types of energy dissipaters, with rock being the one that is represented in the attached figure.
- Best results are obtained when sound, durable, and angular rock is used.
- Install riprap, grouted riprap, or concrete apron at selected outlet. Riprap aprons are best suited for temporary use during construction. Grouted or wired tied rock riprap can minimize maintenance requirements.
- Rock outlet protection is usually less expensive and easier to install than concrete aprons or energy dissipaters. It also serves to trap sediment and reduce flow velocities.
- Carefully place riprap to avoid damaging the filter fabric.

- Stone 4 in. to 6 in. may be carefully dumped onto filter fabric from a height not to exceed 12 in.
 - Stone 8 in. to 12 in. must be hand placed onto filter fabric, or the filter fabric may be covered with 4 in. of gravel and the 8 in. to 12 in. rock may be dumped from a height not to exceed 16 in.
 - Stone greater than 12 in. shall only be dumped onto filter fabric protected with a layer of gravel with a thickness equal to one half the D_{50} rock size, and the dump height limited to twice the depth of the gravel protection layer thickness.
- For proper operation of apron: Align apron with receiving stream and keep straight throughout its length. If a curve is needed to fit site conditions, place it in upper section of apron.
 - Outlets on slopes steeper than 10 percent should have additional protection.

Costs

Costs are low if material is readily available. If material is imported, costs will be higher. Average installed cost is \$250 per device.

Inspection and Maintenance

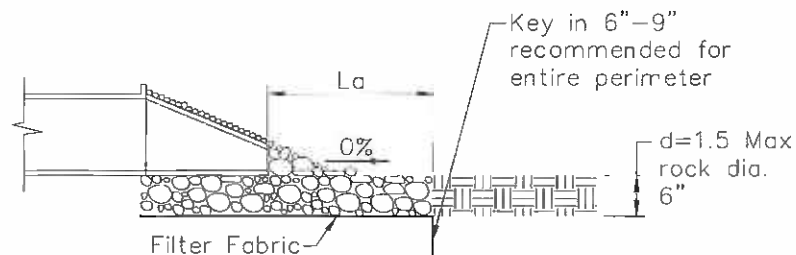
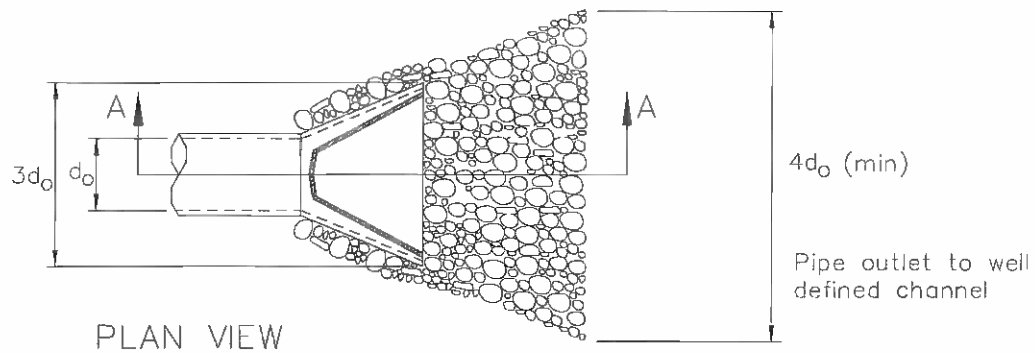
- Inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subjected to non-stormwater discharges daily while non-stormwater discharges occur. Minimize areas of standing water by removing sediment blockages and filling scour depressions.
- Inspect apron for displacement of the riprap and damage to the underlying fabric. Repair fabric and replace riprap that has washed away. If riprap continues to wash away, consider using larger material.
- Inspect for scour beneath the riprap and around the outlet. Repair damage to slopes or underlying filter fabric immediately.
- Temporary devices should be completely removed as soon as the surrounding drainage area has been stabilized or at the completion of construction.

References

County of Sacramento Improvement Standards, Sacramento County, May 1989.

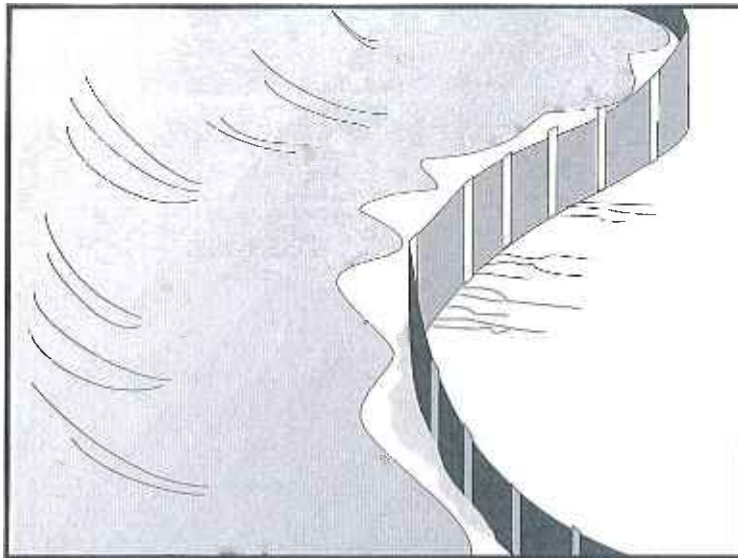
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Pipe Diameter inches	Discharge ft ³ /s	Apron Length, L _a ft	Rip Rap D ₅₀ Diameter Min inches
12	5	10	4
	10	13	6
18	10	10	6
	20	16	8
	30	23	12
	40	26	16
24	30	16	8
	40	26	8
	50	26	12
	60	30	16

For larger or higher flows consult a Registered Civil Engineer
Source: USDA - SCS



Description and Purpose

A silt fence is made of a woven geotextile that has been entrenched, attached to supporting poles, and sometimes backed by a plastic or wire mesh for support. The silt fence detains water, promoting sedimentation of coarse sediment behind the fence. Silt fence does not retain soil fine particles like clays or silts.

Suitable Applications

Silt fences are suitable for perimeter control, placed below areas where sheet flows discharge from the site. They could also be used as interior controls below disturbed areas where runoff may occur in the form of sheet and rill erosion and around inlets within disturbed areas (Storm Drain Inlet Protection, SE-10). Silt fences should not be used in locations where the flow is concentrated. Silt fences should always be used in combination with erosion controls. Suitable applications include:

- At perimeter of a project (although they should not be installed up and down slopes).
- Below the toe or down slope of exposed and erodible slopes.
- Along streams and channels.
- Around temporary spoil areas and stockpiles.
- Around inlets.
- Below other small cleared areas.

Categories

EC	Erosion Control	
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ **Primary Category**
- ☒ **Secondary Category**

Targeted Constituents

Sediment (coarse sediment)	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

- SE-5 Fiber Rolls
- SE-6 Gravel Bag Berm SE-12
- Manufactured Linear Sediment Controls
- SE-13 Compost Socks and Berms
- SE-14 Biofilter Bags

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Limitations

- Do not use in streams, channels, drain inlets, or anywhere flow is concentrated.
- Do not use in locations where ponded water may cause a flooding hazard.
- Do not use silt fence to divert water flows or place across any contour line.
- Improperly installed fences are subject to failure from undercutting, overtopping, or collapsing.
- Must be trenched and keyed in.
- According to the State Water Board's *CGP Review, Issue #2* (2014), silt fences reinforced with metal or plastic mesh should be avoided due to plastic pollution and wildlife concerns.
- Not intended for use as a substitute for Fiber Rolls (SE-5), when fiber rolls are being used as a slope interruption device.
- Do not use on slopes subject to creeping, slumping, or landslides.

Implementation

General

A silt fence is a temporary sediment barrier consisting of woven geotextile stretched across and attached to supporting posts, trenched-in, and, depending upon the strength of fabric used, supported with plastic or wire mesh fence. Silt fences trap coarse sediment by intercepting and detaining sediment-laden runoff from disturbed areas in order to promote sedimentation behind the fence.

The following layout and installation guidance can improve performance and should be followed:

- Silt fence should be used in combination with erosion controls up-slope in order to provide the most effective sediment control.
- Silt fence alone is not effective at reducing turbidity. (Barrett and Malina, 2004)
- Designers should consider diverting sediment laden water to a temporary sediment basin or trap. (EPA, 2012)
- Use principally in areas where sheet flow occurs.
- Install along a level contour, so water does not pond more than 1.5 ft. at any point along the silt fence.
- Provide sufficient room for runoff to pond behind the fence and to allow sediment removal equipment to pass between the silt fence and toes of slopes or other obstructions. About 1200 ft.² of ponding area should be provided for every acre draining to the fence.
- Efficiency of silt fences is primarily dependent on the detention time of the runoff behind the control. (Barrett and Malina, 2004)

- The drainage area above any fence should not exceed a quarter of an acre. (Rule of Thumb-100-feet of silt fence per 10,000 ft.² of disturbed area.) (EPA, 2012)
- The maximum length of slope draining to any point along the silt fence should be 100 ft. per ft of silt fence.
- Turn the ends of the filter fence uphill to prevent stormwater from flowing around the fence.
- Leave an undisturbed or stabilized area immediately down slope from the fence where feasible.
- Silt fences should remain in place until the disturbed area draining to the silt fence is permanently stabilized, after which, the silt fence fabric and posts should be removed and properly disposed.
- J-hooks, which have ends turning up the slope to break up long runs of fence and provide multiple storage areas that work like mini-retention areas, may be used to increase the effectiveness of silt fence.
- Be aware of local regulations regarding the type and installation requirements of silt fence, which may differ from those presented in this fact sheet.

Design and Layout

In areas where high winds are anticipated the fence should be supported by a plastic or wire mesh. The geotextile fabric of the silt fence should contain ultraviolet inhibitors and stabilizers to provide longevity equivalent to the project life or replacement schedule.

- Layout in accordance with the attached figures.
- For slopes that contain a high number of rocks or large dirt clods that tend to dislodge, it may be necessary to protect silt fence from rocks (e.g., rockfall netting) ensure the integrity of the silt fence installation.

Standard vs. Heavy Duty Silt Fence

Standard Silt Fence

- Generally applicable in cases where the area draining to fence produces moderate sediment loads.

Heavy Duty Silt Fence

- Heavy duty silt fence usually has 1 or more of the following characteristics, not possessed by standard silt fence.
 - Fabric is reinforced with wire backing or additional support.
 - Posts are spaced closer than pre-manufactured, standard silt fence products.
- Use is generally limited to areas affected by high winds.
- Area draining to fence produces moderate sediment loads.

Materials

Standard Silt Fence

- Silt fence material should be woven geotextile with a minimum width of 36 in. The fabric should conform to the requirements in ASTM designation D6461.

- Wooden stakes should be commercial quality lumber of the size and shape shown on the plans. Each stake should be free from decay, splits or cracks longer than the thickness of the stake or other defects that would weaken the stakes and cause the stakes to be structurally unsuitable.
- Staples used to fasten the fence fabric to the stakes should be not less than 1.75 in. long and should be fabricated from 15-gauge or heavier wire. The wire used to fasten the tops of the stakes together when joining two sections of fence should be 9 gauge or heavier wire. Galvanizing of the fastening wire will not be required.

Heavy-Duty Silt Fence

- Some silt fence has a wire backing to provide additional support, and there are products that may use prefabricated plastic holders for the silt fence and use metal posts instead of wood stakes.

Installation Guidelines – Traditional Method

Silt fences are to be constructed on a level contour. Sufficient area should exist behind the fence for ponding to occur without flooding or overtopping the fence.

- A trench should be excavated approximately 6 in. wide and 6 in. deep along the line of the proposed silt fence (trenches should not be excavated wider or deeper than necessary for proper silt fence installation).
- Bottom of the silt fence should be keyed-in a minimum of 12 in.
- Posts should be spaced a maximum of 6 ft. apart and driven securely into the ground a minimum of 18 in. or 12 in. below the bottom of the trench.
- When standard strength geotextile is used, a plastic or wire mesh support fence should be fastened securely to the upslope side of posts using heavy-duty wire staples at least 1 in. long. The mesh should extend into the trench.
- When extra-strength geotextile and closer post spacing are used, the mesh support fence may be eliminated.
- Woven geotextile should be purchased in a long roll, then cut to the length of the barrier. When joints are necessary, geotextile should be spliced together only at a support post, with a minimum 6 in. overlap and both ends securely fastened to the post.
- The trench should be backfilled with native material and compacted.
- Construct the length of each reach so that the change in base elevation along the reach does not exceed $\frac{1}{3}$ the height of the barrier; in no case should the reach exceed 500 ft.
- Cross barriers should be a minimum of $\frac{1}{3}$ and a maximum of $\frac{1}{2}$ the height of the linear barrier.
- See typical installation details at the end of this fact sheet.

Installation Guidelines - Static Slicing Method

- Static Slicing is defined as insertion of a narrow blade pulled behind a tractor, similar to a plow blade, at least 10 in. into the soil while at the same time pulling silt geotextile fabric into the ground through the opening created by the blade to the depth of the blade. Once the geotextile is installed, the soil is compacted using tractor tires.
- This method will not work with pre-fabricated, wire backed silt fence.
- Benefits:
 - Ease of installation (most often done with a 2-person crew).
 - Minimal soil disturbance.
 - Better level of compaction along fence, less susceptible to undercutting
 - Uniform installation.
- Limitations:
 - Does not work in shallow or rocky soils.
 - Complete removal of geotextile material after use is difficult.
 - Be cautious when digging near potential underground utilities.

Costs

- It should be noted that costs vary greatly across regions due to available supplies and labor costs.
- Average annual cost for installation using the traditional silt fence installation method (assumes 6 month useful life) is \$7 per linear foot based on vendor research. Range of cost is \$3.50 - \$9.10 per linear foot.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Repair undercut silt fences.
- Repair or replace split, torn, slumping, or weathered fabric. The lifespan of silt fence fabric is generally 5 to 8 months.
- Silt fences that are damaged and become unsuitable for the intended purpose should be removed from the site of work, disposed, and replaced with new silt fence barriers.
- Sediment that accumulates in the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches 1/3 of the barrier height.

- Silt fences should be left in place until the upgradient area is permanently stabilized. Until then, the silt fence should be inspected and maintained regularly.
- Remove silt fence when upgradient areas are stabilized. Fill and compact post holes and anchor trench, remove sediment accumulation, grade fence alignment to blend with adjacent ground, and stabilize disturbed area.

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Monitoring Data on Effectiveness of Sediment Control Techniques, Proceedings of World Water and Environmental Resources Congress, Barrett M. and Malina J. 2004.

National Management Measures to Control Nonpoint Source Pollution from Urban Areas, United States Environmental Protection Agency, 2002.

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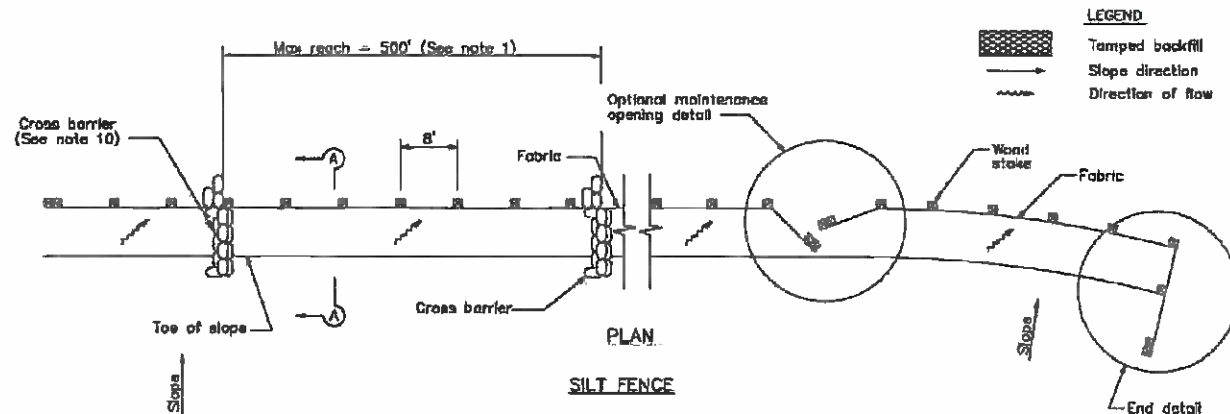
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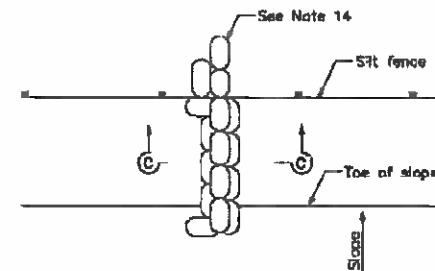
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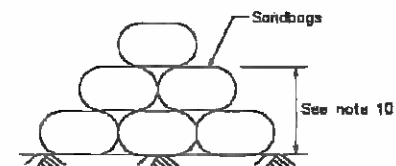


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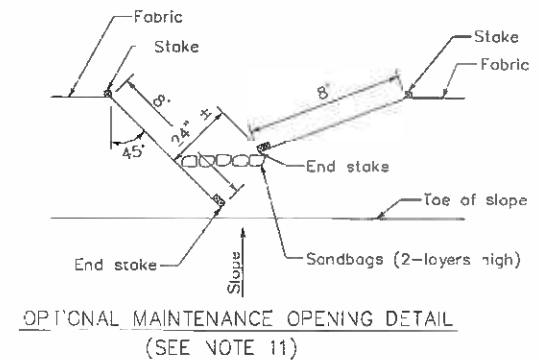
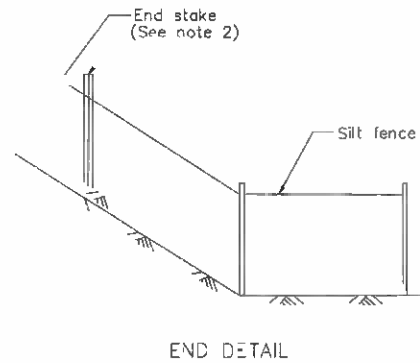
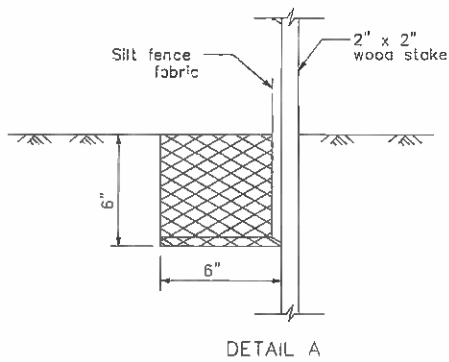
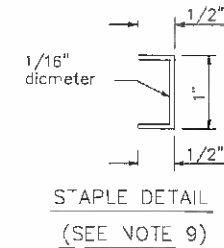
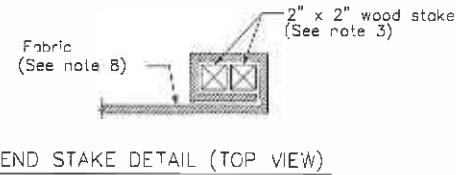
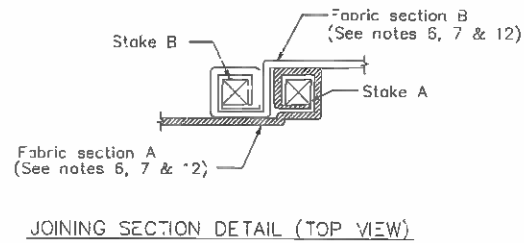
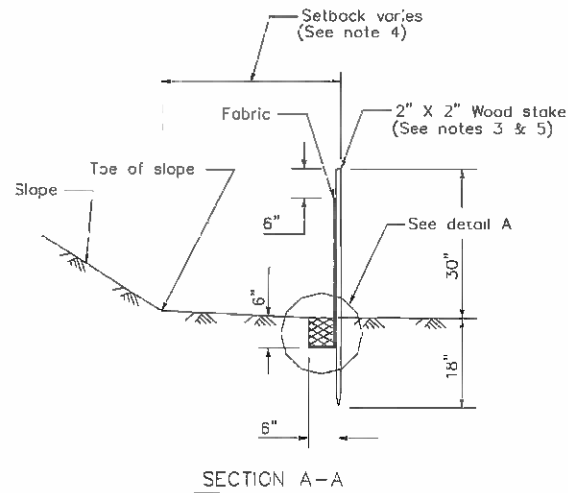
1. Construct the length of each reach so that the change in base elevation along the reach does not exceed 1/3 the height of the linear barrier; in no case shall the reach length exceed 500'.
2. The last 5'-0" of fence shall be turned up slope.
3. Stake dimensions are nominal.
4. Dimension may vary to fit field condition.
5. Stakes shall be spaced at 8'-0" maximum and shall be positioned on downstream side of fence.
6. Stakes to overlap and hence fabric to fold around each stake one full turn. Secure fabric to stake with 4 staples.
7. Stakes shall be driven tightly together to prevent potential flow-through of sediment at joint. The tops of the stakes shall be secured with wire.
8. For end stake, fence fabric shall be folded around two stakes one full turn and secured with 4 staples.
9. Minimum 4 staples per stake. Dimensions shown are typical.
10. Cross barriers shall be a minimum of 1/3 and a maximum of 1/2 the height of the linear barrier.
11. Maintenance openings shall be constructed in a manner to ensure sediment remains behind silt fence.
12. Joining sections shall not be placed at sump locations.
13. Sandbag rows and layers shall be offset to eliminate gaps.
14. Add 3-4 bags to cross barrier on downgradient side of silt fence as needed to prevent bypass or undermining and as allowable based on site limits of disturbance.

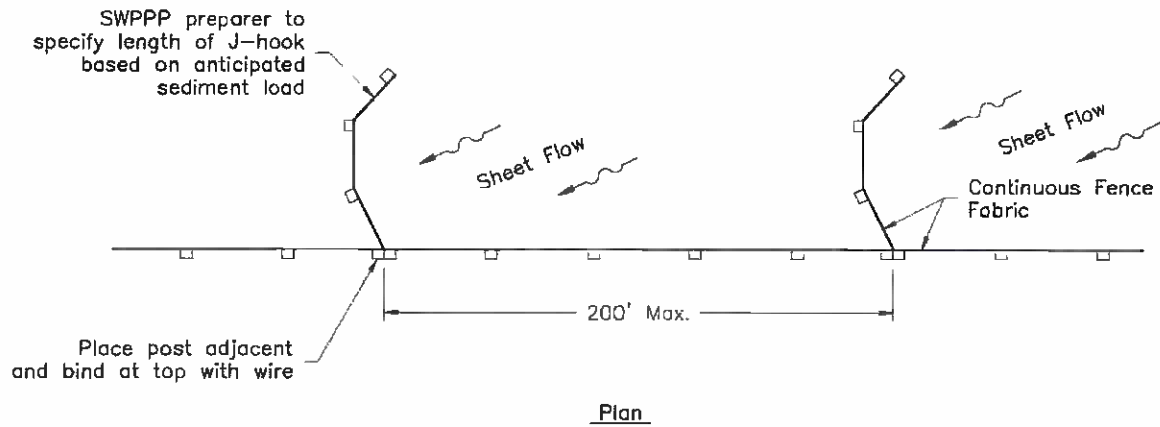


CROSS BARRIER DETAIL

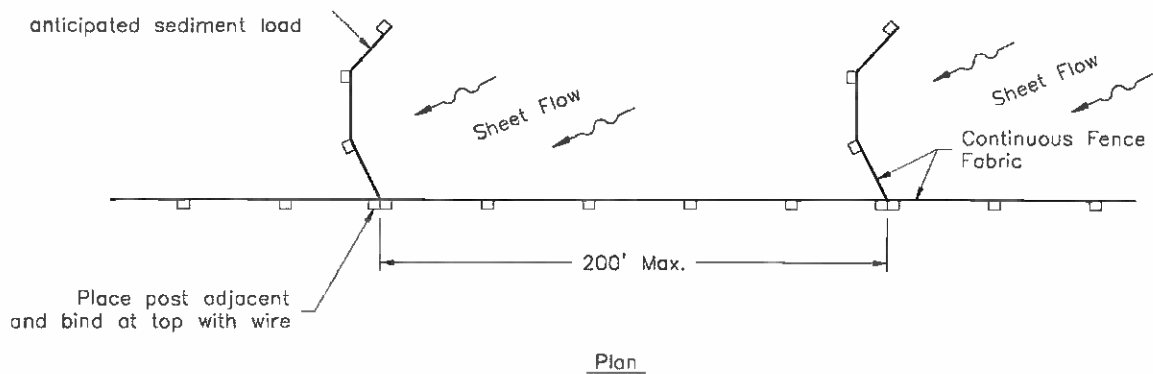


SECTION C-C

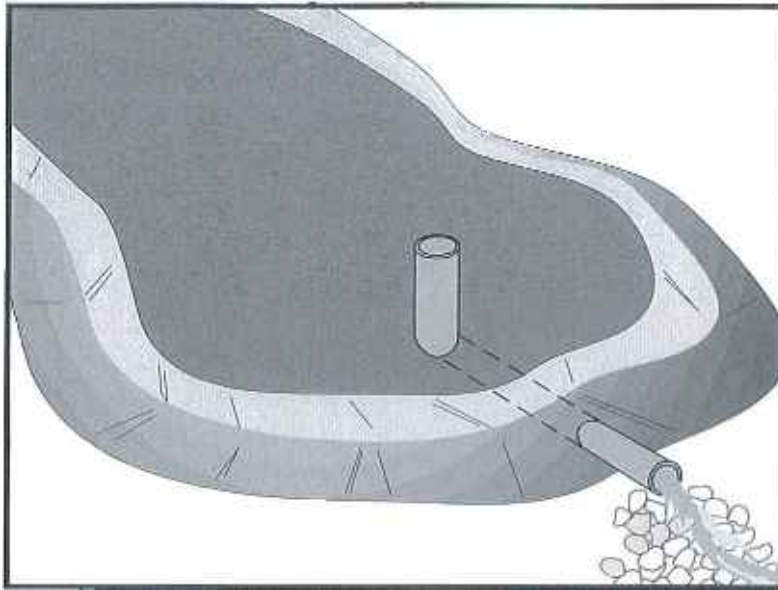




J-HOOK



J-HOOK



Description and Purpose

A sediment basin is a temporary basin formed by excavation or by constructing an embankment so that sediment-laden runoff is temporarily detained under quiescent conditions, allowing sediment to settle out before the runoff is released.

Sediment basin design guidance presented in this fact sheet is intended to provide options, methods, and techniques to optimize temporary sediment basin performance and basin sediment removal. Basin design guidance provided in this fact sheet is not intended to guarantee basin effluent compliance with numeric discharge limits (numeric action levels or numeric effluent limits for turbidity). Compliance with discharge limits requires a thoughtful approach to comprehensive BMP planning, implementation, and maintenance. Therefore, optimally designed and maintained sediment basins should be used in conjunction with a comprehensive system of BMPs that includes:

- Diverting runoff from undisturbed areas away from the basin
- Erosion control practices to minimize disturbed areas on-site and to provide temporary stabilization and interim sediment controls (e.g., stockpile perimeter control, check dams, perimeter controls around individual lots) to reduce the basin's influent sediment concentration.

At some sites, sediment basin design enhancements may be required to adequately remove sediment. Traditional

Categories

EC	Erosion Control	
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	<input checked="" type="checkbox"/>
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-3 Sediment Trap (for smaller areas)

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(a.k.a. “physical”) enhancements such as alternative outlet configurations or flow deflection baffles increase detention time and other techniques such as outlet skimmers preferentially drain flows with lower sediment concentrations. These “physical” enhancement techniques are described in this fact sheet. To further enhance sediment removal particularly at sites with fine soils or turbidity sensitive receiving waters, some projects may need to consider implementing Active Treatment Systems (ATS) whereby coagulants and flocculants are used to enhance settling and removal of suspended sediments. Guidance on implementing ATS is provided in SE-11.

Suitable Applications

Sediment basins may be suitable for use on larger projects with sufficient space for constructing the basin. Sediment basins should be considered for use:

- Where sediment-laden water may enter the drainage system or watercourses
- On construction projects with disturbed areas during the rainy season
- At the outlet of disturbed watersheds between 5 acres and 75 acres and evaluated on a site by site basis
- Where post construction detention basins are required
- In association with dikes, temporary channels, and pipes used to convey runoff from disturbed areas

Limitations

Sediment basins must be installed only within the property limits and where failure of the structure will not result in loss of life, damage to homes or buildings, or interruption of use or service of public roads or utilities. In addition, sediment basins are attractive to children and can be very dangerous. Local ordinances regarding health and safety must be adhered to. If fencing of the basin is required, the type of fence and its location should be shown in the SWPPP and in the construction specifications.

- As a general guideline, sediment basins are suitable for drainage areas of 5 acres or more, but not appropriate for drainage areas greater than 75 acres. However, the tributary area should be evaluated on a site by site basis.
- Sediment basins may become an “attractive nuisance” and care must be taken to adhere to all safety practices. If safety is a concern, basin may require protective fencing.
- Sediment basins designed according to this fact sheet are only effective in removing sediment down to about the silt size fraction. Sediment-laden runoff with smaller size fractions (fine silt and clay) may not be adequately treated unless chemical (or other appropriate method) treatment is used in addition to the sediment basin.
- Basins with a height of 25 ft or more or an impounding capacity of 50 ac-ft or more must obtain approval from California Department of Water Resources Division of Safety of Dams (<http://www.water.ca.gov/damsafety/>).

- Water that stands in sediment basins longer than 96 hours may become a source of mosquitoes (and midges), particularly along perimeter edges, in shallow zones, in scour or below-grade pools, around inlet pipes, along low-flow channels, and among protected habitats created by emergent or floating vegetation (e.g. cattails, water hyacinth), algal mats, riprap, etc.
- Basins require large surface areas to permit settling of sediment. Size may be limited by the available area.

Implementation

General

A sediment basin is a controlled stormwater release structure formed by excavation or by construction of an embankment of compacted soil across a drainage way, or other suitable location. It is intended to trap sediment before it leaves the construction site. The basin is a temporary measure expected to be used during active construction in most cases and is to be maintained until the site area is permanently protected against erosion or a permanent detention basin is constructed.

Sediment basins are suitable for nearly all types of construction projects. Whenever possible, construct the sediment basins before clearing and grading work begins. Basins should be located at the stormwater outlet from the site but not in any natural or undisturbed stream. A typical application would include temporary dikes, pipes, and/or channels to convey runoff to the basin inlet.

Many development projects in California are required by local ordinances to provide a stormwater detention basin for post-construction flood control, desilting, or stormwater pollution control. A temporary sediment basin may be constructed by rough grading the post-construction control basins early in the project.

Sediment basins if properly designed and maintained can trap a significant amount of the sediment that flows into them. However, traditional basins do not remove all inflowing sediment. Therefore, they should be used in conjunction with erosion control practices such as temporary seeding, mulching, diversion dikes, etc., to reduce the amount of sediment flowing into the basin.

Planning

To improve the effectiveness of the basin, it should be located to intercept runoff from the largest possible amount of disturbed area. Locations best suited for a sediment basin are generally in lower elevation areas of the site (or basin tributary area) where site drainage would not require significant diversion or other means to direct water to the basin but outside jurisdictional waterways. However, as necessary, drainage into the basin can be improved by the use of earth dikes and drainage swales (see BMP EC-9). The basin should not be located where its failure would result in the loss of life or interruption of the use or service of public utilities or roads.

Construct before clearing and grading work begins when feasible.

- Do not locate the basin in a jurisdictional stream.

- Basin sites should be located where failure of the structure will not cause loss of life, damage to homes or buildings, or interruption of use or service of public roads or utilities.
- Basins with a height of 25 ft or more or an impounding capacity of 50 ac-ft must obtain approval from the Division of Dam Safety. Local dam safety requirements may be more stringent.
- Limit the contributing area to the sediment basin to only the runoff from the disturbed soil areas. Use temporary concentrated flow conveyance controls to divert runoff from undisturbed areas away from the sediment basin.
- The basin should be located: (1) by excavating a suitable area or where a low embankment can be constructed across a swale, (2) where post-construction (permanent) detention basins will be constructed, and (3) where the basins can be maintained on a year-round basis to provide access for maintenance, including sediment removal and sediment stockpiling in a protected area, and to maintain the basin to provide the required capacity.

Design

When designing a sediment basin, designers should evaluate the site constraints that could affect the efficiency of the BMP. Some of these constraints include: the relationship between basin capacity, anticipated sediment load, and freeboard, available footprint for the basin, maintenance frequency and access, and hydraulic capacity and efficiency of the temporary outlet infrastructure. Sediment basins should be designed to maximize sediment removal and to consider sediment load retained by the basin as it affects basin performance.

Three Basin Design Options (Part A) are presented below along with a Typical Sediment/Detention Basin Design Methodology (Part B). Regardless of the design option that is selected, designers also need to evaluate the sediment basin capacity with respect to sediment accumulation (See “*Step 3. Evaluate the Capacity of the Sediment Basin*”) and should incorporate approaches identified in “*Step 4. Other Design Considerations*” to enhance basin performance.

A) Basin Design Options:

Option 1:

Design sediment basin(s) using the standard equation:

$$A_s = \frac{1.2Q}{V_s} \quad (\text{Eq. 1})$$

Where:

A_s = Minimum surface area for trapping soil particles of a certain size

V_s = Settling velocity of the design particle size chosen ($V_s = 0.00028$ ft/s for a design particle size of 0.01 mm at 68°F)

1.2 = Factor of safety recommended by USEPA to account for the reduction in basin efficiency caused due to turbulence and other non ideal conditions.

$$Q = CIA \quad (\text{Eq. 2})$$

Where

Q = Peak basin influent flow rate measured in cubic feet per second (ft³/s)

C = Runoff coefficient (unitless)

I = Peak rainfall intensity for the 10-year, 6-hour rain event (in/hr)

A = Area draining into the sediment basin in acres

The design particle size should be the smallest soil grain size determined by wet sieve analysis, or the fine silt sized (0.01 mm [or 0.0004 in.]) particle, and the Vs used should be 100 percent of the calculated settling velocity.

This sizing basin method is dependent on the outlet structure design or the total basin length with an appropriate outlet. If the designer chooses to utilize the outlet structure to control the flow duration in the basin, the basin length (distance between the inlet and the outlet) should be a minimum of twice the basin width; the depth should not be less than 3 ft nor greater than 5 ft for safety reasons and for maximum efficiency (2 ft of sediment storage, 2 ft of capacity). If the designer chooses to utilize the basin length (with appropriate basin outlet) to control the flow duration in the basin, the basin length (distance between the inlet and the outlet) should be a specifically designed to capture 100% of the design particle size; the depth should not be less than 3 ft nor greater than 5 ft for safety reasons and for maximum efficiency (2 ft of sediment storage, 2 ft of capacity).

Basin design guidance provided herein assumes standard water properties (e.g., estimated average water temperature, kinematic viscosity, etc.) as a basis of the design. Designers can use an alternative design (Option 3) with site specific water properties as long as the design is as protective as Option 1.

The design guidance uses the peak influent flow rate to size sediment basins. Designers can use an alternative design (Option 3) with site specific average flow rates as long as the design is as protective as Option 1.

The basin should be located on the site where it can be maintained on a year-round basis and should be maintained on a schedule to retain the 2 ft of capacity.

Option 2:

Design pursuant to local ordinance for sediment basin design and maintenance, provided that the design efficiency is as protective or more protective of water quality than Option 1.

Option 3:

The use of an equivalent surface area design or equation provided that the design efficiency is as protective or more protective of water quality than Option 1.

B) Typical Sediment/Detention Basin Design Methodology:

Design of a sediment basin requires the designer to have an understanding of the site constraints, knowledge of the local soil (e.g., particle size distribution of potentially contributing soils), drainage area of the basin, and local hydrology. Designers should not assume that a sediment basin for location A is applicable to location B. Therefore, designers can use this factsheet as guidance but will need to apply professional judgment and knowledge of the site to design an effective and efficient sediment basin. The following provides a general overview of typical design methodologies:

Step 1. Hydrologic Design

- Evaluate the site constraints and assess the drainage area for the sediment basin. Designers should consider on- and off-site flows as well as changes in the drainage area associated with site construction/disturbance. To minimize additional construction during the course of the project, the designer should consider identifying the maximum drainage area when calculating the basin dimensions.
- If a local hydrology manual is not available, it is recommended to follow standard rational method procedures to estimate the flow rate. The references section of this factsheet provides a reference to standard hydrology textbooks that can provide standard methodologies. If local rainfall depths are not available, values can be obtained from standard precipitation frequency maps from NOAA (downloaded from <http://www.wrcc.dri.edu/pcpnfreq.html>).

Step 2. Hydraulic Design

- Calculate the surface area required for the sediment basin using Equation 1. In which the flow rate is estimated for a 10-yr 6-hr event using rational method procedure listed in local hydrology manual and V_s is estimated using Stokes Law presented in Equation 3.

$$V_s = 2.81d^2 \quad (\text{Eq.3})$$

Where

V_s = Settling velocity in feet per second at 68°F

d = diameter of sediment particle in millimeters (smallest soil grain size determined by wet sieve analysis or fine silt (0.01 mm [or 0.0004 in.]))

- In general, the basin outlet design requires an iterative trial and error approach that considered the maximum water surface elevation, the elevation versus volume (stage-storage) relationship, the elevation versus basin outflow (a.k.a.-discharge) relationship, and the estimated inflow hydrograph. To adequately design the basins to settle sediment, the outlet configuration and associated outflow rates can be estimated by numerous methodologies. The following provides some guidance for design the basin outlet:
 - An outlet should have more than one orifice.
 - An outlet design typically utilizes multiple horizontal rows of orifices (approximately 3 or more) with at least 2 orifices per row (see Figures 1 and 2 at the end of this fact sheet).

- Orifices can vary in shape.
- Select the appropriate orifice diameter and number of perforations per row with the objective of minimizing the number of rows while maximizing the detention time.
- The diameter of each orifice is typically a maximum of 3-4 inches and a minimum of 0.25-0.5 inches.
- If a rectangular orifice is used, it is recommended to have minimum height of 0.5 inches and a maximum height of 6 inches.
- Rows are typically spaced at three times the diameter center to center vertically with a minimum distance of approximately 4 inches on center and a maximum distance of 1 foot on center.
- To estimate the outflow rate, each row is calculated separately based on the flow through a single orifice then multiplied by the number of orifices in the row. This step is repeated for each of the rows. Once all of the orifices are estimated, the total outflow rate versus elevation (stage-discharge curve) is developed to evaluate the detention time within the basin.
- Flow through a single orifice can be estimated using an Equation 4:

$$Q = BC' A(2gH)^{0.5} \quad (\text{Eq.4})$$

Where

Q = Outflow rate in ft³/s

C' = Orifice coefficient (unitless)

A = Area of the orifice (ft²)

g = acceleration due to gravity (ft³/s)

H = Head above the orifice (ft)

B = Anticipated Blockage or clogging factor (unitless), It is dependent on anticipated sediment and debris load, trash rack configuration etc, so the value is dependent on design engineer's professional judgment and/or local requirements (B is never greater than 1 and a value of 0.5 is generally used)

- Care must be taken in the selection of orifice coefficient ("C'"); 0.60 is most often recommended and used. However, based on actual tests, Young and Graziano (1989), "Outlet Hydraulics of Extended Detention Facilities for Northern Virginia Planning District Commission", recommends the following:
 - C' = 0.66 for thin materials; where the thickness is equal to or less than the orifice diameter, or
 - C' = 0.80 when the material is thicker than the orifice diameter
- If different sizes of orifices are used along the riser then they have to be sized such that not more than 50 percent of the design storm event drains in one-third of the drawdown time (to provide adequate settling time for events smaller than the design storm event)

and the entire volume drains within 96 hours or as regulated by the local vector control agency. If a basin fails to drain within 96 hours, the basin must be pumped dry.

- Because basins are not maintained for infiltration, water loss by infiltration should be disregarded when designing the hydraulic capacity of the outlet structure.
- **Floating Outlet Skimmer:** The floating skimmer (see Figure 3 at the end of this fact sheet is an alternative outlet configuration (patented) that drains water from upper portion of the water column. This configuration has been used for temporary and permanent basins and can improve basin performance by eliminating bottom orifices which have the potential of discharging solids. Some design considerations for this alternative outlet device includes the addition of a sand filter or perforated under drain at the low point in the basin and near the floating skimmer. These secondary drains allow the basin to fully drain. More detailed guidelines for sizing the skimmer can be downloaded from <http://www.fairclothskimmer.com/>.
- **Hold and Release Valve:** An ideal sediment/detention basin would hold all flows to the design storm level for sufficient time to settle solids, and then slowly release the storm water. Implementing a reliable valve system for releasing detention basins is critical to eliminate the potential for flooding in such a system. Some variations of hold and release valves include manual valves, bladder devices or electrically operated valves. When a precipitation event is forecast, the valve would be close for the duration of the storm and appropriate settling time. When the settling duration is met (approximately 24 or 48 hours), the valve would be opened and allow the stormwater to be released at a rate that does not resuspend settled solids and in a non-erosive manner. If this type of system is used the valve should be designed to empty the entire basin within 96 hours or as stipulated by local vector control regulations.

Step 3. Evaluate the Capacity of the Sediment Basin

- Typically, sediment basins do not perform as designed when they are not properly maintained or the sediment yield to the basin is larger than expected. As part of a good sediment basin design, designers should consider maintenance cycles, estimated soil loss and/or sediment yield, and basin sediment storage volume. The two equations below can be used to quantify the amount of soil entering the basin.
- The Revised Universal Soil Loss Equation (RUSLE, Eq.5) can be used to estimate annual soil loss and the Modified Universal Soil Equation (MUSLE, Eq.6) can be used to estimate sediment yield from a single storm event.

$$A = R \times K \times LS \times C \times P \quad (\text{Eq.5})$$

$$Y = 95(Q \times q_p)^{0.56} \times K \times LS \times C \times P \quad (\text{Eq.6})$$

Where:

A = annual soil loss, tons/acre-year

R = rainfall erosion index, in 100 ft. Tons/acre.in/hr.

K = soil erodibility factor, tons/acre per unit of R

LS = slope length and steepness factor (unitless)

C = vegetative cover factor (unitless)

P = erosion control practice factor (unitless)

Y = single storm sediment yield in tons

Q = runoff volume in acre-feet

q_p = peak flow in cfs

- Detailed descriptions and methodologies for estimating the soil loss can be obtained from standard hydrology text books (See References section).
- Determination of the appropriate equation should consider construction duration and local environmental factors (soils, hydrology, etc.). For example, if a basin is planned for a project duration of 1 year and the designer specifies one maintenance cycle, RUSLE could be used to estimate the soil loss and thereby the designer could indicate that the sediment storage volume would be half of the soil loss value estimated. As an example, for use of MUSLE, a project may have a short construction duration thereby requiring fewer maintenance cycles and a reduced sediment storage volume. MUSLE would be used to estimate the anticipated soil loss based on a specific storm event to evaluate the sediment storage volume and appropriate maintenance frequency.
- The soil loss estimates are an essential step in the design, and it is essential that the designer provide construction contractors with enough information to understand maintenance frequency and/or depths within the basin that would trigger maintenance. Providing maintenance methods, frequency and specification should be included in design bid documents such as the SWPPP Site Map.
- Once the designer has quantified the amount of soil entering the basin, the depth required for sediment storage can be determined by dividing the estimated sediment loss by the surface area of the basin.

Step 4. Other Design Considerations

- Consider designing the volume of the settling zone for the total storm volume associated with the 2-year event or other appropriate design storms specified by the local agency. This volume can be used as a guide for sizing the basin without iterative routing calculations. The depth of the settling zone can be estimated by dividing the estimated 2-yr storm volume by the surface area of the basin.
- The basin volume consists of two zones:
 - A sediment storage zone at least 1 ft deep.
 - A settling zone at least 2 ft deep.

- The basin depth must be no less than 3 ft (not including freeboard).
- Proper hydraulic design of the outlet is critical to achieving the desired performance of the basin. The outlet should be designed to drain the basin within 24 to 96 hours (also referred to as “drawdown time”). The 24-hour limit is specified to provide adequate settling time; the 96-hour limit is specified to mitigate vector control concerns.
- Confirmation of the basin performance can be evaluated by routing the design storm (10-yr 6-hr, or as directed by local regulations) through the basin based on the basin volume (stage-storage curve) and the outlet design (stage-discharge curve based on the orifice configuration or equivalent outlet design).
- Sediment basins, regardless of size and storage volume, should include features to accommodate overflow or bypass flows that exceed the design storm event.
 - Include an emergency spillway to accommodate flows not carried by the principal spillway. The spillway should consist of an open channel (earthen or vegetated) over undisturbed material (not fill) or constructed of a non-erodible riprap (or equivalent protection) on fill slopes.
 - The spillway control section, which is a level portion of the spillway channel at the highest elevation in the channel, should be a minimum of 20 ft in length.
- Rock, vegetation or appropriate erosion control should be used to protect the basin inlet, outlet, and slopes against erosion.
- The total depth of the sediment basin should include the depth required for sediment storage, depth required for settling zone and freeboard of at least 1 foot or as regulated by local flood control agency for a flood event specified by the local agency.
- The basin alignment should be designed such that the length of the basin is more than twice the width of the basin; the length should be determined by measuring the distance between the inlet and the outlet. If the site topography does not allow for this configuration baffles should be installed so that the ratio is satisfied. If a basin has more than one inflow point, any inflow point that conveys more than 30 percent of the total peak inflow rate has to meet the required length to width ratio.
- An alternative basin sizing method proposed by Fifield (2004) can be consulted to estimate an alternative length to width ratio and basin configuration. These methods can be considered as part of Option 3 which allows for alternative designs that are protective or more protective of water quality.
- Baffles (see Figure 4 at the end of this fact sheet) can be considered at project sites where the existing topography or site constraints limit the length to width ratio. Baffles should be constructed of earthen berms or other structural material within the basin to divert flow in the basin, thus increasing the effective flow length from the basin inlet to the outlet riser. Baffles also reduce the change of short circuiting and allows for settling throughout the basin.

- Baffles are typically constructed from the invert of the basin to the crest of the emergency spillway (i.e., design event flows are meant to flow around the baffles and flows greater than the design event would flow over the baffles to the emergency spillway).
- Use of other materials for construction of basin baffles (such as silt fence) may not be appropriate based on the material specifications and will require frequent maintenance (maintain after every storm event). Maintenance may not be feasible when required due to flooded conditions resulting from frequent (i.e., back to back) storm events. Use of alternative baffle materials should not deviate from the intended purpose of the material, as described by the manufacturer.
- Sediment basins are best used in conjunction with erosion controls.
- Basins with an impounding levee greater than 4.5 ft tall, measured from the lowest point to the impounding area to the highest point of the levee, and basins capable of impounding more than 35,000 ft³, should be designed by a Registered Civil Engineer. The design should include maintenance requirements, including sediment and vegetation removal, to ensure continuous function of the basin outlet and bypass structures.
- A forebay, constructed upstream of the basin, may be provided to remove debris and larger particles.
- The outflow from the sediment basin should be provided with velocity dissipation devices (see BMP EC-10) to prevent erosion and scouring of the embankment and channel.
- The principal outlet should consist of a corrugated metal, high density polyethylene (HDPE), or reinforced concrete riser pipe with dewatering holes and an anti-vortex device and trash rack attached to the top of the riser, to prevent floating debris from flowing out of the basin or obstructing the system. This principal structure should be designed to accommodate the inflow design storm.
- A rock pile or rock-filled gabions can serve as alternatives to the debris screen, although the designer should be aware of the potential for extra maintenance involved should the pore spaces in the rock pile clog.
- The outlet structure should be placed on a firm, smooth foundation with the base securely anchored with concrete or other means to prevent floatation.
- Attach riser pipe (watertight connection) to a horizontal pipe (barrel). Provide anti-seep collars on the barrel.
- Cleanout level should be clearly marked on the riser pipe.

Installation

- Securely anchor and install an anti-seep collar on the outlet pipe/riser and provide an emergency spillway for passing major floods (see local flood control agency).
- Areas under embankments must be cleared and stripped of vegetation.

- Chain link fencing should be provided around each sediment basin to prevent unauthorized entry to the basin or if safety is a concern.

Costs

The cost of a sediment basin is highly variable and is dependent of the site configuration. To decrease basin construction costs, designers should consider using existing site features such as berms or depressed area to site the sediment basin. Designers should also consider potential savings associated with designing the basin to minimize the number of maintenance cycles and siting the basin in a location where a permanent BMP (e.g., extended detention basin) is required for the project site.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level and as required by local requirements. It is recommended that at a minimum, basins be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Examine basin banks for seepage and structural soundness.
- Check inlet and outlet structures and spillway for any damage or obstructions. Repair damage and remove obstructions as needed.
- Check inlet and outlet area for erosion and stabilize if required.
- Check fencing for damage and repair as needed.
- Sediment that accumulates in the basin must be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when sediment accumulation reaches one-half the designated sediment storage volume. Sediment removed during maintenance should be managed properly. The sediment should be appropriately evaluated and used or disposed of accordingly. Options include: incorporating sediment into earthwork on the site (only if there is no risk that sediment is contaminated); or off-site export/disposal at an appropriate location (e.g., sediment characterization and disposal to an appropriate landfill).
- Remove standing water from basin within 96 hours after accumulation.
- If the basin does not drain adequately (e.g., due to storms that are more frequent or larger than the design storm or other unforeseen site conditions), dewatering should be conducted in accordance with appropriate dewatering BMPs (see NS-2) and in accordance with local permits as applicable.
- To minimize vector production:
 - Remove accumulation of live and dead floating vegetation in basins during every inspection.
 - Remove excessive emergent and perimeter vegetation as needed or as advised by local or state vector control agencies.

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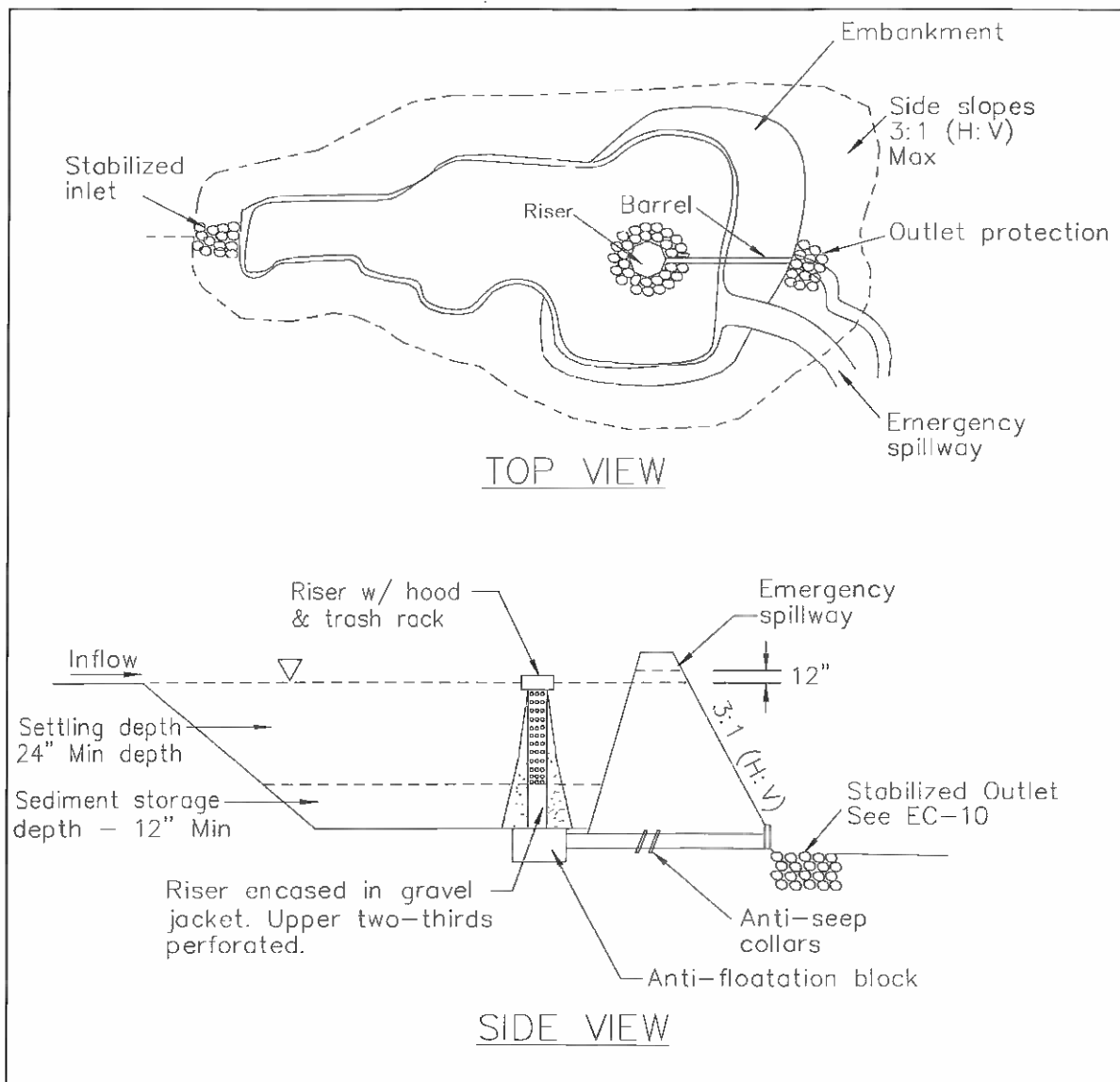
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**FIGURE 1: TYPICAL TEMPORARY SEDIMENT BASIN
MULTIPLE ORIFICE DESIGN
NOT TO SCALE**

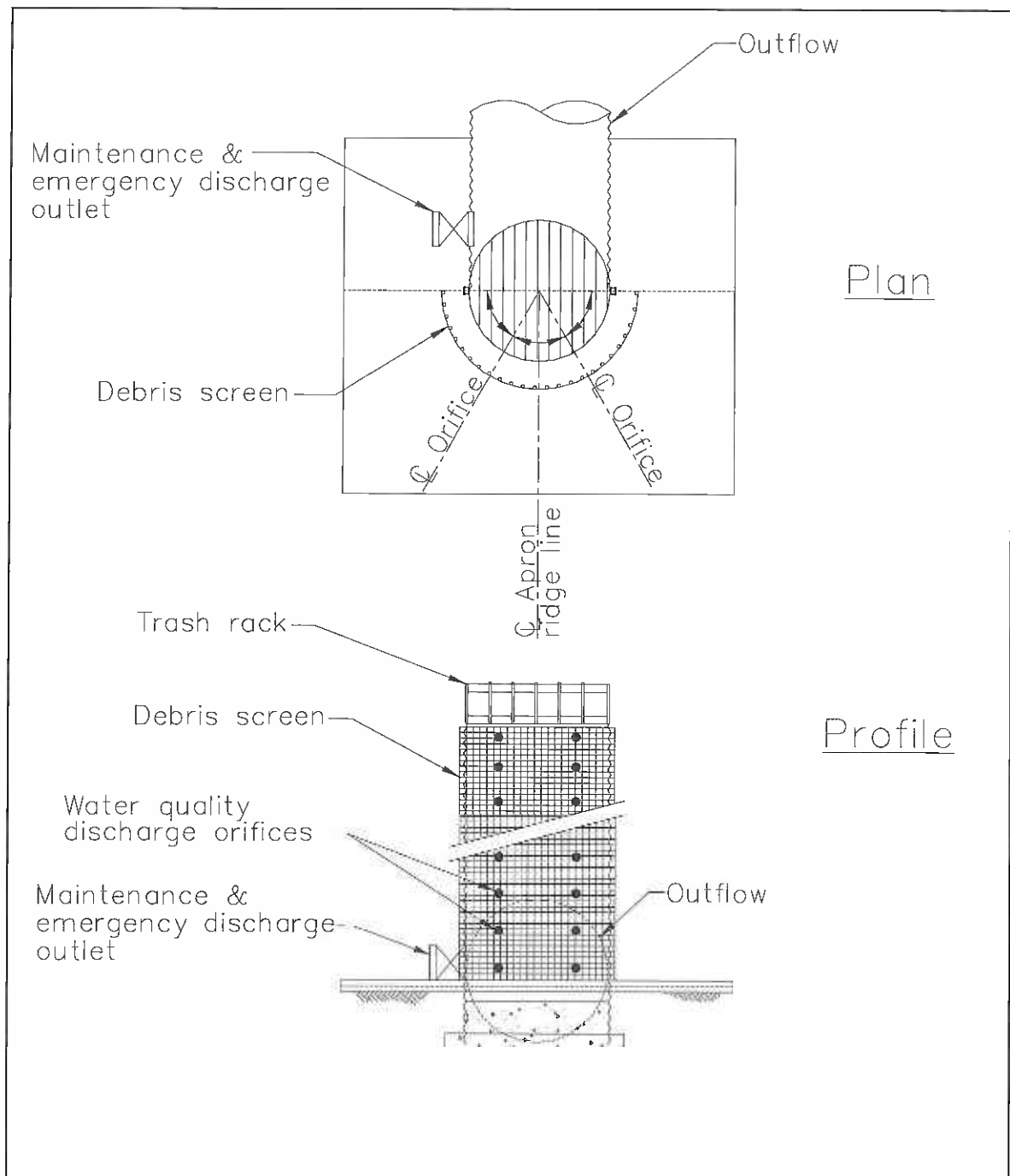


FIGURE 2: MULTIPLE ORIFICE OUTLET RISER

NOT TO SCALE

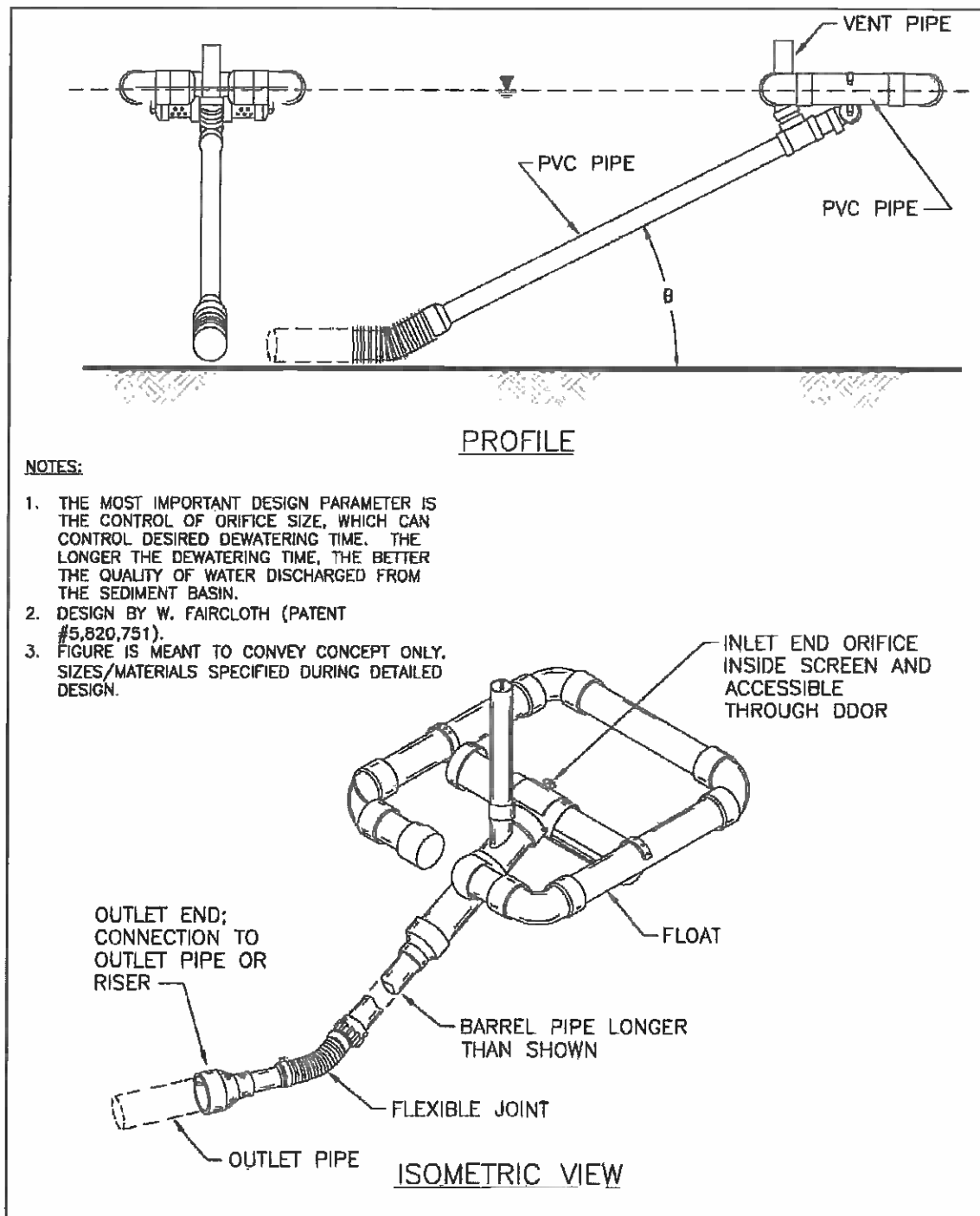
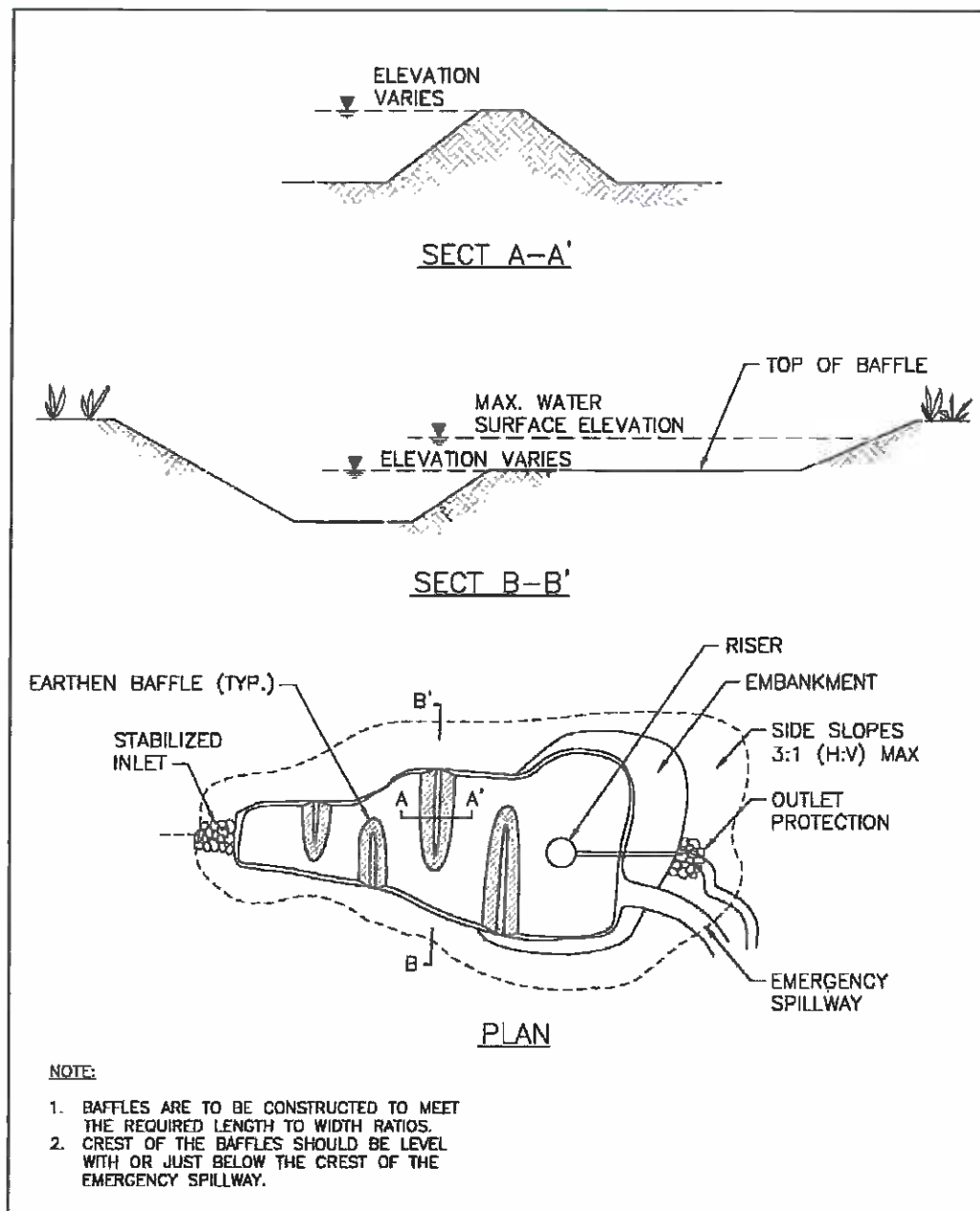
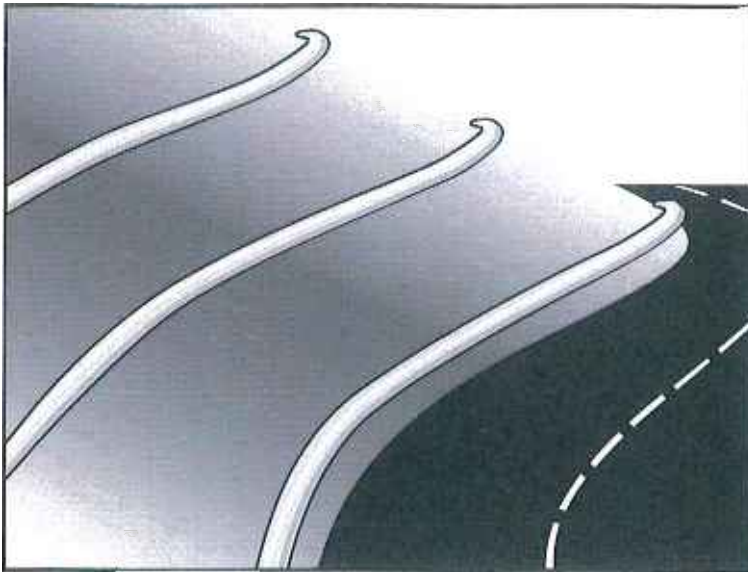


FIGURE 3: TYPICAL SKIMMER
NOT TO SCALE



**FIGURE 4: TYPICAL TEMPORARY SEDIMENT BASIN
WITH BAFFLES
NOT TO SCALE**



Description and Purpose

A fiber roll (also known as wattles or logs) consists of straw, coir, curled wood fiber, or other biodegradable materials bound into a tight tubular roll wrapped by plastic netting, which can be photodegradable, or natural fiber, such as jute, cotton, or sisal. Additionally, gravel core fiber rolls are available, which contain an imbedded ballast material such as gravel or sand for additional weight when staking the rolls are not feasible (such as use as inlet protection). When fiber rolls are placed at the toe and on the face of slopes along the contours, they intercept runoff, reduce its flow velocity, release the runoff as sheet flow, and provide removal of sediment from the runoff (through sedimentation). By interrupting the length of a slope, fiber rolls can also reduce sheet and rill erosion until vegetation is established.

Suitable Applications

Fiber rolls may be suitable:

- Along the toe, top, face, and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow.
- At the end of a downward slope where it transitions to a steeper slope.
- Along the perimeter of a project.
- As check dams in unlined ditches with minimal grade.
- Down-slope of exposed soil areas.

Categories

EC	Erosion Control	<input checked="" type="checkbox"/>
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

- SE-1 Silt Fence
- SE-6 Gravel Bag Berm
- SE-8 Sandbag Barrier
- SE-12 Manufactured Linear Sediment Controls
- SE-14 Biofilter Bags

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- At operational storm drains as a form of inlet protection.
- Around temporary stockpiles.

Limitations

- Fiber rolls should be used in conjunction with erosion control, such as hydroseed, RECPs, etc.
- Only biodegradable fiber rolls containing no plastic can remain on a site applying for a Notice of Termination due to plastic pollution and wildlife concerns (State Water Board, 2016). Fiber rolls containing plastic that are used on a site must be disposed of for final stabilization.
- Fiber rolls are not effective unless trenched in and staked. If not properly staked and trenched in, fiber rolls will not work as intended and could be transported by high flows.
- Not intended for use in high flow situations (i.e., for concentrated flows).
- Difficult to move once saturated.
- Fiber rolls have a limited sediment capture zone.
- Fiber rolls should not be used on slopes subject to creep, slumping, or landslide.
- Rolls typically function for 12-24 months, depending upon local conditions and roll material.

Implementation

Fiber Roll Materials

- Fiber rolls should be prefabricated.
- Fiber rolls may come manufactured containing polyacrylamide (PAM), a flocculating agent within the roll. Fiber rolls impregnated with PAM provide additional sediment removal capabilities and should be used in areas with fine, clayey or silty soils to provide additional sediment removal capabilities. Monitoring may be required for these installations.
- Fiber rolls are made from weed-free rice straw, flax, curled wood fiber, or coir bound into a tight tubular roll by netting or natural fiber (see *Limitations* above regarding plastic netting).
- Typical fiber rolls vary in diameter from 6 in. to 20 in. Larger diameter rolls are available as well. The larger the roll, the higher the sediment retention capacity.
- Typical fiber rolls lengths are 4, 10, 20 and 25 ft., although other lengths are likely available.

Installation

- Locate fiber rolls on level contours spaced as follows:
 - Slope inclination of 4:1 (H:V) or flatter: Fiber rolls should be placed at a maximum interval of 20 ft.

- Slope inclination between 4:1 and 2:1 (H:V): Fiber Rolls should be placed at a maximum interval of 15 ft. (a closer spacing is more effective).
- Slope inclination 2:1 (H:V) or greater: Fiber Rolls should be placed at a maximum interval of 10 ft. (a closer spacing is more effective).
- Prepare the slope before beginning installation.
- Dig small trenches across the slope on the contour. The trench depth should be $\frac{1}{4}$ to $\frac{1}{3}$ of the thickness of the roll, and the width should equal the roll diameter, in order to provide area to backfill the trench.
- It is critical that rolls are installed perpendicular to water movement, and parallel to the slope contour.
- Start building trenches and installing rolls from the bottom of the slope and work up.
- It is recommended that pilot holes be driven through the fiber roll. Use a straight bar to drive holes through the roll and into the soil for the wooden stakes.
- Turn the ends of the fiber roll up slope to prevent runoff from going around the roll.
- Stake fiber rolls into the trench.
 - Drive stakes at the end of each fiber roll and spaced 4 ft maximum on center.
 - Use wood stakes with a nominal classification of 0.75 by 0.75 in. and minimum length of 24 in.
- If more than one fiber roll is placed in a row, the rolls should be overlapped, not abutted.
- See typical fiber roll installation details at the end of this fact sheet.

Removal

- Fiber rolls can be left in place or removed depending on the type of fiber roll and application (temporary vs. permanent installation). Fiber rolls encased with plastic netting or containing any plastic material will need to be removed from the site for final stabilization. Fiber rolls used in a permanent application are to be encased with a non-plastic material and are left in place. Removal of a fiber roll used in a permanent application can result in greater disturbance; therefore, during the BMP planning phase, the areas where fiber rolls will be used on final slopes, only fiber rolls wrapped in non-plastic material should be selected.
- Temporary installations should only be removed when up gradient areas are stabilized per General Permit requirements, and/or pollutant sources no longer present a hazard. But they should also be removed before vegetation becomes too mature so that the removal process does not disturb more soil and vegetation than is necessary.

Costs

Material costs for straw fiber rolls range from \$26 - \$38 per 25-ft. roll¹ and curled wood fiber rolls range from \$30 - \$40 per roll².

Material costs for PAM impregnated fiber rolls range between \$9.00-\$12.00 per linear foot, based upon vendor research¹.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Repair or replace split, torn, unraveling, or slumping fiber rolls.
- If the fiber roll is used as a sediment capture device, or as an erosion control device to maintain sheet flows, sediment that accumulates in the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when sediment accumulation reaches one-third the designated sediment storage depth.
- If fiber rolls are used for erosion control, such as in a check dam, sediment removal should not be required as long as the system continues to control the grade. Sediment control BMPs will likely be required in conjunction with this type of application.
- Repair any rills or gullies promptly.

References

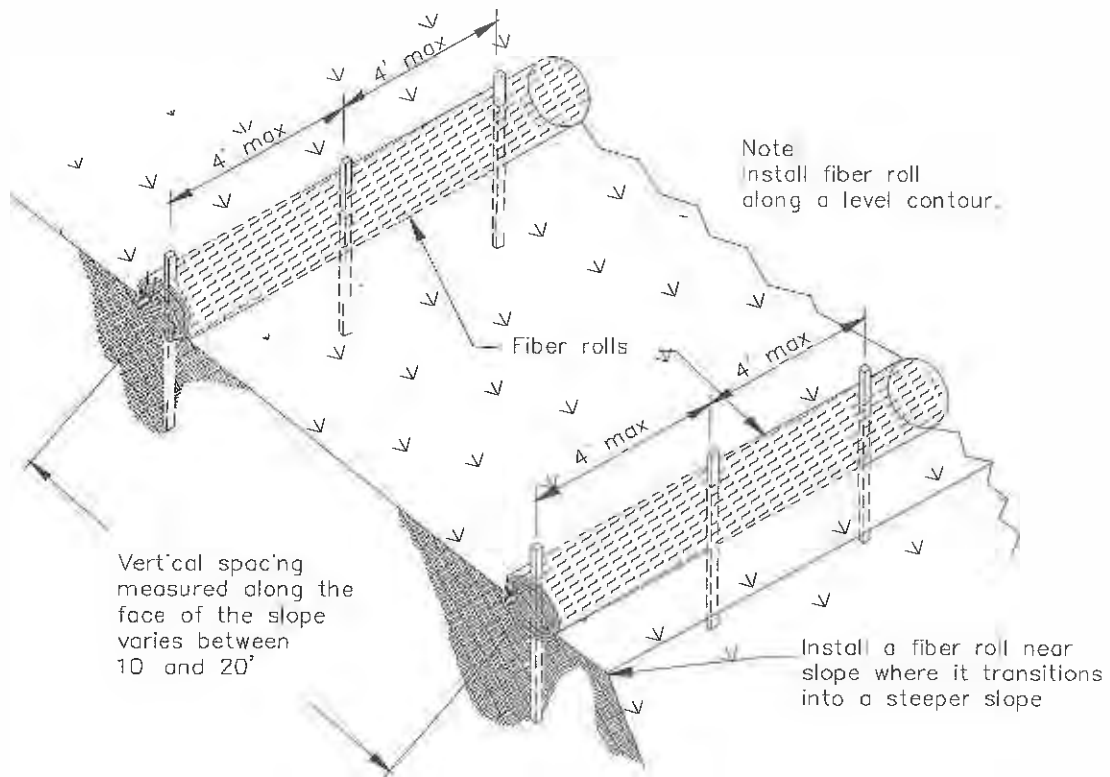
General Construction – Frequently Asked Questions, Storm Water Program website, State Water Resources Control Board, 2009 updated in 2016. Available online at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/gen_const_faq.shtml.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.

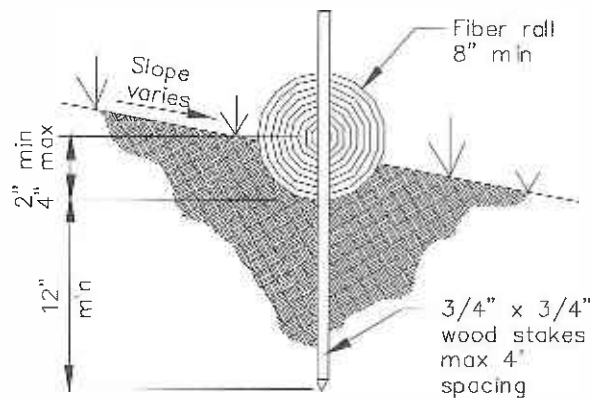
¹ Adjusted for inflation (2016 dollars) by Tetra Tech, Inc.

² Costs estimated based on vendor query by Tetra Tech, Inc. 2016.



TYPICAL FIBER ROLL INSTALLATION

N.T.S.



ENTRENCHMENT DETAIL

N.T.S.



Description and Purpose

Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

Suitable Applications

Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

Limitations

- Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).
- Sweeping may be less effective for fine particle soils (i.e., clay).

Implementation

- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused and perhaps save money.
- Inspect potential sediment tracking locations daily.

Categories

EC	Erosion Control	
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	<input checked="" type="checkbox"/>
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	<input checked="" type="checkbox"/>
Metals	
Bacteria	
Oil and Grease	<input checked="" type="checkbox"/>
Organics	

Potential Alternatives

None

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- Visible sediment tracking should be swept or vacuumed on a daily basis.
- Do not use kick brooms or sweeper attachments. These tend to spread the dirt rather than remove it.
- If not mixed with debris or trash, consider incorporating the removed sediment back into the project

Costs

Rental rates for self-propelled sweepers vary depending on hopper size and duration of rental. Expect rental rates from \$ 650/day to \$2,500/day¹, plus operator costs. Hourly production rates vary with the amount of area to be swept and amount of sediment. Match the hopper size to the area and expect sediment load to minimize time spent dumping.

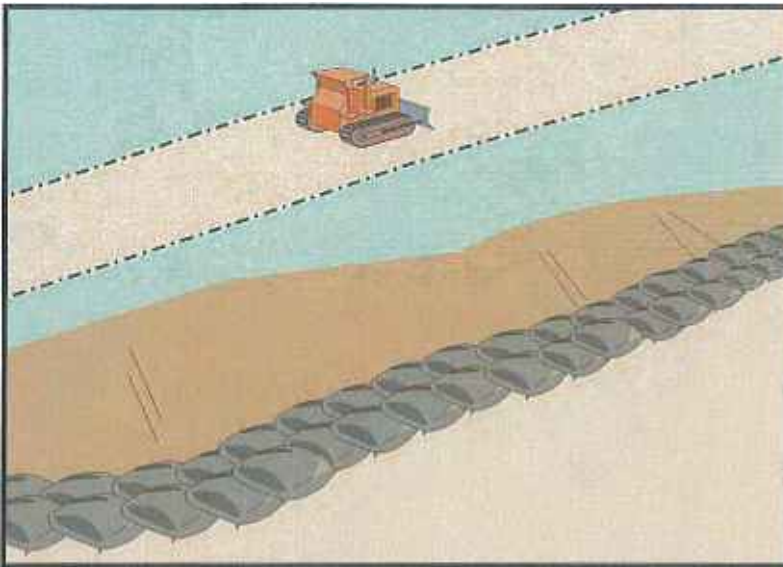
Inspection and Maintenance

- Inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- When actively in use, points of ingress and egress must be inspected daily.
- When tracked or spilled sediment is observed outside the construction limits, it must be removed at least daily. More frequent removal, even continuous removal, may be required in some jurisdictions.
- Be careful not to sweep up any unknown substance or any object that may be potentially hazardous.
- Adjust brooms frequently; maximize efficiency of sweeping operations.
- After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

¹ Based on contractor query conducted by Tetra Tech, Inc. November 2016.



Categories

EC	Erosion Control	<input checked="" type="checkbox"/>
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Description and Purpose

A sandbag barrier is a series of sand-filled bags placed on a level contour to intercept or to divert sheet flows. Sandbag barriers placed on a level contour pond sheet flow runoff, allowing sediment to settle out.

Suitable Applications

Sandbag barriers may be a suitable control measure for the applications described below. It is important to consider that sand bags are less porous than gravel bags and ponding or flooding can occur behind the barrier. Also, sand is easily transported by runoff if bags are damaged or ruptured. The SWPPP Preparer should select the location of a sandbag barrier with respect to the potential for flooding, damage, and the ability to maintain the BMP.

- As a linear sediment control measure:
 - Below the toe of slopes and erodible slopes.
 - As sediment traps at culvert/pipe outlets.
 - Below other small cleared areas.
 - Along the perimeter of a site.
 - Down slope of exposed soil areas.
 - Around temporary stockpiles and spoil areas.
 - Parallel to a roadway to keep sediment off paved areas.
 - Along streams and channels.

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

- SE-1 Silt Fence
- SE-5 Fiber Rolls
- SE-6 Gravel Bag Berm
- SE-12 Manufactured Linear Sediment Controls
- SE-14 Biofilter Bags

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- As linear erosion control measure:
 - Along the face and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow.
 - At the top of slopes to divert runoff away from disturbed slopes.
 - As check dams across mildly sloped construction roads.

Limitations

- It is necessary to limit the drainage area upstream of the barrier to 5 acres.
- Sandbags are not intended to be used as filtration devices.
- Easily damaged by construction equipment.
- Degraded sandbags may rupture when removed, spilling sand.
- Installation can be labor intensive.
- Durability of sandbags is somewhat limited, and bags will need to be replaced when there are signs of damage or wear.
- Burlap should not be used for sandbags.

Implementation

General

A sandbag barrier consists of a row of sand-filled bags placed on a level contour. When appropriately placed, a sandbag barrier intercepts and slows sheet flow runoff, causing temporary ponding. The temporary ponding allows sediment to settle. Sand-filled bags have limited porosity, which is further limited as the fine sand tends to quickly plug with sediment, limiting or completely blocking the rate of flow through the barrier. If a porous barrier is desired, consider SE-1, Silt Fence, SE-5, Fiber Rolls, SE-6, Gravel Bag Berms or SE-14, Biofilter Bags. Sandbag barriers also interrupt the slope length and thereby reduce erosion by reducing the tendency of sheet flows to concentrate into rivulets which erode rills, and ultimately gullies, into disturbed, sloped soils. Sandbag barriers are similar to gravel bag berms, but less porous. Generally, sandbag barriers should be used in conjunction with temporary soil stabilization controls up slope to provide effective erosion and sediment control.

Design and Layout

- Locate sandbag barriers on a level contour.
- When used for slope interruption, the following slope/sheet flow length combinations apply:
 - Slope inclination of 4:1 (H:V) or flatter: Sandbags should be placed at a maximum interval of 20 ft, with the first row near the slope toe.
 - Slope inclination between 4:1 and 2:1 (H:V): Sandbags should be placed at a maximum interval of 15 ft. (a closer spacing is more effective), with the first row near the slope toe.

- Slope inclination 2:1 (H:V) or greater: Sandbags should be placed at a maximum interval of 10 ft. (a closer spacing is more effective), with the first row near the slope toe.
- Turn the ends of the sandbag barrier up slope to prevent runoff from going around the barrier.
- Allow sufficient space up slope from the barrier to allow ponding, and to provide room for sediment storage.
- For installation near the toe of the slope, sand bag barriers should be set back from the slope toe to facilitate cleaning. Where specific site conditions do not allow for a set-back, the sand bag barrier may be constructed on the toe of the slope. To prevent flows behind the barrier, bags can be placed perpendicular to a berm to serve as cross barriers.
- Drainage area should not exceed 5 acres.
- Butt ends of bags tightly.
- Overlap butt joints of row beneath with each successive row.
- Use a pyramid approach when stacking bags.
- In non-traffic areas
 - Height = 18 in. maximum
 - Top width = 24 in. minimum for three or more-layer construction
 - Side slope = 2:1 (H:V) or flatter
- In construction traffic areas
 - Height = 12 in. maximum
 - Top width = 24 in. minimum for three or more-layer construction.
 - Side slopes = 2:1 (H:V) or flatter.
- See typical sandbag barrier installation details at the end of this fact sheet.

Materials

- **Sandbag Material:** Sandbag should be woven polypropylene, polyethylene or polyamide fabric, minimum unit weight of 4 ounces/yd², Mullen burst strength exceeding 300 lb/in² in conformance with the requirements in ASTM designation D3786, and ultraviolet stability exceeding 70% in conformance with the requirements in ASTM designation D4355. Use of burlap is not an acceptable substitute, as sand can more easily mobilize out of burlap.
- **Sandbag Size:** Each sand-filled bag should have a length of 18 in., width of 12 in., thickness of 3 in., and mass of approximately 33 lbs. Bag dimensions are nominal and may vary based on locally available materials.

- **Fill Material:** All sandbag fill material should be non-cohesive, Class 3 (Caltrans Standard Specification, Section 25) or similar permeable material free from clay and deleterious material, such as recycled concrete or asphalt.

Costs

Empty sandbags cost \$0.25 - \$0.75. Average cost of fill material is \$8 per yd³. Additional labor is required to fill the bags. Pre-filled sandbags are more expensive at \$1.50 - \$2.00 per bag. These costs are based upon vendor research.

Inspection and Maintenance

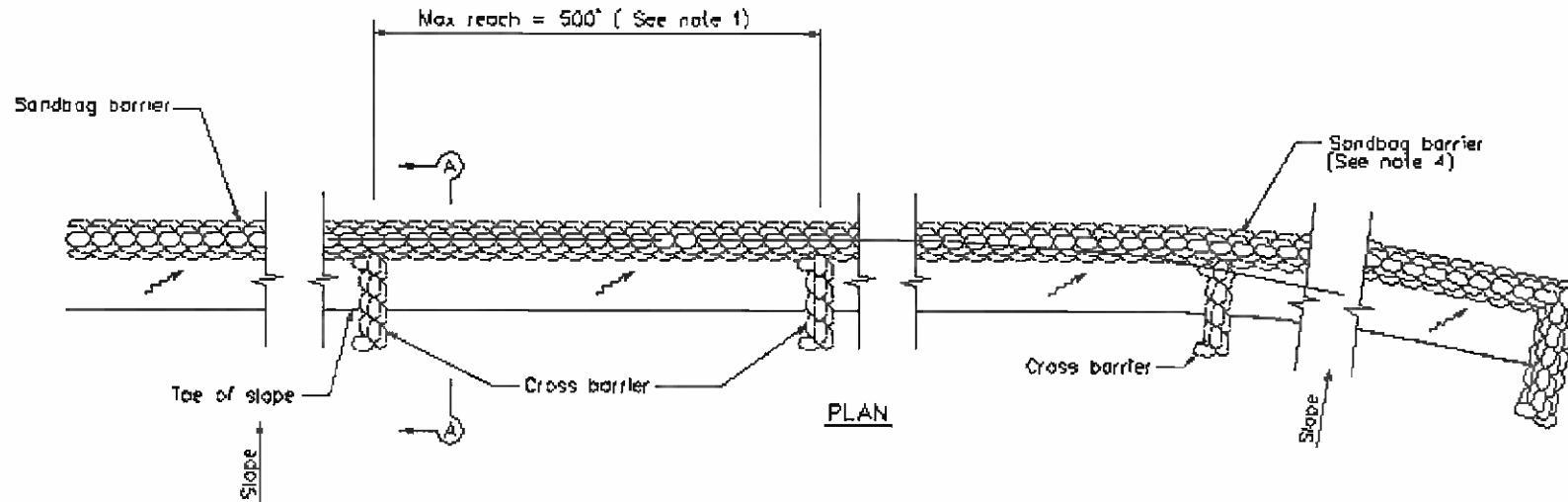
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Sandbags exposed to sunlight will need to be replaced every two to three months due to degradation of the bags.
- Reshape or replace sandbags as needed.
- Repair washouts or other damage as needed.
- Sediment that accumulates behind the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Remove sandbags when no longer needed and recycle sand fill whenever possible and properly dispose of bag material. Remove sediment accumulation, and clean, re-grade, and stabilize the area.

References

Standard Specifications for Construction of Local Streets and Roads, California Department of Transportation (Caltrans), July 2002.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.



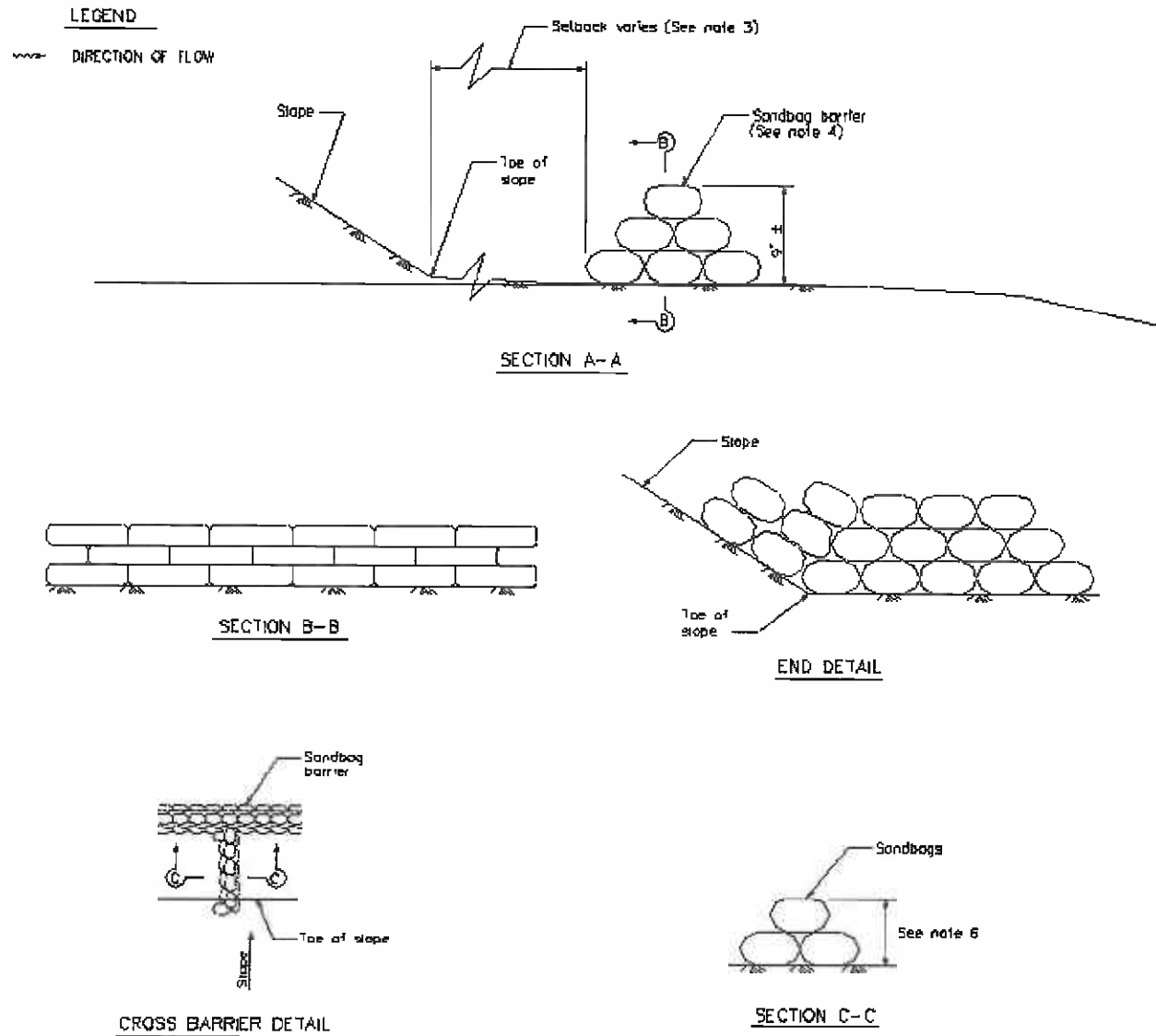
SANDBAG BARRIER

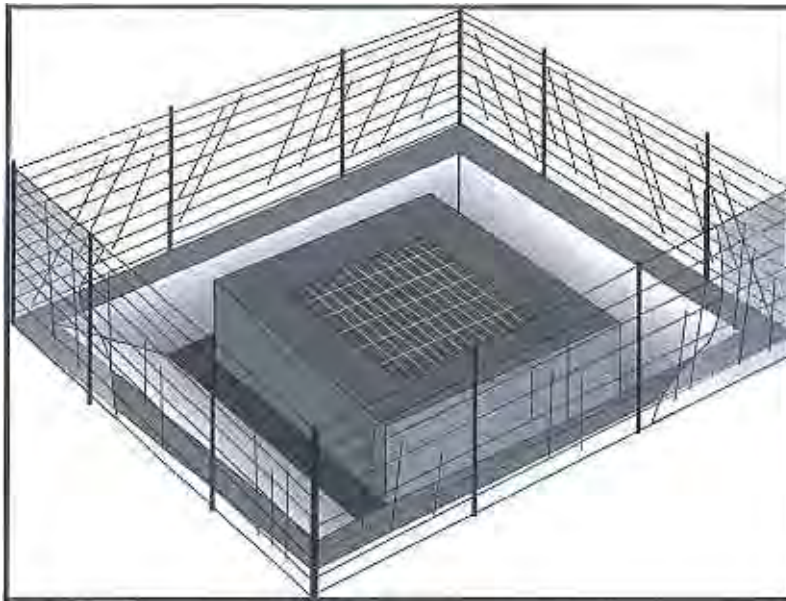
NOTES

1. Construct the length of each reach so that the change in base elevation along the reach does not exceed $1/2$ the height of the linear barrier. In no case shall the reach length exceed 500'.
2. Place sandbags tightly.
3. Dimension may vary to fit field condition.
4. Sandbag barrier shall be a minimum of 3 bags high.
5. The end of the barrier shall be turned up slope.
6. Cross barriers shall be a min of $1/2$ and a max of $2/3$ the height of the linear barrier.
7. Sandbag rows and layers shall be staggered to eliminate gaps.

Sandbag Barrier

SE-8





Description and Purpose

Storm drain inlet protection consists of a sediment filter or an impounding area in, around or upstream of a storm drain, drop inlet, or curb inlet. Storm drain inlet protection measures temporarily pond runoff before it enters the storm drain, allowing sediment to settle. Some filter configurations also remove sediment by filtering, but usually the ponding action results in the greatest sediment reduction. Temporary geotextile storm drain inserts attach underneath storm drain grates to capture and filter storm water.

Suitable Applications

- Every storm drain inlet receiving runoff from unstabilized or otherwise active work areas should be protected. Inlet protection should be used in conjunction with other erosion and sediment controls to prevent sediment-laden stormwater and non-stormwater discharges from entering the storm drain system.

Limitations

- Drainage area should not exceed 1 acre.
- In general straw bales should not be used as inlet protection.
- Requires an adequate area for water to pond without encroaching into portions of the roadway subject to traffic.
- Sediment removal may be inadequate to prevent sediment discharges in high flow conditions or if runoff is heavily sediment laden. If high flow conditions are expected, use

Categories

EC	Erosion Control	
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	<input checked="" type="checkbox"/>
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

- SE-1 Silt Fence
- SE-5 Fiber Rolls
- SE-6 Gravel Bag Berm
- SE-8 Sandbag Barrier
- SE-14 Biofilter Bags
- SE-13 Compost Socks and Berms

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other onsite sediment trapping techniques in conjunction with inlet protection.

- Frequent maintenance is required.
- Limit drainage area to 1 acre maximum. For drainage areas larger than 1 acre, runoff should be routed to a sediment-trapping device designed for larger flows. See BMPs SE-2, Sediment Basin, and SE-3, Sediment Traps.
- Excavated drop inlet sediment traps are appropriate where relatively heavy flows are expected, and overflow capability is needed.

Implementation

General

Inlet control measures presented in this handbook should not be used for inlets draining more than one acre. Runoff from larger disturbed areas should be first routed through SE-2, Sediment Basin or SE-3, Sediment Trap and/or used in conjunction with other drainage control, erosion control, and sediment control BMPs to protect the site. Different types of inlet protection are appropriate for different applications depending on site conditions and the type of inlet. Alternative methods are available in addition to the methods described/shown herein such as prefabricated inlet insert devices, or gutter protection devices.

Design and Layout

Identify existing and planned storm drain inlets that have the potential to receive sediment-laden surface runoff. Determine if storm drain inlet protection is needed and which method to use.

- The key to successful and safe use of storm drain inlet protection devices is to know where runoff that is directed toward the inlet to be protected will pond or be diverted as a result of installing the protection device.
 - Determine the acceptable location and extent of ponding in the vicinity of the drain inlet. The acceptable location and extent of ponding will influence the type and design of the storm drain inlet protection device.
 - Determine the extent of potential runoff diversion caused by the storm drain inlet protection device. Runoff ponded by inlet protection devices may flow around the device and towards the next downstream inlet. In some cases, this is acceptable; in other cases, serious erosion or downstream property damage can be caused by these diversions. The possibility of runoff diversions will influence whether or not storm drain inlet protection is suitable; and, if suitable, the type and design of the device.
- The location and extent of ponding, and the extent of diversion, can usually be controlled through appropriate placement of the inlet protection device. In some cases, moving the inlet protection device a short distance upstream of the actual inlet can provide more efficient sediment control, limit ponding to desired areas, and prevent or control diversions.
- Seven types of inlet protection are presented below. However, it is recognized that other effective methods and proprietary devices exist and may be selected.

- Silt Fence: Appropriate for drainage basins with less than a 5% slope, sheet flows, and flows under 0.5 cfs.
 - Excavated Drop Inlet Sediment Trap: An excavated area around the inlet to trap sediment (SE-3).
 - Gravel bag barrier: Used to create a small sediment trap upstream of inlets on sloped, paved streets. Appropriate for sheet flow or when concentrated flow may exceed 0.5 cfs, and where overtopping is required to prevent flooding.
 - Block and Gravel Filter: Appropriate for flows greater than 0.5 cfs.
 - Temporary Geotextile Storm drain Inserts: Different products provide different features. Refer to manufacturer details for targeted pollutants and additional features.
 - Biofilter Bag Barrier: Used to create a small retention area upstream of inlets and can be located on pavement or soil. Biofilter bags slowly filter runoff allowing sediment to settle out. Appropriate for flows under 0.5 cfs.
 - Compost Socks: Allow filtered run-off to pass through the compost while retaining sediment and potentially other pollutants (SE-13). Appropriate for flows under 1.0 cfs.
- Select the appropriate type of inlet protection and design as referred to or as described in this fact sheet.
 - Provide area around the inlet for water to pond without flooding structures and property.
 - Grates and spaces around all inlets should be sealed to prevent seepage of sediment-laden water.
 - Excavate sediment sumps (where needed) 1 to 2 ft with 2:1 side slopes around the inlet.

Installation

- **DI Protection Type 1 - Silt Fence** - Similar to constructing a silt fence; see BMP SE-1, Silt Fence. Do not place fabric underneath the inlet grate since the collected sediment may fall into the drain inlet when the fabric is removed or replaced and water flow through the grate will be blocked resulting in flooding. See typical Type 1 installation details at the end of this fact sheet.
 1. Excavate a trench approximately 6 in. wide and 6 in. deep along the line of the silt fence inlet protection device.
 2. Place 2 in. by 2 in. wooden stakes around the perimeter of the inlet a maximum of 3 ft apart and drive them at least 18 in. into the ground or 12 in. below the bottom of the trench. The stakes should be at least 48 in.
 3. Lay fabric along bottom of trench, up side of trench, and then up stakes. See SE-1, Silt Fence, for details. The maximum silt fence height around the inlet is 24 in.
 4. Staple the filter fabric (for materials and specifications, see SE-1, Silt Fence) to wooden stakes. Use heavy-duty wire staples at least 1 in. in length.

5. Backfill the trench with gravel or compacted earth all the way around.
- **DI Protection Type 2 - Excavated Drop Inlet Sediment Trap** - Install filter fabric fence in accordance with DI Protection Type 1. Size excavated trap to provide a minimum storage capacity calculated at the rate 67 yd³/acre of drainage area. See typical Type 2 installation details at the end of this fact sheet.
 - **DI Protection Type 3 - Gravel bag** - Flow from a severe storm should not overtop the curb. In areas of high clay and silts, use filter fabric and gravel as additional filter media. Construct gravel bags in accordance with SE-6, Gravel Bag Berm. Gravel bags should be used due to their high permeability. See typical Type 3 installation details at the end of this fact sheet.
 1. Construct on gently sloping street.
 2. Leave room upstream of barrier for water to pond and sediment to settle.
 3. Place several layers of gravel bags – overlapping the bags and packing them tightly together.
 4. Leave gap of one bag on the top row to serve as a spillway. Flow from a severe storm (e.g., 10-year storm) should not overtop the curb.
 - **DI Protection Type 4 – Block and Gravel Filter** - Block and gravel filters are suitable for curb inlets commonly used in residential, commercial, and industrial construction. See typical Type 4 installation details at the end of this fact sheet.
 1. Place hardware cloth or comparable wire mesh with 0.5 in. openings over the drop inlet so that the wire extends a minimum of 1 ft beyond each side of the inlet structure. If more than one strip is necessary, overlap the strips. Place woven geotextile over the wire mesh.
 2. Place concrete blocks lengthwise on their sides in a single row around the perimeter of the inlet, so that the open ends face outward, not upward. The ends of adjacent blocks should abut. The height of the barrier can be varied, depending on design needs, by stacking combinations of blocks that are 4 in., 8 in., and 12 in. wide. The row of blocks should be at least 12 in. but no greater than 24 in. high.
 3. Place wire mesh over the outside vertical face (open end) of the concrete blocks to prevent stone from being washed through the blocks. Use hardware cloth or comparable wire mesh with 0.5 in. opening.
 4. Pile washed stone against the wire mesh to the top of the blocks. Use 0.75 to 3 in.
 - **DI Protection Type 5 – Temporary Geotextile Insert (proprietary)** – Many types of temporary inserts are available. Most inserts fit underneath the grate of a drop inlet or inside of a curb inlet and are fastened to the outside of the grate or curb. These inserts are removable, and many can be cleaned and reused. Installation of these inserts differs between manufacturers. Please refer to manufacturer instruction for installation of proprietary devices.

- **DI Protection Type 6 - Biofilter bags** – Biofilter bags may be used as a substitute for gravel bags in low-flow situations. Biofilter bags should conform to specifications detailed in SE-14, Biofilter bags.
 1. Construct in a gently sloping area.
 2. Biofilter bags should be placed around inlets to intercept runoff flows.
 3. All bag joints should overlap by 6 in.
 4. Leave room upstream for water to pond and for sediment to settle out.
 5. Stake bags to the ground as described in the following detail. Stakes may be omitted if bags are placed on a paved surface.
- **DI Protection Type 7 – Compost Socks** – A compost sock can be assembled on site by filling a mesh sock (e.g., with a pneumatic blower). Compost socks do not require special trenching compared to other sediment control methods (e.g., silt fence). Compost socks should conform to specification detailed in SE-13, Compost Socks and Berms.

Costs

- Average annual cost for installation and maintenance of DI Type 1-4 and 6 (one-year useful life) is \$200 per inlet.
- Temporary geotextile inserts are proprietary, and cost varies by region. These inserts can often be reused and may have greater than 1 year of use if maintained and kept undamaged. Average cost per insert ranges from \$50-75 plus installation, but costs can exceed \$100. This cost does not include maintenance.
- See SE-13 for Compost Sock cost information.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Silt Fences. If the fabric becomes clogged, torn, or degrades, it should be replaced. Make sure the stakes are securely driven in the ground and are in good shape (i.e., not bent, cracked, or splintered, and are reasonably perpendicular to the ground). Replace damaged stakes. At a minimum, remove the sediment behind the fabric fence when accumulation reaches one-third the height of the fence or barrier height.
- Gravel Filters. If the gravel becomes clogged with sediment, it should be carefully removed from the inlet and either cleaned or replaced. Since cleaning gravel at a construction site may be difficult, consider using the sediment-laden stone as fill material and put fresh stone around the inlet. Inspect bags for holes, gashes, and snags, and replace bags as needed. Check gravel bags for proper arrangement and displacement.

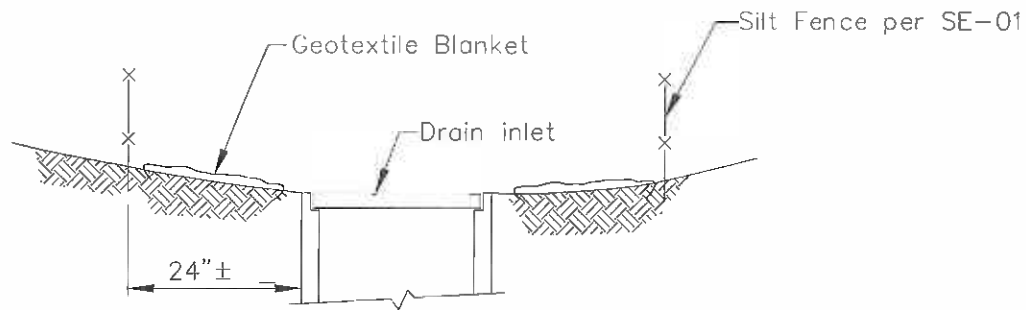
- Sediment that accumulates in the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Inspect and maintain temporary geotextile insert devices according to manufacturer's specifications.
- Remove storm drain inlet protection once the drainage area is stabilized.
 - Clean and regrade area around the inlet and clean the inside of the storm drain inlet, as it should be free of sediment and debris at the time of final inspection.

References

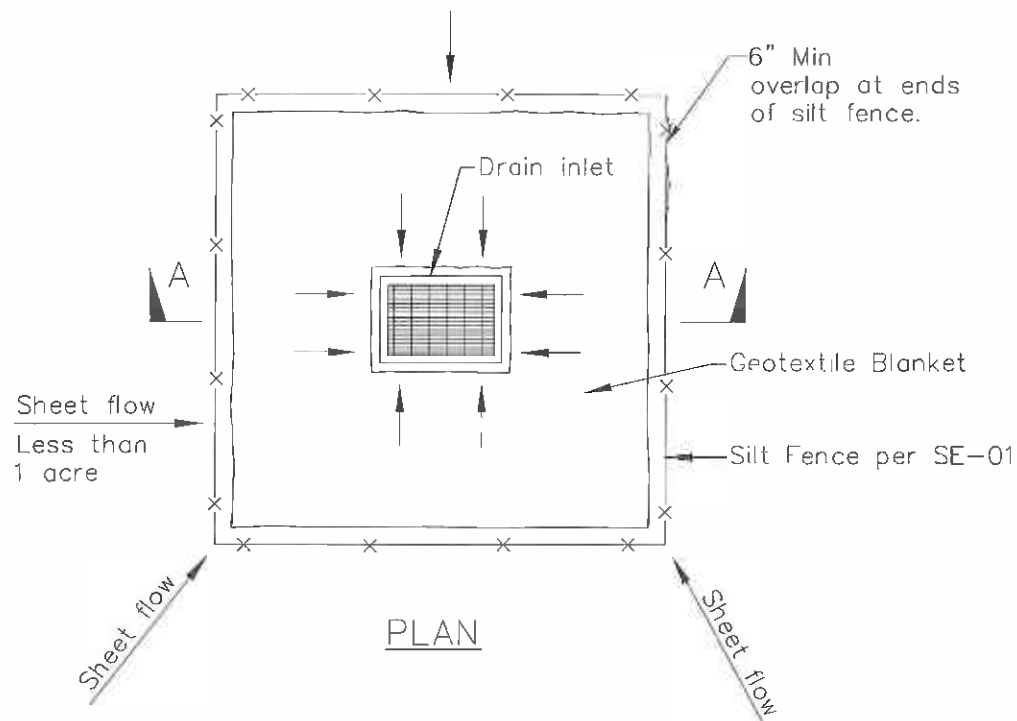
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Stormwater Management Manual for The Puget Sound Basin, Washington State Department of Ecology, Public Review Draft, 1991.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.



SECTION A-A

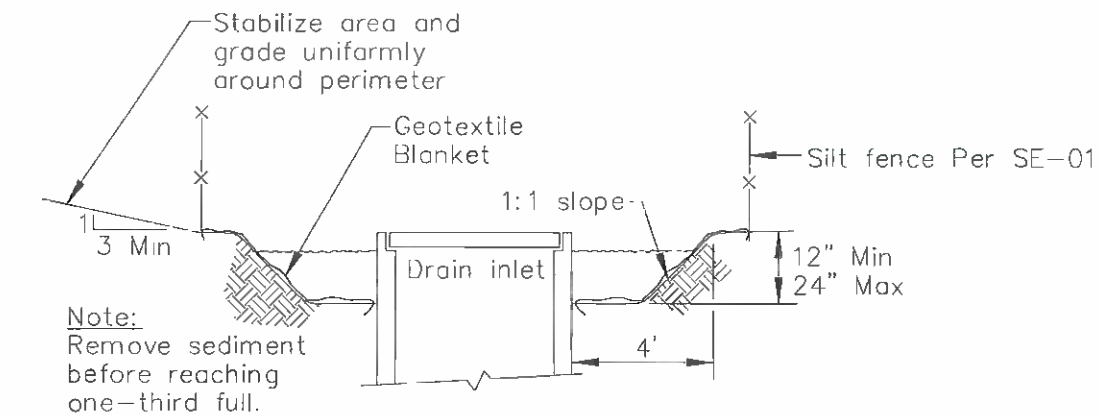


PLAN

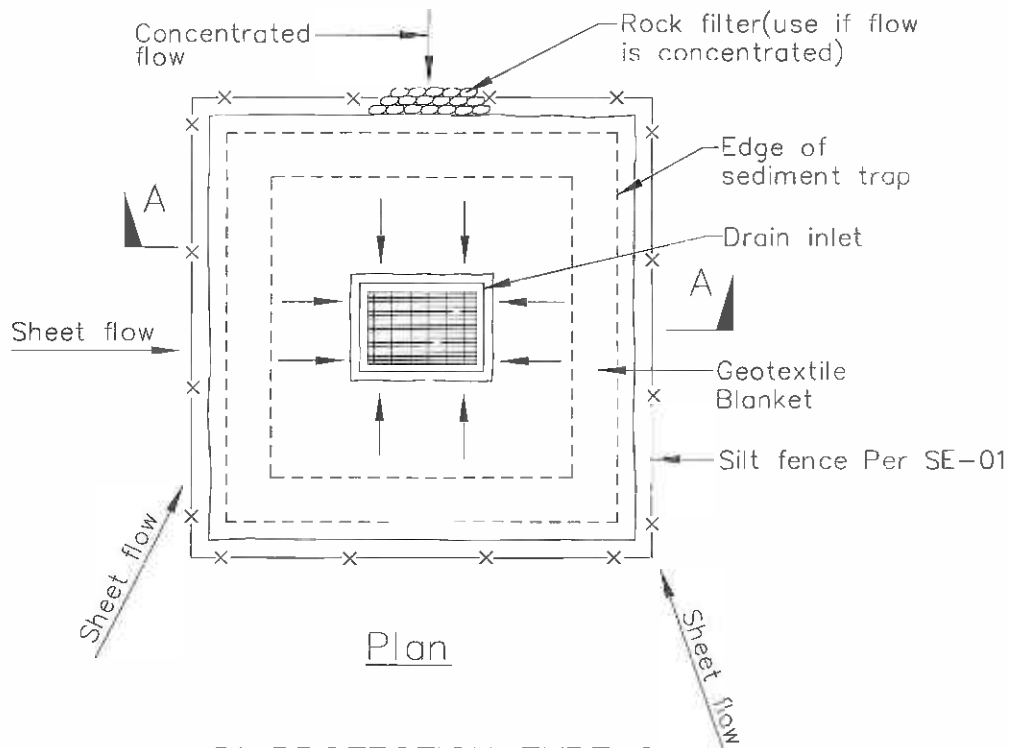
DI PROTECTION TYPE 1
NOT TO SCALE

NOTES:

1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.
2. Not applicable in paved areas.
3. Not applicable with concentrated flows.



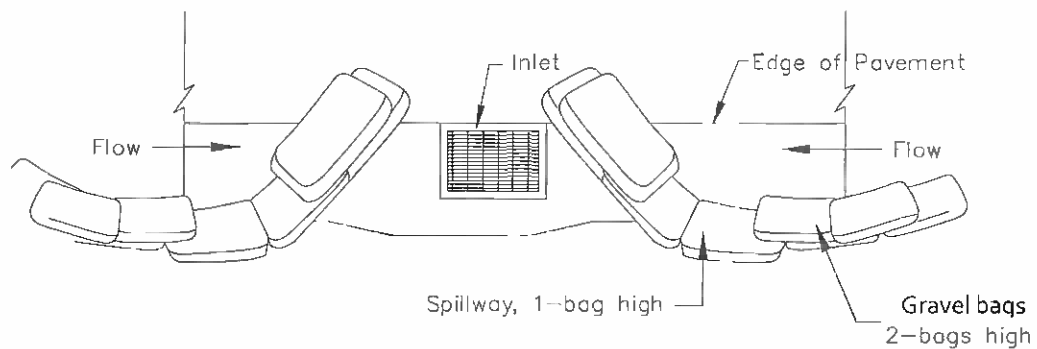
Section A-A



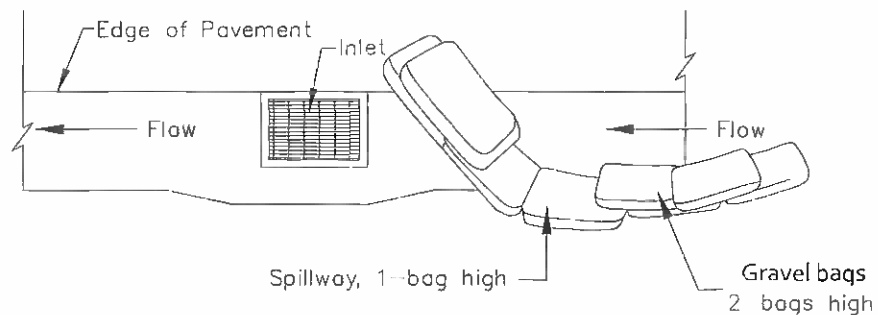
DI PROTECTION TYPE 2
NOT TO SCALE

Notes

1. For use in cleared and grubbed and in graded areas.
2. Shape basin so that longest inflow area faces longest length of trap.
3. For concentrated flows, shape basin in 2:1 ratio with length oriented towards direction of flow.



TYPICAL PROTECTION FOR INLET ON SUMP

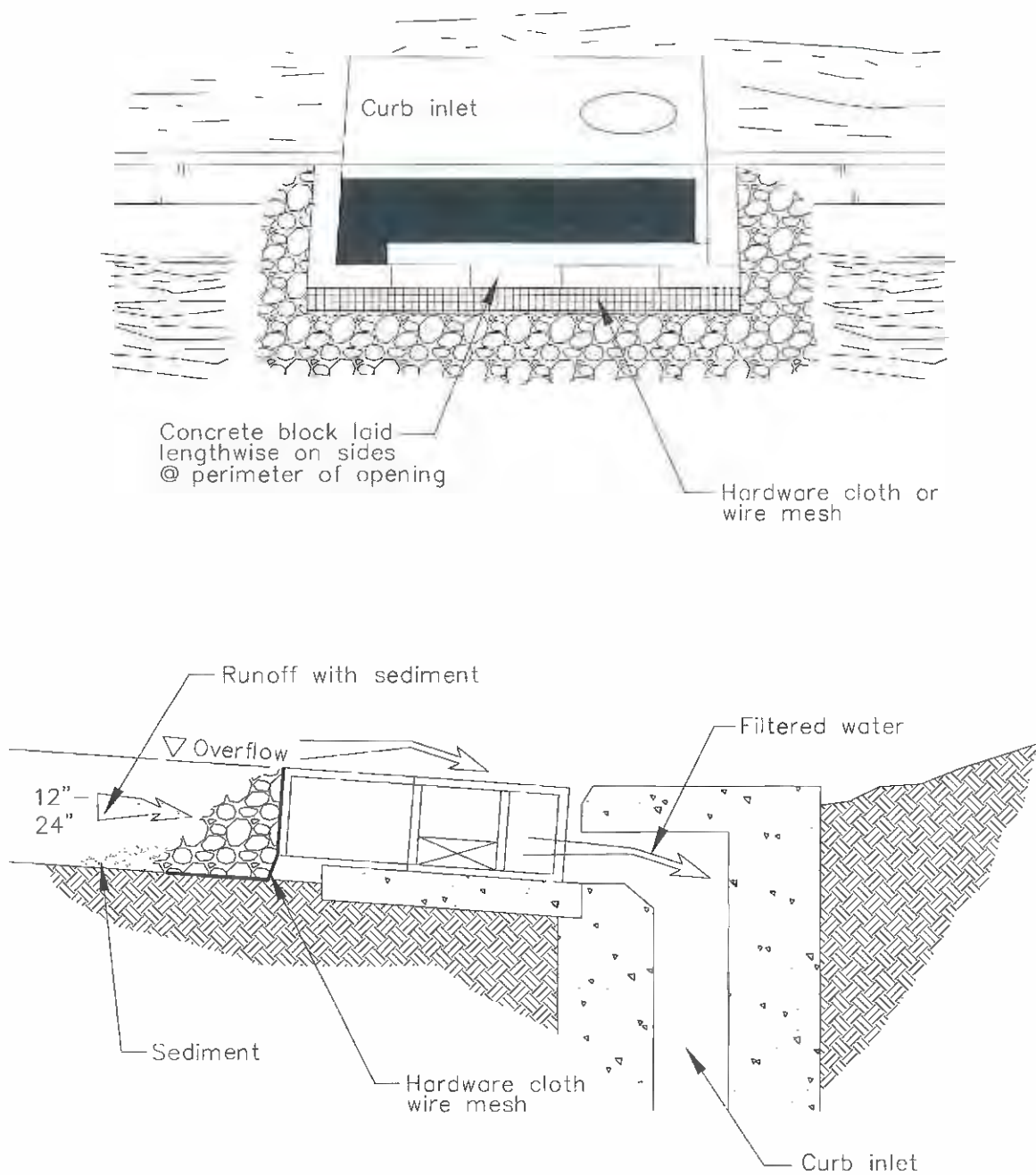


TYPICAL PROTECTION FOR INLET ON GRADE

NOTES:

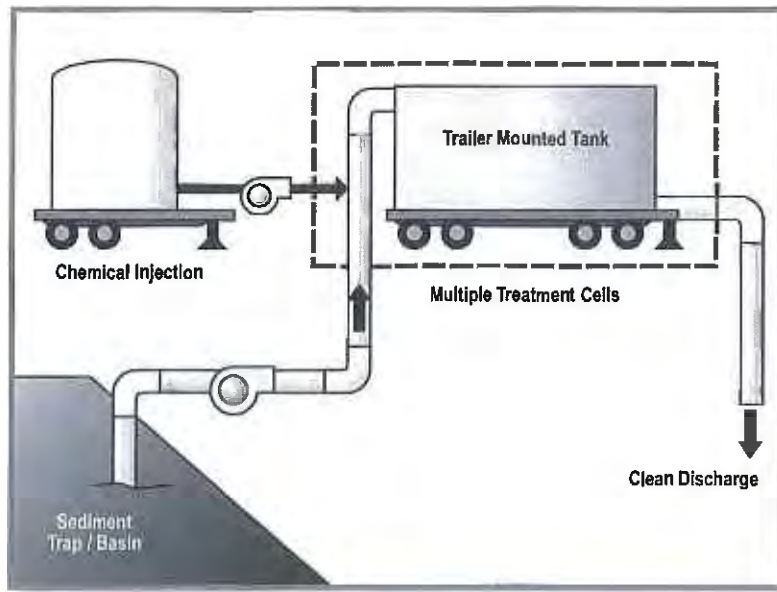
1. Intended for short-term use.
2. Use to inhibit non-storm water flow.
3. Allow for proper maintenance and cleanup.
4. Bags must be removed after adjacent operation is completed.
5. Not applicable in areas with high silts and clays without filter fabric.
6. Protection can be effective even if it is not immediately adjacent to the inlet provided that the inlet is protected from potential sources of pollution.

DI PROTECTION TYPE 3
NOT TO SCALE



DI PROTECTION – TYPE 4

NOT TO SCALE



Categories

EC	Erosion Control	<input checked="" type="checkbox"/>
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Category
- ☐ Secondary Category

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

Active Treatment Systems (ATS) reduce turbidity of construction site runoff by introducing chemicals to stormwater through direct dosing or an electrical current to enhance flocculation, coagulation, and settling of the suspended sediment. Coagulants and flocculants are used to enhance settling and removal of suspended sediments and generally include inorganic salts and polymers (USACE, 2001). The increased flocculation aids in sedimentation and ability to remove fine suspended sediments, thus reducing stormwater runoff turbidity and improving water quality.

Suitable Applications

ATS can reliably provide exceptional reductions of turbidity and associated pollutants and should be considered where turbid discharges to sediment and turbidity sensitive waters cannot be avoided using traditional BMPs. Additionally, it may be appropriate to use an ATS when site constraints inhibit the ability to construct a correctly sized sediment basin, when clay and/or highly erosive soils are present, or when the site has very steep or long slope lengths.

Limitations

Dischargers choosing to utilize chemical treatment in an ATS must follow all guidelines of the Construction General Permit Attachment F – Active Treatment System Requirements. General limitations are as follows:

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- Numeric Effluent Limit (NEL) for all discharges (10 NTU daily flow-weighted average)
- Limited availability of chemical residual testing procedures that meet permit requirements for flow-through treatment
- Specific field and classroom ATS training required to operate equipment
- Batch treatment requires extensive toxicity testing of effluent
- Batch treatment requires large footprint to accommodate treatment cells
- Requires additional filtration to remove residual floc and treatment chemicals prior to discharge
- Petroleum based polymers should not be used
- Requires site-specific design and equipment
- Limited discharge rates depending on receiving water body
- Labor intensive operation and maintenance
- ATS costs are higher on a unit basis for smaller sites that would be expected to have a lower volume of treated runoff
- ATS costs are seasonably variable due to increases or decreases in rainfall volumes

Implementation

Turbidity is difficult to control once fine particles are suspended in stormwater runoff from a construction site. Sedimentation ponds are effective at removing larger particulate matter by gravity settling but are ineffective at removing smaller particulates such as clay and fine silt. Sediment ponds are typically designed to remove sediment no smaller than medium silt (0.02 mm). ATS may be used to reduce the turbidity of stormwater runoff. With an ATS, very high turbidities can be reduced to levels comparable to what is found in streams during dry weather.

Criteria for ATS Product Use

Chemically treated stormwater discharged from construction sites must be non-toxic to aquatic organisms. The following protocol should be used to evaluate chemicals proposed for stormwater treatment at construction sites. Authorization to use a chemical in the field based on this protocol does not relieve the applicant from responsibility for meeting all discharge and receiving water criteria applicable to a site.

- An ATS Plan, which includes an Operation and Maintenance component, a Monitoring, Sampling and Reporting component, a Health and Safety component, and a Spill Prevention component must be prepared and submitted to the Regional Water Quality Control Board (RWQCB).

- Treatment chemicals should be approved by EPA for potable water use or otherwise be demonstrated to be protective of human health and the environment. Chemical residual or whole effluent toxicity testing is required.
- Prior to field use of chemical treatment, jar tests are to be conducted to demonstrate that turbidity reduction necessary to meet the NELs and receiving water criteria can be achieved. Test conditions, including but not limited to raw water quality and jar test procedures, should be indicative of field conditions. Although these small-scale tests cannot be expected to reproduce performance under field conditions, they are indicative of treatment capability. A minimum of six site-specific jar tests must be conducted per chemical.
- The proposed maximum dosage should be at least a factor of five lower than the no observed effects concentration (NOEC).
- Effluent discharge from an ATS to a receiving water is conditional upon the favorable results of full-scale whole effluent bioassay/toxicity testing for batch treatment systems and upon chemical residuals testing for flow-through systems.
- Contact the RWQCB for a list of treatment chemicals that may be pre-approved for use.

Active Treatment System Design Considerations

The design and operation of an ATS should take into consideration the factors that determine optimum, cost-effective performance. While site characteristics will influence system design, it is important to recognize the following overriding considerations:

- The right chemical must be used at the right dosage. A dosage that is either too low or too high will not produce the lowest turbidity. There is an optimum dosage rate. This is a situation where the adage “adding more is always better” is not the case.
- The coagulant must be mixed rapidly into the water to insure proper dispersion.
- The mixing system for batch treatment must be sized to provide adequate mixing for the design storage volume. Lack of adequate mixing during the flocculation phase results in flocs that are too small and/or insufficiently dense. Too much mixing can rapidly destroy floc as it is formed.
- Care must be taken in the design of the withdrawal system to minimize outflow velocities and to prevent floc discharge. The discharge should be directed through a filtration system such as sand, bag, or cartridge filter that would catch any unintended floc discharge.
- ATS is also regulated for pH of the discharge. A pH-adjusting chemical should be added into the treated water to control pH if the selected coagulant requires alteration of the pH of the discharge outside of the acceptable range.

Active Treatment System Design

ATS can be designed as batch treatment systems using either ponds or portable trailer-mounted tanks, or as flow-through systems using any number of proprietary designed systems.

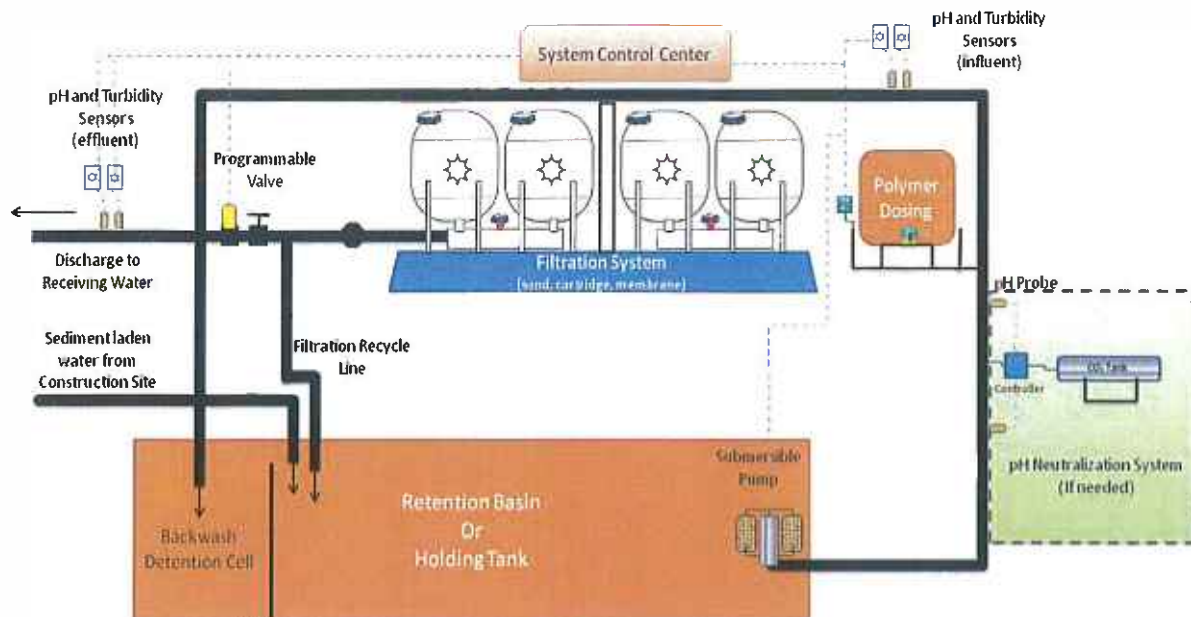


Figure has been adapted from Port of Seattle response to Washington Dept. of Ecology Action Order 2948

Batch Treatment

Batch Treatment systems consist of the stormwater collection system (either temporary diversion or the permanent site drainage system); a sediment basin, trap or holding tanks; pumps; a chemical feed system; treatment cells; and, interconnecting piping.

Batch treatment systems should use a minimum of two lined treatment cells. Multiple treatment cells allow for clarification of treated water while other cells are being filled or emptied. Treatment cells may be basins, traps, or tanks. Portable tanks may also be suitable for some sites.

The following equipment should be located in a secured, covered location:

- The chemical injector
- Secondary containment for acid, caustic, buffering compound, and treatment chemical
- Emergency shower and eyewash
- Monitoring equipment which consists of a pH meter and a turbidimeter (if not already within the instrumentation panel of the chemical injector)

Flow-through Treatment

At a minimum, a flow-through ATS system consists of the stormwater collection system (either temporary diversion or the permanent site drainage system), an untreated stormwater storage pond or holding tank, and a chemically enhanced filtration system.

Stormwater is collected at interception point(s) on the site and is diverted by gravity or by pumping to an untreated stormwater storage pond or other untreated stormwater holding area.

The stormwater is stored until treatment occurs. It is important that the holding pond be large enough to provide adequate storage.

Stormwater is then pumped from the untreated stormwater storage pond to the chemically enhanced filtration system where polymer is added. Adjustments to pII may be necessary before chemical addition. The filtration system continually monitors the stormwater for turbidity and pH. If the discharge water is out of the acceptable turbidity or pH range, the water is recycled to the untreated stormwater pond (or holding tank) where it can be retreated. Flow through systems must ensure that:

- Cumulative flow volume shall be recorded daily. The data recording system shall have the capacity to record a minimum of seven days of continuous data.
- Instrumentation systems are interfaced with system control to provide auto shutoff or recirculation in the event that effluent measurements exceed turbidity or pH.
- Upon system upset, power failure, or other catastrophic event, the ATS will default to a recirculation mode or safe shut down.
- The instrumentation system provides a method for controlling coagulant dose, to prevent potential overdosing.

Sizing Criteria

An ATS shall be designed and approved by a Certified Professional in Erosion and Sediment Control (CPESC), a Certified Professional in Storm Water Quality (CPSWQ); a California registered civil engineer; or any other California registered engineer.

ATS must be designed to capture and treat (within 72 hours) runoff from the 10-year 24-hour storm event. The runoff volume of the watershed area to be treated from this size storm event is required to be calculated using the Rational Method with a runoff coefficient of 1.

If sediment basins are used to capture flow-through or batch treatment, see SE-2, Sediment Basin, for design criteria. Bypass should be provided around the ATS to accommodate extreme storm events. Primary settling should be encouraged in the sediment basin/storage pond. A forebay with access for maintenance may be beneficial.

The permissible discharge rate governed by potential downstream effect should be used to calculate the recommended size of the treatment cells. Local requirements related to Phase I or Phase II NPDES permit thresholds should be considered in developing maximum discharge rates the ATS Plan.

Costs

Costs for ATS may be significant due to equipment rental requirements and cost of chemicals. ATS cost is lower on a treated unit-basis for large construction sites with large volumes of runoff.

Inspection and Maintenance

ATS must be operated and maintained by individuals with experience in their use and trained in accordance with training requirements below. ATS should be monitored continuously while in

use. A designated responsible person shall be on site daily at all times during treatment operations. Daily on-site visual monitoring of the system for proper performance shall be conducted and recorded in the project data log. The name, phone number, and training documentation of the person responsible for system operation and monitoring shall be included in the project data log.

The following monitoring requirements and results should be recorded in the data log:

Operational and Compliance Monitoring

- Effluent flow rate and volume shall be continuously monitored and recorded at 15- minute or less intervals.
- Influent and effluent pH must be continuously monitored and recorded at 15-minute or less intervals.
- Influent and effluent turbidity (expressed in NTU) must be continuously monitored and recorded at 15-minute or less intervals.
- The type and amount of chemical used for pH adjustment, if any, shall be monitored and recorded.
- Dose rate of chemical used in the ATS system (expressed in mg/L) shall be monitored and reported 15-minutes after startup and every 8 hours of operation.
- Laboratory duplicates – monthly laboratory duplicates for residual coagulant analysis must be performed and records shall be maintained onsite.
- Effluent shall be monitored and recorded for residual chemical/additive levels.
- If a residual chemical/additive test does not exist and the ATS is operating in a batch treatment mode of operation refer to the toxicity monitoring requirements below.

Toxicity Monitoring

Batch Treatment

Toxicity testing for systems operated in batch treatment mode should be made in accordance with the following:

- Acute toxicity testing on effluent samples representing effluent from each batch prior to discharge shall be undertaken. All bioassays shall be sent to a laboratory certified by the Department of Health Services (DHIS) Environmental Laboratory Accreditation Program (ELAP). The required field of testing number for Whole Effluent Toxicity (WET) testing is E113.
- Acute toxicity tests shall be conducted with the following species and protocols. The methods to be used in the acute toxicity testing shall be those outlined for a 96-hour acute test in “Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms, USEPA-841-R-02-012” for Fathead minnow, *Pimephales promelas*. Rainbow trout, *Oncorhynchus mykiss*, may be used as a substitute for fathead minnow.

All toxicity tests shall meet quality assurance criteria and test acceptability criteria in the most recent versions of the EPA test method for WET testing.

Flow-through Treatment

Toxicity testing for systems operated in flow-through treatment mode should be made in accordance with the following:

- A residual chemical test method shall be used that has a method detection limit (MDL) of 10% or less than the maximum allowable threshold concentration (MATC) for the specific coagulant in use and for the most sensitive species of the chemical used. The MATC is equal to the geometric mean of the No Observed Effect Concentration (NOEC) and Lowest Observed Effect Concentration (LOEC) Acute and Chronic toxicity results for most sensitive species determined for the specific coagulant.
- The residual chemical test method shall produce a result within one hour of sampling.
- A California State certified laboratory shall validate the selected residual chemical test. Specifically, the lab will review the test protocol, test parameters, and the detection limit of the coagulant. The discharger shall electronically submit this documentation as part of the ATS Plan.

Numeric Effluent Limit (NEL) Compliance:

All chemically treated stormwater must be sampled and tested for compliance with pH and turbidity limits. These limits have been established by the Construction General Permit. Sampling and testing for other pollutants may also be necessary at some sites. Turbidity limits have been set as 10 NTU as a daily flow-weighted average or 20 NTU from a single sample. pH must be within the range of 6.0 to 9.0 standard units. It is often possible to discharge treated stormwater that has a lower turbidity than the receiving water and that matches the pH.

Treated stormwater samples and measurements should be taken from the discharge pipe or another location representative of the nature of the treated stormwater discharge. Samples used for determining compliance with the water quality standards in the receiving water should not be taken from the treatment pond prior to decanting. Compliance with the water quality standards is determined in the receiving water.

Operator Training:

Operators shall have training specific to using an ATS and liquid coagulants for stormwater discharges in California. The training shall be in the form of a formal class with a certificate and requirements for testing and certificate renewal. Training shall include a minimum of eight hours classroom and 32 hours field training.

Standard BMPs:

Erosion and sediment control BMPs should be implemented throughout the site to prevent erosion and discharge of sediment to the ATS. Some types of chemical coagulation and flocculation are only achievable in water below a certain turbidity; therefore, minimizing the amount of sediment reaching the system will increase the likelihood of meeting effluent limits and will potentially lower costs of chemical dosing.

Sediment Removal and Disposal

- Sediment shall be removed from the storage or treatment cells as necessary to ensure that the cells maintain their required water storage (i.e., volume) capability.
- Handling and disposal of all solids generated during ATS operations shall be done in accordance with all local, state, and federal laws and regulations.
- If sediment is determined to be non-toxic, it may be incorporated into the site away from drainages.

References

Engineering and Design – Precipitation/Coagulation/Flocculation. United States Army Corps of Engineers, EM 1110-1-4012, 2001.

Evaluation of Active Treatment Systems (ATS) for Construction Site Runoff. California Building and Industry Association (prepared by Geosyntec Consultants), 2008.

Stormwater Management Manual for Western Washington, Volume II – Construction Stormwater Pollution Prevention, Washington State Department of Ecology, August 2001.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Manufactured Linear Sediment Controls (MLSC)

SE-12



Description and Purpose

Manufactured linear sediment controls (MLSC) are pre-manufactured devices that are typically specified and installed for drainage and sediment control on the perimeter of disturbed sites or stockpiles and as check dams within channels. Typically, MLSCs can be reused.

This fact sheet is intended to provide guidance on BMP selection and implementation of proprietary or vendor-supplied products, for sediment control. Products should be evaluated for project-specific implementation and used if determined to be appropriate by the SWPPP Preparer.

Suitable Applications

MLSCs are generally used in areas as a substitute for fiber rolls and silt fences in sediment control applications to slow down runoff water, divert drainage or contain fines and sediment. MLSCs are a linear control and application suitability varies based on the specific product type. They may be suitable:

- On paved surfaces for perimeter protection.
- As check structures in channels.
- Along the perimeter of disturbed sites in lieu of silt fence.

Categories

EC	Erosion Control	<input checked="" type="checkbox"/>
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	<input checked="" type="checkbox"/>
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

- SE-1 Silt Fence
- SE-5 Fiber Roll
- SE-6 Gravel Bag Berm
- SE-8 Sandbag Barrier

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Manufactured Linear Sediment Controls (MLSC)

SE-12

- At operational storm drains as a form of inlet protection.
- Around temporary stockpiles or material/equipment storage areas.
- At the interface between graveled driveways and pavement.
- Along the toe of exposed and erodible slopes.

Limitations

- Limitations vary by product. Product manufacturer's printed product use instructions should be reviewed by the SWPPP Preparer to determine the project-specific applicability of MLSCs.

Implementation

General

When appropriately placed, MLSCs intercept and slow sheet flow runoff, causing temporary ponding. The temporary ponding provides quiescent conditions allowing sediment to settle. The device is porous, which allows the ponded runoff to flow slowly through the device, releasing the runoff as sheet flows. Generally, MLSCs should be used in conjunction with temporary soil stabilization controls up-slope to provide an effective combination of erosion and sediment control.

Design and Layout

- MLSCs used on soil should be trenched or attached to the ground per manufacturer specifications in a manner that precludes runoff or ponded water from flowing around or under the device.
- MLSCs designed for use on asphalt or concrete may be attached using a variety of methods, including nailing the device to the pavement, or using a high strength adhesive.
- Follow manufacturer written specifications when installing MLSCs.
- Allow sufficient space up-slope from the silt dike to allow ponding, and to provide room for sediment storage.
- For installation near the toe of the slope, MLSCs should be set back 3 feet from the slope toe to facilitate cleaning. Where site conditions do not allow set back, the sediment control may be constructed on the toe of the slope. To prevent flows behind the barrier, sand or gravel bags can be placed perpendicular and between the sediment control and slope to serve as a barrier to parallel flow.
- Drainage area should not exceed 5 acres.

Materials

- Several manufactured products are available. The following search terms or combination of terms can be used with an internet search engine to find manufactured linear sediment controls:

Manufactured Linear Sediment Controls (MLSC)

SE-12

- “silt barrier”
- “reusable silt fence”
- “silt fence alternative” or
- “perimeter sediment control”

Costs

Manufacturers should be contacted directly for current pricing.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Reshape or replace sections of damaged MLSCs as needed.
- Repair washouts or other damage as needed.
- Sediment that accumulates behind the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Remove MLSCs when no longer needed. Remove sediment accumulation and clean, re-grade, and stabilize the area. Removed sediment should be incorporated in the project or disposed of properly.

References

City of Elko Construction Site Best Management Practices Handbook, December 2005.

Construction Site Best Management Practices Handbook, June 2008 Update, Truckee Meadows Regional Stormwater Quality Management Program, June 2008.

Complying with the Edwards Aquifer Rules Technical Guidance on Best Management Practices, Texas Commission on Environmental Quality, Revised July 2005, Addendum Sheet, January 26, 2011.

Stormwater Management Manual for Western Washington Volume II, Construction Stormwater Pollution Prevention, Washington State Department of Ecology, February 2005.



Description and Purpose

Biofilter bags, or bio-bags, are a multi-purpose sediment control BMP consisting of a plastic mesh bag filled with 100% recycled wood product waste. Biofilter bags come in a variety of sizes (30" x 18" and 30" x 9" being common) and generally have between 1-2 cubic yards of recycled wood waste (or wood chips). Biofilter bags work by detaining flow and allowing a slow rate of discharge through the wood media. This action removes suspended sediment through gravity settling of the detained water and filtration within the bag.

Suitable Applications

Biofilter bags are a short-term BMP that can be rapidly deployed, maintained, and replaced. Biofilter bags can be an effective short-term solution to place in developed rills to prevent further erosion until permanent measures can be established. Suitable short-term applications include:

- As a linear sediment control measure:
 - Below the toe of slopes and erodible slopes
 - Below other small cleared areas
 - Along the perimeter of a site (with low-expected flow)
 - Down slope of exposed soil areas
 - Around temporary stockpiles and spoil areas
 - Parallel to a roadway to keep sediment off paved areas

Categories

EC	Erosion Control	
SE	Sediment Control	<input checked="" type="checkbox"/>
TR	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

- SE-1 Silt Fence
- SE-4 Check Dams
- SE-5 Fiber Roll
- SE-6 Gravel Bag Berm
- SE-8 Sandbag Barrier
- SE-10 Storm Drain Inlet Protection

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- Along streams and channels
- As linear erosion control measure:
 - Along the face and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow
 - At the top of slopes to divert runoff away from disturbed slopes
 - As check dams across mildly sloped construction roads
- Inlet Protection (See SE-10)
- Supplement to silt fences or other sediment control devices

Limitations

- Short life-span (maximum usefulness of 2-3 months and should be replaced more frequently if needed); regular maintenance and replacement required to ensure effectiveness. Bags will rapidly fill with sediment and reduce permeability.
- Easily damaged by construction vehicles.
- If not properly staked, will fail on slope applications.
- If improperly installed can allow undercutting or side-cutting flow.
- Not effective where water velocities or volumes are high.
- Potentially buoyant and easily displaced if not properly installed.

Implementation

General

Biofilter bags are a relatively low cost temporary BMP that are easily deployed and have a simple installation that can be performed by hand. Without proper installation, however, biofilter bags can fail due to their light weight, potential displacement, and multiple joint locations. One of the benefits of utilizing biofilter bags is that the media (wood-product) can be recycled or used onsite when no longer needed (where acceptable).

Design and Layout – Linear control

- Locate biofilter bags on level contours.
 - Slopes between 20:1 and 4:1 (H:V): Biofilter bags should be placed at a maximum interval of 20 ft, with the first row near the slope toe.
 - Slopes between 4:1 and 2:1 (H:V): Biofilter bags should be placed at a maximum interval of 15 ft, with the first row near the slope toe.
 - Slopes 2:1 (H:V) or steeper: Biofilter bags should be placed at a maximum interval of 10 ft., with the first row placed the slope toe.

- Turn the ends of the biofilter bag barriers up slope to prevent runoff from going around the berm.
- Allow sufficient space up slope from the biofilter bag berm to allow ponding, and to provide room for sediment storage.
- Stake biofilter bags into a 1 to 2 in. deep trench with a width equal to the bag.
 - Drive one stake at each end of the bag.
 - Use wood stakes with a nominal classification of 0.75 by 0.75 in. and minimum length of 24 in.
- Biofilter bags should be overlapped (6 in.), not abutted.

Costs

Pre-filled biofilter bags cost approximately \$3.20-\$4.50 per bag, dependent upon size (Adjusted for inflation, 2016 dollars, by Tetra Tech, Inc.).

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Biofilter bags exposed to sunlight will need to be replaced every two to three months due to degrading of the bags.
- Reshape or replace biofilter bags as needed.
- Repair washouts or other damage as needed.
- Sediment that is retained by the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Remove biofilter bag berms when no longer needed. Remove sediment accumulation and clean, re-grade, and stabilize the area. Biofilter media may be used on-site, if allowed.

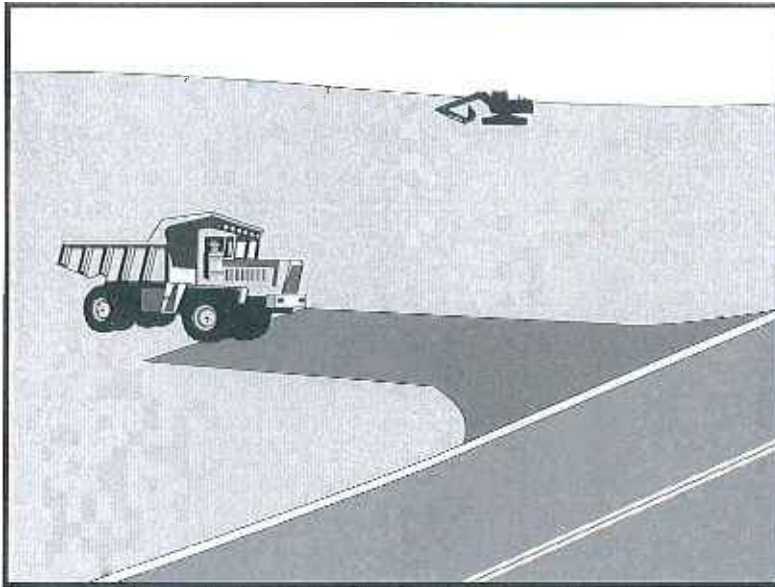
References

Catalog of Stormwater Best Management Practices for Idaho Cities and Counties. Volume 2, Section 7, BMP 34 – Biofilter Bags, Idaho Department of Environmental Quality, 2005.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stabilized Construction Entrance/Exit TC-1



Categories

EC	Erosion Control	<input checked="" type="checkbox"/>
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	<input checked="" type="checkbox"/>
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

A stabilized construction access is defined by a point of entrance/exit to a construction site that is stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles.

Suitable Applications

Use at construction sites:

- Where dirt or mud can be tracked onto public roads.
- Adjacent to water bodies.
- Where poor soils are encountered.
- Where dust is a problem during dry weather conditions.

Limitations

- Entrances and exits require periodic top dressing with additional stones.
- This BMP should be used in conjunction with street sweeping on adjacent public right of way.
- Entrances and exits should be constructed on level ground only.
- Stabilized construction entrances are rather expensive to construct and when a wash rack is included, a sediment trap of some kind must also be provided to collect wash water runoff.

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Stabilized Construction Entrance/Exit TC-1

Implementation

General

A stabilized construction entrance is a pad of aggregate underlain with filter cloth located at any point where traffic will be entering or leaving a construction site to or from a public right of way, street, alley, sidewalk, or parking area. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking of sediment onto public rights of way or streets. Reducing tracking of sediments and other pollutants onto paved roads helps prevent deposition of sediments into local storm drains and production of airborne dust.

Where traffic will be entering or leaving the construction site, a stabilized construction entrance should be used. NPDES permits require that appropriate measures be implemented to prevent tracking of sediments onto paved roadways, where a significant source of sediments is derived from mud and dirt carried out from unpaved roads and construction sites.

Stabilized construction entrances are moderately effective in removing sediment from equipment leaving a construction site. The entrance should be built on level ground. Advantages of the Stabilized Construction Entrance/Exit is that it does remove some sediment from equipment and serves to channel construction traffic in and out of the site at specified locations. Efficiency is greatly increased when a washing rack is included as part of a stabilized construction entrance/exit.

Design and Layout

- Construct on level ground where possible.
- Select 3 to 6 in. diameter stones.
- Use minimum depth of stones of 12 in. or as recommended by soils engineer.
- Construct length of 50 ft or maximum site will allow, and 10 ft minimum width or to accommodate traffic.
- Rumble racks constructed of steel panels with ridges and installed in the stabilized entrance/exit will help remove additional sediment and to keep adjacent streets clean.
- Provide ample turning radii as part of the entrance.
- Limit the points of entrance/exit to the construction site.
- Limit speed of vehicles to control dust.
- Properly grade each construction entrance/exit to prevent runoff from leaving the construction site.
- Route runoff from stabilized entrances/exits through a sediment trapping device before discharge.
- Design stabilized entrance/exit to support heaviest vehicles and equipment that will use it.

Stabilized Construction Entrance/Exit TC-1

- Select construction access stabilization (aggregate, asphaltic concrete, concrete) based on longevity, required performance, and site conditions. Do not use asphalt concrete (AC) grindings for stabilized construction access/roadway.
- If aggregate is selected, place crushed aggregate over geotextile fabric to at least 12 in. depth, or place aggregate to a depth recommended by a geotechnical engineer. A crushed aggregate greater than 3 in. but smaller than 6 in. should be used.
- Designate combination or single purpose entrances and exits to the construction site.
- Require that all employees, subcontractors, and suppliers utilize the stabilized construction access.
- Implement SE-7, Street Sweeping and Vacuuming, as needed.
- All exit locations intended to be used for more than a two-week period should have stabilized construction entrance/exit BMPs.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMPs are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect local roads adjacent to the site daily. Sweep or vacuum to remove visible accumulated sediment.
- Remove aggregate, separate and dispose of sediment if construction entrance/exit is clogged with sediment.
- Keep all temporary roadway ditches clear.
- Check for damage and repair as needed.
- Replace gravel material when surface voids are visible.
- Remove all sediment deposited on paved roadways within 24 hours.
- Remove gravel and filter fabric at completion of construction

Costs

Average annual cost for installation and maintenance may vary from \$1,500 to \$6,100 each, averaging \$3,100 per entrance. Costs will increase with addition of washing rack and sediment trap. With wash rack, costs range from \$1,500 - \$7,700 each, averaging \$4,600 per entrance (All costs adjusted for inflation, 2016 dollars, by Tetra Tech Inc.

References

Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, May 1995.

Stabilized Construction Entrance/Exit TC-1

National Management Measures to Control Nonpoint Source Pollution from Urban Areas, USEPA Agency, 2002.

Proposed Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, Work Group Working Paper, USEPA, April 1992.

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

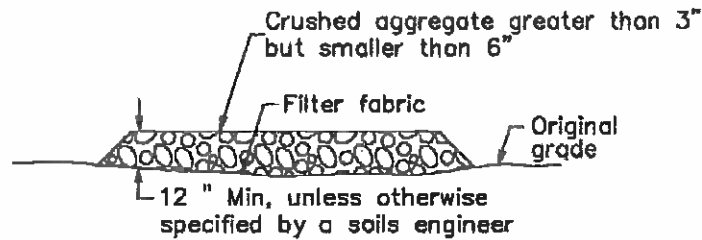
Stormwater Management of the Puget Sound Basin, Technical Manual, Publication #91-75, Washington State Department of Ecology, February 1992.

Virginia Erosion and Sedimentation Control Handbook, Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, 1991.

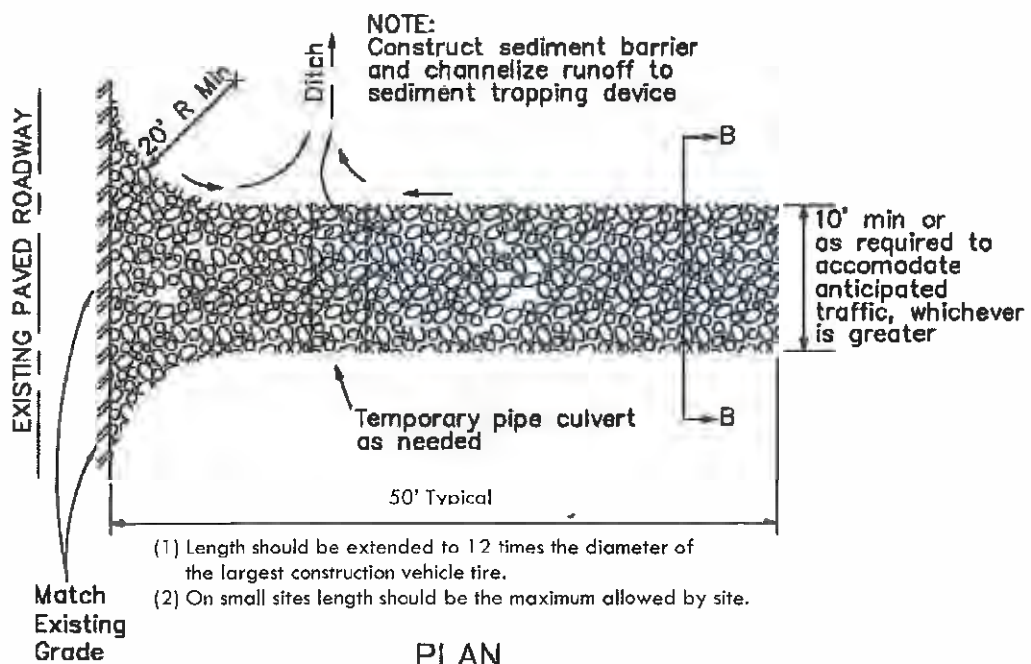
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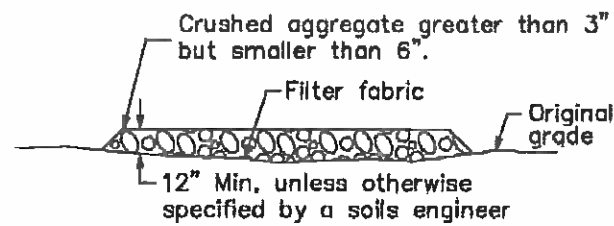
Stabilized Construction Entrance/Exit TC-1



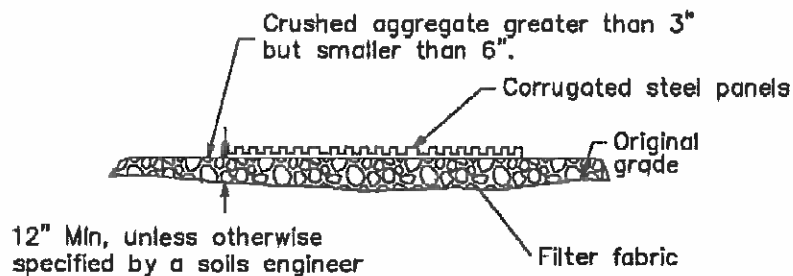
SECTION B-B
NTS



Stabilized Construction Entrance/Exit TC-1

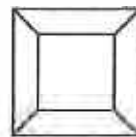


SECTION B-B
NTS

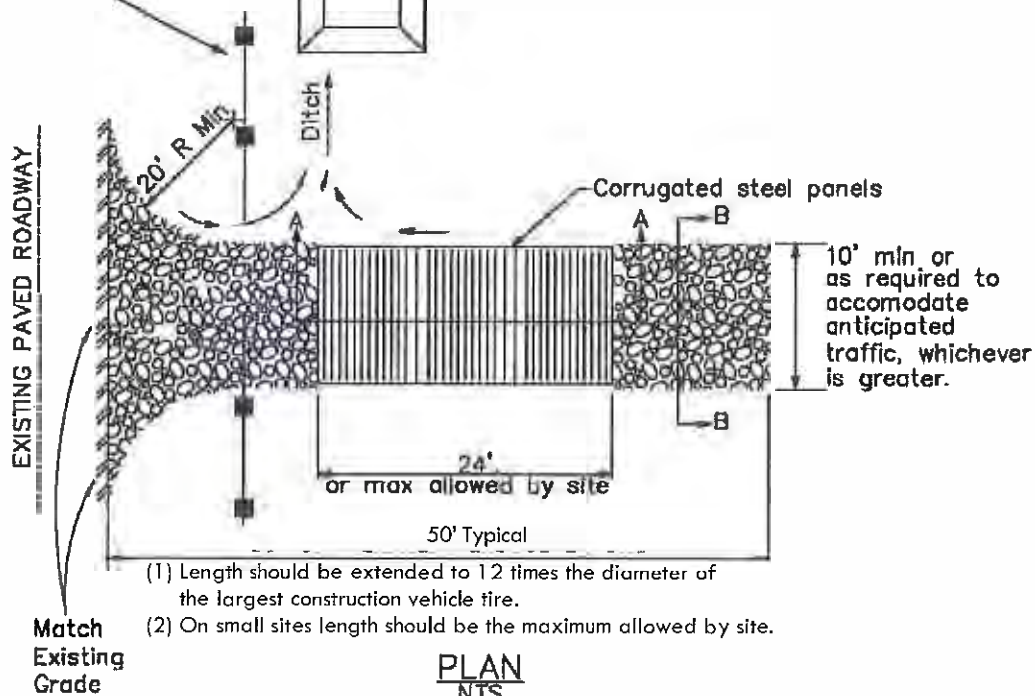


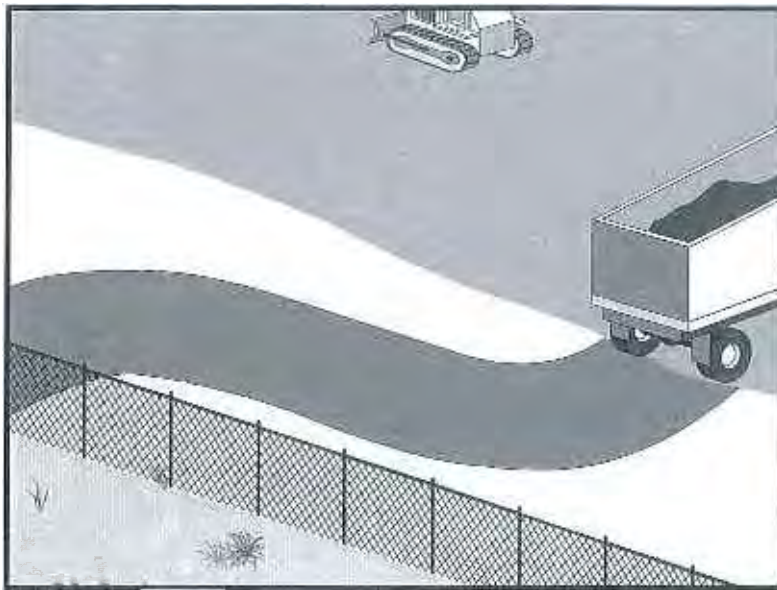
SECTION A-A
NOT TO SCALE

NOTE:
Construct sediment barrier and channelize runoff to sediment trapping device



Sediment trapping device





Categories

EC	Erosion Control	<input checked="" type="checkbox"/>
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	<input checked="" type="checkbox"/>
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ **Primary Objective**
- ☒ **Secondary Objective**

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

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Description and Purpose

Access roads, subdivision roads, parking areas, and other onsite vehicle transportation routes should be stabilized immediately after grading, and frequently maintained to prevent erosion and control dust.

Suitable Applications

This BMP should be applied for the following conditions:

- Temporary Construction Traffic:
 - Phased construction projects and offsite road access
 - Construction during wet weather
- Construction roadways and detour roads:
 - Where mud tracking is a problem during wet weather
 - Where dust is a problem during dry weather
 - Adjacent to water bodies
 - Where poor soils are encountered

Limitations

- The roadway must be removed or paved when construction is complete.



- Certain chemical stabilization methods may cause stormwater or soil pollution and should not be used. See WE-1, Wind Erosion Control.
- Management of construction traffic is subject to air quality control measures. Contact the local air quality management agency.
- Materials will likely need to be removed prior to final project grading and stabilization.
- Use of this BMP may not be applicable to very short duration projects.

Implementation

General

Areas that are graded for construction vehicle transport and parking purposes are especially susceptible to erosion and dust. The exposed soil surface is continually disturbed, leaving no opportunity for vegetative stabilization. Such areas also tend to collect and transport runoff waters along their surfaces. During wet weather, they often become muddy quagmires that generate significant quantities of sediment that may pollute nearby streams or be transported offsite on the wheels of construction vehicles. Dirt roads can become so unstable during wet weather that they are virtually unusable.

Efficient construction road stabilization not only reduces onsite erosion but also can significantly speed onsite work, avoid instances of immobilized machinery and delivery vehicles, and generally improve site efficiency and working conditions during adverse weather.

Installation/Application Criteria

Permanent roads and parking areas should be paved as soon as possible after grading. As an alternative where construction will be phased, the early application of gravel or chemical stabilization may solve potential erosion and stability problems. Temporary gravel roadway should be considered during the rainy season and on slopes greater than 5%.

Temporary roads should follow the contour of the natural terrain to the maximum extent possible. Slope should not exceed 15%. Roadways should be carefully graded to drain transversely. Provide drainage swales on each side of the roadway in the case of a crowned section or one side in the case of a super elevated section. Simple gravel berms without a trench can also be used.

Installed inlets should be protected to prevent sediment laden water from entering the storm sewer system (SE-10, Storm Drain Inlet Protection). In addition, the following criteria should be considered.

- Road should follow topographic contours to reduce erosion of the roadway.
- The roadway slope should not exceed 15%.
- Chemical stabilizers or water are usually required on gravel or dirt roads to prevent dust (WE-1, Wind Erosion Control).
- Properly grade roadway to prevent runoff from leaving the construction site.
- Design stabilized access to support heaviest vehicles and equipment that will use it.

- Stabilize roadway using aggregate, asphalt concrete, or concrete based on longevity, required performance, and site conditions. The use of cold mix asphalt or asphalt concrete (AC) grindings for stabilized construction roadway is not allowed.
- Coordinate materials with those used for stabilized construction entrance/exit points.
- If aggregate is selected, place crushed aggregate over geotextile fabric to at least 12 in. depth. A crushed aggregate greater than 3 in. but smaller than 6 in. should be used.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Keep all temporary roadway ditches clear.
- When no longer required, remove stabilized construction roadway and re-grade and repair slopes.
- Periodically apply additional aggregate on gravel roads.
- Active dirt construction roads are commonly watered three or more times per day during the dry season.

Costs

Gravel construction roads are moderately expensive, but cost is often balanced by reductions in construction delay. No additional costs for dust control on construction roads should be required above that needed to meet local air quality requirements.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Coastal Nonpoint Pollution Control Program; Program Development and Approval Guidance, Working Group, Working Paper; USEPA, April 1992.

Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, May 1995.

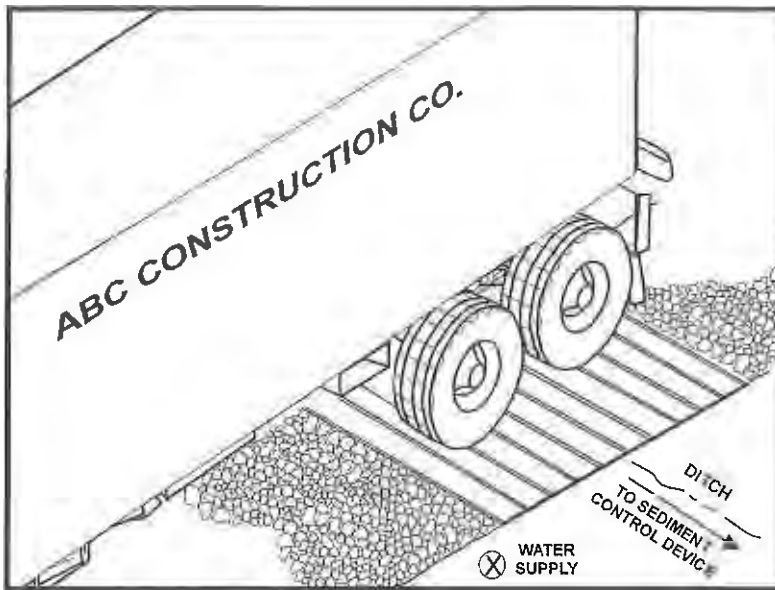
Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.

Stormwater Management of the Puget Sound Basin, Technical Manual, Publication #91-75, Washington State Department of Ecology, February 1992.

Virginia Erosion and Sedimentation Control Handbook, Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, 1991.

Water Quality Management Plan for the Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency, November 1988.



Categories

EC	Erosion Control	
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	<input checked="" type="checkbox"/>
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

TC-1 Stabilized Construction Entrance/Exit

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Description and Purpose

A tire wash is an area located at stabilized construction access points to remove sediment from tires and undercarriages and to prevent sediment from being transported onto public roadways.

Suitable Applications

Tire washes may be used on construction sites where dirt and mud tracking onto public roads by construction vehicles may occur.

Limitations

- The tire wash requires a supply of wash water.
- A turnout or doublewide exit is required to avoid having entering vehicles drive through the wash area.
- Do not use where wet tire trucks leaving the site leave the road dangerously slick.

Implementation

- Incorporate with a stabilized construction entrance/exit. See TC-1, Stabilized Construction Entrance/Exit.
- Construct on level ground when possible, on a pad of coarse aggregate greater than 3 in. but smaller than 6 in. A geotextile fabric should be placed below the aggregate.
- Wash rack should be designed and constructed/manufactured for anticipated traffic loads.



- Provide a drainage ditch that will convey the runoff from the wash area to a sediment trapping device. The drainage ditch should be of sufficient grade, width, and depth to carry the wash runoff.
- Use hoses with automatic shutoff nozzles to prevent hoses from being left on.
- Require that all employees, subcontractors, and others that leave the site with mud caked tires and undercarriages to use the wash facility.
- Implement SC-7, Street Sweeping and Vacuuming, as needed.

Costs

Costs are low for installation of wash rack.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur.
- Remove accumulated sediment in wash rack and/or sediment trap to maintain system performance.
- Inspect routinely for damage and repair as needed.

References

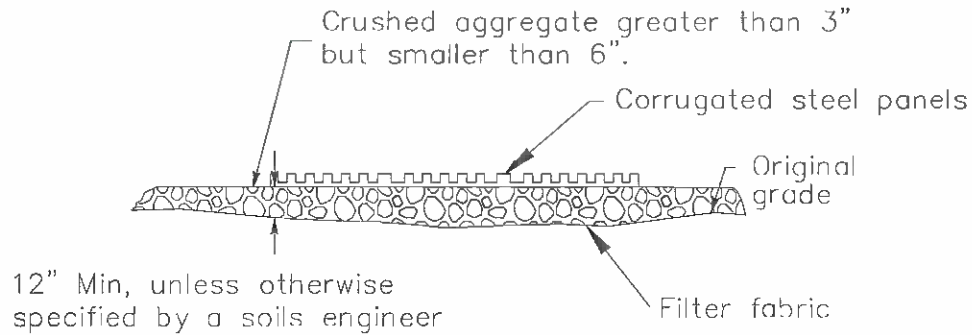
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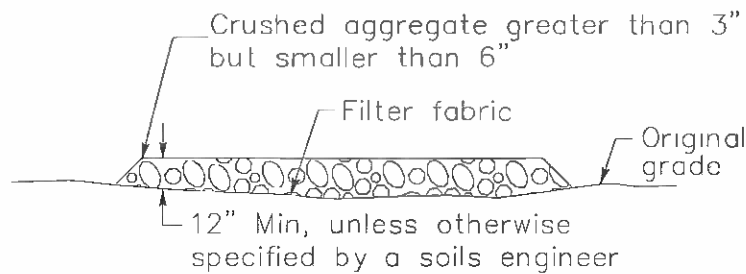
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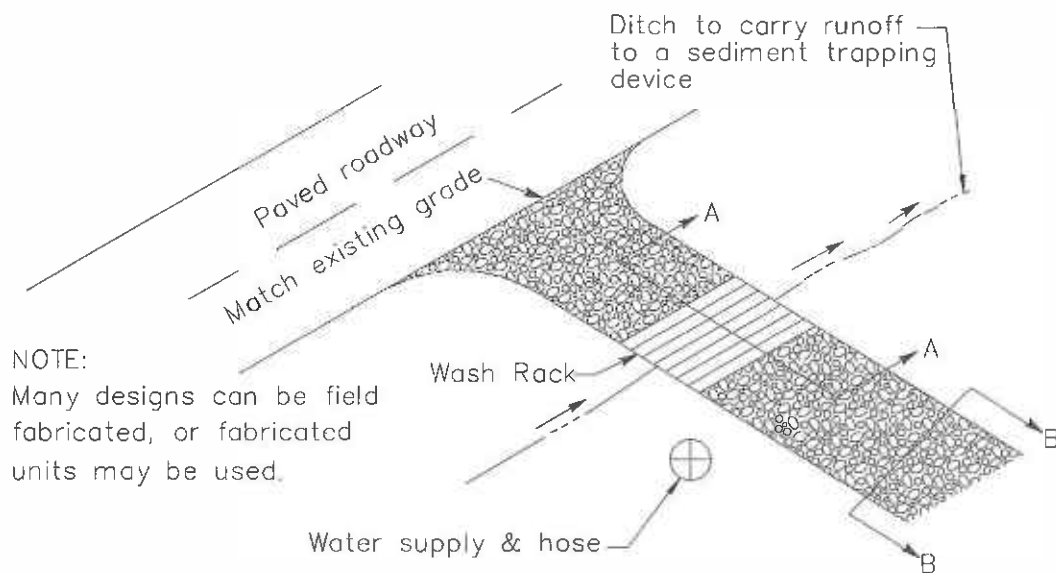
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SECTION A-A
NOT TO SCALE



SECTION B-B
NTS



TYPICAL TIRE WASH
NOT TO SCALE

Section 4

Non-Stormwater Management and Material Management BMPs

4.1 Non-Stormwater Management BMPs

The [discharge](#) of materials other than [stormwater](#) and authorized [non-stormwater discharges](#) is prohibited by NPDES regulations as well as other local codes and ordinances. It is recognized that certain authorized non-stormwater discharges may be necessary for the completion of construction projects. Such discharges include, but are not limited to, irrigation of vegetative [erosion control](#) measures, and pipe flushing and testing.

Non-stormwater management [BMPs](#) are [source control BMPs](#) that prevent pollution by limiting or reducing potential [pollutants](#) at their source or eliminating off-site discharge. These practices involve day-to-day operations of the construction site and are usually under the control of the contractor. These BMPs are also referred to as “good housekeeping practices,” which involve keeping a clean, orderly construction site.

Non-stormwater management BMPs also include procedures and practices designed to minimize or eliminate the discharge of pollutants from vehicle and equipment cleaning, fueling, and maintenance operations to stormwater drainage systems or to watercourses.

Table 4-1 of this handbook lists the non-stormwater management BMPs. All these BMPs must be implemented depending on the conditions and applicability of deployment described as part of the BMP. The key to implementing these BMPs is to maintain a clean site and keep water, runoff, and run-on away from potential pollutants, including bare soil. In general, conduct construction activities so that: potential pollutants are not discharged directly to drainage systems; generation of potential pollutants is limited; and pollutants that are generated are contained and cleaned up immediately and are therefore not available for later discharge. These BMPs are fundamental to water quality protection and all sites must implement non-stormwater BMPs appropriate for the construction activities being performed.

Table 4-1 Non-Stormwater Management BMPs

BMP#	BMP Name
NS-1	Water Conservation Practices ²
NS-2	Dewatering Operations ^{1, 3}
NS-3	Paving and Grinding Operations ^{1, 3}
NS-4	Temporary Stream Crossing ^{1, 2}
NS-5	Clear Water Diversion ²
NS-6	Illicit Connection/Discharge ^{1, 2}
NS-7	Potable Water/Irrigation ^{1, 2}
NS-8	Vehicle and Equipment Cleaning ^{1, 2}
NS-9	Vehicle and Equipment Fueling ^{1, 2}
NS-10	Vehicle and Equipment Maintenance ^{1, 2}
NS-11	Pile Driving Operations ^{1, 2}
NS-12	Concrete Curing ^{1, 3}
NS-13	Concrete Finishing ^{1, 3}
NS-14	Material Over Water ^{1, 2}
NS-15	Demolition Adjacent to Water ^{1, 2}
NS-16	Temporary Batch Plants ^{1, 3}
1) BMP fact sheet updated in 2009 2) BMP fact sheet updated in 2011 3) BMP fact sheet updated in 2012	

It is recommended that owners and contractors be vigilant regarding implementation of these BMPs, including making their implementation a condition of continued employment, and part of all prime and subcontract agreements. By doing so, the chance of inadvertent violation by an uncaring individual can be prevented, potentially saving thousands of dollars in fines and project delays. Also, if procedures are not properly implemented and/or if BMPs are compromised then the discharge may be subject to additional sampling and analysis requirements for non-visible pollutants contained in the [General Permit](#). (See Section 2.5.4.2. of this handbook)

4.2 Waste Management and Materials Pollution Control BMPs

[Waste management](#) and materials pollution control BMPs, like non-stormwater management BMPs, are source control BMPs that prevent pollution by limiting or reducing potential pollutants at their source before they come in contact with stormwater. These BMPs also involve day-to-day operations of the construction site, and are under the control of the contractor, and are additional “good housekeeping practices,” which involve keeping a clean, orderly construction site. These BMPs are fundamental to water quality protection and all sites must implement waste management and/or materials pollution control non-stormwater BMPs appropriate for the construction activities being performed.

Waste management consists of implementing procedural and structural BMPs for handling, storing, and disposing of wastes generated by a construction project to prevent the release of waste materials into stormwater runoff or discharges through proper management of the following types of wastes:

- Solid
- Sanitary
- Concrete
- Hazardous
- Equipment-related wastes

Materials pollution control (also called materials handling) consists of implementing procedural and structural BMPs in the handling of, storing, and the using of construction materials. The BMPs are intended to prevent the release of pollutants during stormwater and non-stormwater

Table 4-2 Waste Management and Materials Pollution Control BMPs

BMP#	BMP Name
WM-1	Material Delivery and Storage ¹
WM-2	Material Use ¹
WM-3	Stockpile Management ^{1, 2, 3}
WM-4	Spill Prevention and Control ^{1, 2}
WM-5	Solid Waste Management ^{1, 2}
WM-6	Hazardous Waste Management ^{1, 2}
WM-7	Contaminated Soil Management ^{1, 2}
WM-8	Concrete Waste Management ^{1, 3}
WM-9	Sanitary/ Septic Waste Management ¹
WM-10	Liquid Waste Management ¹
¹) BMP fact sheet updated in 2009 ²) BMP fact sheet updated in 2011 ³) BMP fact sheet updated in 2012	

discharges. The objective is to prevent or reduce the opportunity for contamination of stormwater runoff from construction materials by covering and/or providing secondary containment of storage areas and/or by taking adequate precautions when handling materials. These controls must be implemented for all applicable activities, material usage, and site conditions. The discharge of construction materials or wastes from a site is prohibited.

Table 4-2 of this handbook lists the waste management and materials pollution control BMPs. It is important to note that these BMPs should be implemented depending on the conditions/applicability of deployment described as part of the BMP.

4.3 Fact Sheet Format

A BMP fact sheet is a short document that presents detailed information about a particular BMP. Typically, each fact sheet contains the information outlined in Figure 4-1 of this handbook. Completed fact sheets for each of the above activities are provided in Section 4.4 of this handbook.

The fact sheets also contain side bar presentations with information on BMP categories, targeted constituents, removal effectiveness, and potential alternatives.

Example NS-xx Fact Sheet

Description and Purpose

Suitable Applications

Limitations

Implementation

Costs

Inspection and Maintenance

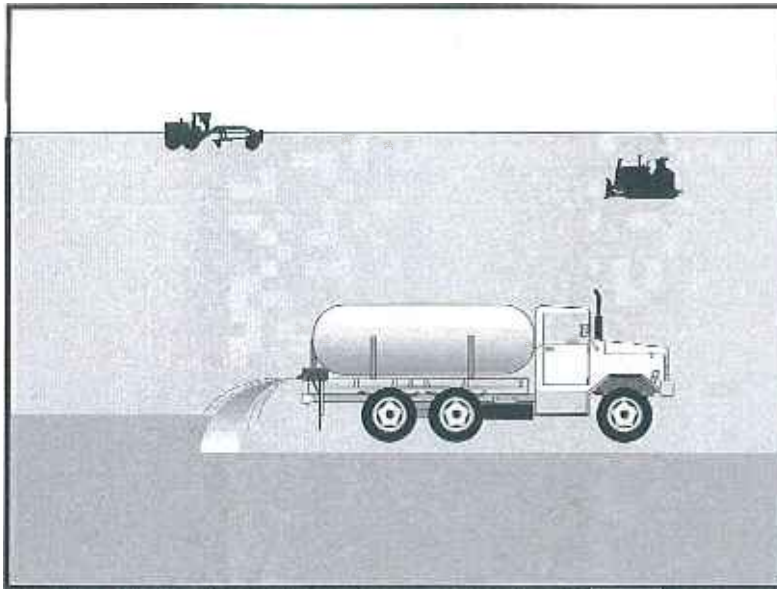
References

Figure 4-1
Example Fact Sheet

4.4 BMP Fact Sheets

BMP fact sheets for non-stormwater management and waste management and materials pollution control follow. The BMP fact sheets are individually page numbered and are suitable for inclusions in SWPPPs. Copies of the fact sheets can be individually downloaded from the CASQA Online BMP Handbook at <http://www.casqa.org>.

BMP fact sheets are guidance and intended to provide a range of information about the BMPs. The BMP fact sheets should not be interpreted as General Permit requirements. CASQA recognizes that there may be alternative public domain and/or proprietary practices performing similar function. Alternative products should be evaluated for project-specific implementation and used if determined to be appropriate by the QSD. Fact sheets do not address site-specific implementation application needs and modifications. The QSD should provide site specific implementation requirements in the SWPPP.



Categories

EC	Erosion Control	
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	
WE	Wind Erosion Control	<input checked="" type="checkbox"/>
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

EC-5 Soil Binders

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Description and Purpose

Wind erosion or dust control consists of applying water or other chemical dust suppressants as necessary to prevent or alleviate dust nuisance generated by construction activities. Covering small stockpiles or areas is an alternative to applying water or other dust palliatives.

California's Mediterranean climate, with a short "wet" season and a typically long, hot "dry" season, allows the soils to thoroughly dry out. During the dry season, construction activities are at their peak, and disturbed and exposed areas are increasingly subject to wind erosion, sediment tracking, and dust generated by construction equipment. Site conditions and climate can make dust control more of an erosion problem than water-based erosion. Additionally, many local agencies, including Air Quality Management Districts, require dust control and/or dust control permits in order to comply with local nuisance laws, opacity laws (visibility impairment) and the requirements of the Clean Air Act. Wind erosion control is required to be implemented at all construction sites greater than 1 acre by the General Permit.

Suitable Applications

Most BMPs that provide protection against water-based erosion will also protect against wind-based erosion and dust control requirements required by other agencies will generally meet wind erosion control requirements for water quality protection. Wind erosion control BMPs are suitable during the following construction activities:



- Construction vehicle traffic on unpaved roads
- Drilling and blasting activities
- Soils and debris storage piles
- Batch drop from front-end loaders
- Areas with unstabilized soil
- Final grading/site stabilization

Limitations

- Watering prevents dust only for a short period (generally less than a few hours) and should be applied daily (or more often) to be effective.
- Over watering may cause erosion and track-out.
- Oil or oil-treated subgrade should not be used for dust control because the oil may migrate into drainageways and/or seep into the soil.
- Chemical dust suppression agents may have potential environmental impacts. Selected chemical dust control agents should be environmentally benign.
- Effectiveness of controls depends on soil, temperature, humidity, wind velocity and traffic.
- Chemical dust suppression agents should not be used within 100 feet of wetlands or water bodies.
- Chemically treated subgrades may make the soil water repellant, interfering with long-term infiltration and the vegetation/re-vegetation of the site. Some chemical dust suppressants may be subject to freezing and may contain solvents and should be handled properly.
- In compacted areas, watering and other liquid dust control measures may wash sediment or other constituents into the drainage system.
- If the soil surface has minimal natural moisture, the affected area may need to be pre-wetted so that chemical dust control agents can uniformly penetrate the soil surface.

Implementation

Dust Control Practices

Dust control BMPs generally stabilize exposed surfaces and minimize activities that suspend or track dust particles. The following table presents dust control practices that can be applied to varying site conditions that could potentially cause dust. For heavily traveled and disturbed areas, wet suppression (watering), chemical dust suppression, gravel asphalt surfacing, temporary gravel construction entrances, equipment wash-out areas, and haul truck covers can be employed as dust control applications. Permanent or temporary vegetation and mulching can be employed for areas of occasional or no construction traffic. Preventive measures include minimizing surface areas to be disturbed, limiting onsite vehicle traffic to 15 mph or less, and controlling the number and activity of vehicles on a site at any given time.

Chemical dust suppressants include: mulch and fiber based dust palliatives (e.g. paper mulch with gypsum binder), salts and brines (e.g. calcium chloride, magnesium chloride), non-petroleum based organics (e.g. vegetable oil, lignosulfonate), petroleum based organics (e.g. asphalt emulsion, dust oils, petroleum resins), synthetic polymers (e.g. polyvinyl acetate, vinyl, acrylic), clay additives (e.g. bentonite, montmorillonite) and electrochemical products (e.g. enzymes, ionic products).

Site Condition	Dust Control Practices							
	Permanent Vegetation	Mulching	Wet Suppression (Watering)	Chemical Dust Suppression	Gravel or Asphalt	Temporary Gravel Construction Entrances/Equipment Wash Down	Synthetic Covers	Minimize Extent of Disturbed Area
Disturbed Areas not Subject to Traffic	X	X	X	X	X			X
Disturbed Areas Subject to Traffic			X	X	X	X		X
Material Stockpiles		X	X	X			X	X
Demolition			X			X	X	
Clearing/Excavation			X	X				X
Truck Traffic on Unpaved Roads			X	X	X	X	X	
Tracking					X	X		

Additional preventive measures include:

- Schedule construction activities to minimize exposed area (see EC-1, Scheduling).
- Quickly treat exposed soils using water, mulching, chemical dust suppressants, or stone/gravel layering.
- Identify and stabilize key access points prior to commencement of construction.
- Minimize the impact of dust by anticipating the direction of prevailing winds.
- Restrict construction traffic to stabilized roadways within the project site, as practicable.
- Water should be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution.
- All distribution equipment should be equipped with a positive means of shutoff.
- Unless water is applied by means of pipelines, at least one mobile unit should be available at all times to apply water or dust palliative to the project.
- If reclaimed waste water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Regional Water Quality

Control Board (RWQCB) requirements. Non-potable water should not be conveyed in tanks or drain pipes that will be used to convey potable water and there should be no connection between potable and non-potable supplies. Non-potable tanks, pipes, and other conveyances should be marked, "NON-POTABLE WATER - DO NOT DRINK."

- Pave or chemically stabilize access points where unpaved traffic surfaces adjoin paved roads.
- Provide covers for haul trucks transporting materials that contribute to dust.
- Provide for rapid clean up of sediments deposited on paved roads. Furnish stabilized construction road entrances and wheel wash areas.
- Stabilize inactive areas of construction sites using temporary vegetation or chemical stabilization methods.

For chemical stabilization, there are many products available for chemically stabilizing gravel roadways and stockpiles. If chemical stabilization is used, the chemicals should not create any adverse effects on stormwater, plant life, or groundwater and should meet all applicable regulatory requirements.

Costs

Installation costs for water and chemical dust suppression vary based on the method used and the length of effectiveness. Annual costs may be high since some of these measures are effective for only a few hours to a few days.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Check areas protected to ensure coverage.
- Most water-based dust control measures require frequent application, often daily or even multiple times per day. Obtain vendor or independent information on longevity of chemical dust suppressants.

References

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

California Air Pollution Control Laws, California Air Resources Board, updated annually.

Construction Manual, Chapter 4, Section 10, "Dust Control"; Section 17, "Watering"; and Section 18, "Dust Palliative", California Department of Transportation (Caltrans), July 2001.

Prospects for Attaining the State Ambient Air Quality Standards for Suspended Particulate Matter (PM₁₀), Visibility Reducing Particles, Sulfates, Lead, and Hydrogen Sulfide, California Air Resources Board, April 1991.

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.



Description and Purpose

Water conservation practices are activities that use water during the construction of a project in a manner that avoids causing erosion and the transport of pollutants offsite. These practices can reduce or eliminate non-stormwater discharges.

Suitable Applications

Water conservation practices are suitable for all construction sites where water is used, including piped water, metered water, trucked water, and water from a reservoir.

Limitations

- None identified.

Implementation

- Keep water equipment in good working condition.
- Stabilize water truck filling area.
- Repair water leaks promptly.
- Washing of vehicles and equipment on the construction site is discouraged.
- Avoid using water to clean construction areas. If water must be used for cleaning or surface preparation, surface should be swept and vacuumed first to remove dirt. This will minimize amount of water required.

Categories

EC	Erosion Control	<input checked="" type="checkbox"/>
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	<input checked="" type="checkbox"/>
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

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- Direct construction water runoff to areas where it can soak into the ground or be collected and used.
- Authorized non-stormwater discharges to the storm drain system, channels, or receiving waters are acceptable with the implementation of appropriate BMPs.
- Lock water tank valves to prevent unauthorized use.

Costs

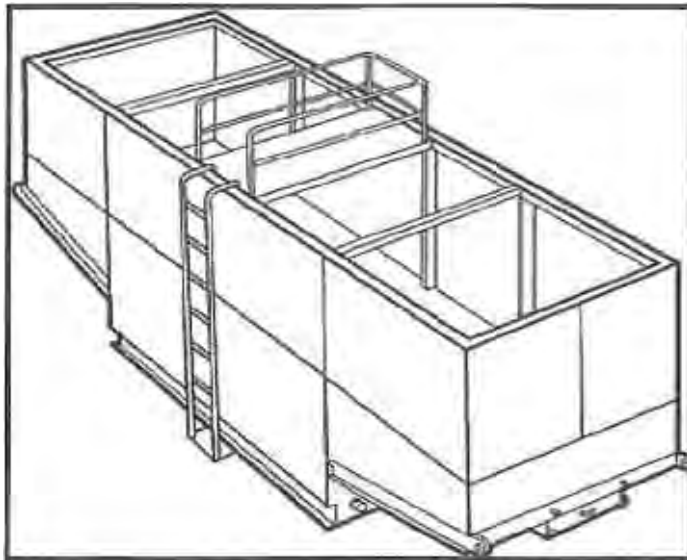
The cost is small to none compared to the benefits of conserving water.

Inspection and Maintenance

- Inspect and verify that activity based BMPs are in place prior to the commencement of authorized non-stormwater discharges.
- Inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges are occurring.
- Repair water equipment as needed to prevent unintended discharges.
 - Water trucks
 - Water reservoirs (water buffalos)
 - Irrigation systems
 - Hydrant connections

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.



Description and Purpose

Dewatering operations are practices that manage the discharge of pollutants when non-stormwater and accumulated precipitation (stormwater) must be removed from a work location to proceed with construction work or to provide vector control.

The General Permit incorporates Numeric Action Levels (NAL) for turbidity (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Discharges from dewatering operations can contain high levels of fine sediment that, if not properly treated, could lead to exceedances of the General Permit requirements or Basin Plan standards.

The dewatering operations described in this fact sheet are not Active Treatment Systems (ATS) and do not include the use of chemical coagulations, chemical flocculation or electrocoagulation.

Suitable Applications

These practices are implemented for discharges of non-stormwater from construction sites. Non-stormwaters include, but are not limited to, groundwater, water from cofferdams, water diversions, and waters used during construction activities that must be removed from a work area to facilitate construction.

Practices identified in this section are also appropriate for implementation when managing the removal of accumulated

Categories

EC	Erosion Control	
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	<input checked="" type="checkbox"/>
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	<input checked="" type="checkbox"/>
Organics	

Potential Alternatives

- SE-5: Fiber Roll
- SE-6: Gravel Bag Berm

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precipitation (stormwater) from depressed areas at a construction site.

Stormwater mixed with non-stormwater should be managed as non-stormwater.

Limitations

- Dewatering operations will require and should comply with applicable local and project-specific permits and regulations. In some areas, all dewatering activities, regardless of the discharge volume, require a dewatering permit.
- Site conditions will dictate design and use of dewatering operations.
- The controls discussed in this fact sheet primarily address sediment. Other secondary pollutant removal benefits are discussed where applicable.
- The controls detailed in this fact sheet only allow for minimal settling time for sediment particles. Use only when site conditions restrict the use of the other control methods.
- Avoid dewatering discharges where possible by using the water for dust control.

Implementation

- A Construction Site Monitoring Plan (CSMP) should be included in the project Stormwater Pollution Prevention Plan (SWPPP).
- Regional Water Quality Control Board (RWQCB) Regions may require notification and approval prior to any discharge of water from construction sites.
- The destination of discharge from dewatering activities will typically determine the type of permit required for the discharge. For example, when discharging to a water of the U.S., a dewatering permit may be required through the site's governing RWQCB. When discharging to a sanitary sewer or Municipal Separate Storm Sewer System (MS4), a permit may need to be obtained from the owner of the sanitary sewer or MS4 in addition to obtaining an RWQCB dewatering permit. Additional permits or permissions from other agencies may be required for dewatering cofferdams or diversions.
- Dewatering discharges should not cause erosion at the discharge point. Appropriate BMPs should be implemented to maintain compliance with all applicable permits.
- Maintain dewatering records in accordance with all local and project-specific permits and regulations.

Sediment Treatment

A variety of methods can be used to treat water during dewatering operations. Several devices are presented below and provide options to achieve sediment removal. The sediment particle size and permit or receiving water limitations on sediment or turbidity are key considerations for selecting sediment treatment option(s); in some cases, the use of multiple devices may be appropriate. Use of other enhanced treatment methods (i.e., introduction of chemicals or electric current to enhance flocculation and removal of sediment) must comply with: 1) for storm drain or surface water discharges, the requirements for Active Treatment Systems (see SE-11); or 2) for sanitary sewer discharges, the requirements of applicable sanitary sewer discharge permits.

Sediment Basin (see also SE-2)

Description:

- A sediment basin is a temporary basin with a controlled release structure that is formed by excavation or construction of an embankment to detain sediment-laden runoff and allow sediment to settle out before discharging. Sediment basins are generally larger than Sediment Traps (SE-3) and have a designed outlet structure.

Appropriate Applications:

- Effective for the removal of trash, gravel, sand, silt, some metals that settle out with the sediment.

Implementation:

- Excavation and construction of related facilities is required.
- Temporary sediment basins should be fenced if safety is a concern.
- Outlet protection is required to prevent erosion at the outfall location.

Maintenance:

- Maintenance is required for safety fencing, vegetation, embankment, inlet and outlet, as well as other features.
- Removal of sediment is required when the storage volume is reduced by one-third.

Sediment Trap (See also SE-3)

Description:

- A sediment trap is a temporary basin formed by excavation and/or construction of an earthen embankment across a waterway or low drainage area to detain sediment-laden runoff and allow sediment to settle out before discharging. Sediment traps are generally smaller than Sediment Basins (SE-2) and do not have a designed outlet (but do have a spillway or overflow).

Appropriate Applications:

Effective for the removal of large and medium sized particles (sand and gravel) and some metals that settle out with the sediment.

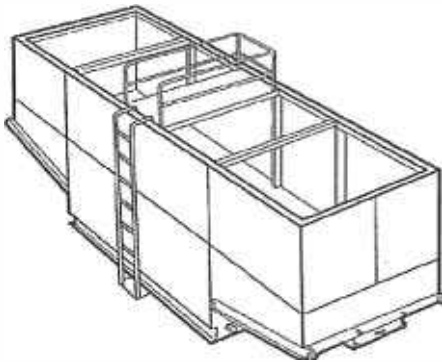
Implementation:

- Excavation and construction of related facilities is required.
- Trap inlets should be located to maximize the travel distance to the trap outlet.
- Use rock or vegetation to protect the trap outlets against erosion.

Maintenance:

- Maintenance is required for vegetation, embankment, inlet and outfall structures, as well as other features.
- Removal of sediment is required when the storage volume is reduced by one-third.

Weir Tanks



Description:

- A weir tank separates water and waste by using weirs. The configuration of the weirs (over and under weirs) maximizes the residence time in the tank and determines the waste to be removed from the water, such as oil, grease, and sediments.

Appropriate Applications:

- The tank removes trash, some settleable solids (gravel, sand, and silt), some visible oil and grease, and some metals (removed with sediment). To achieve high levels of flow, multiple tanks can be used in parallel. If additional treatment is desired, the tanks can be placed in series or as pre-treatment for other methods.

Implementation:

- Tanks are delivered to the site by the vendor, who can provide assistance with set-up and operation.
- Tank size will depend on flow volume, constituents of concern, and residency period required. Vendors should be consulted to appropriately size tank.
- Treatment capacity (i.e., volume and number of tanks) should provide at a minimum the required volume for discrete particle settling for treatment design flows.

Maintenance:

- Periodic cleaning is required based on visual inspection or reduced flow.
- Oil and grease disposal should be conducted by a licensed waste disposal company.

Dewatering Tanks



Description:

- A dewatering tank removes debris and sediment. Flow enters the tank through the top, passes through a fabric filter, and is discharged through the bottom of the tank. The filter separates the solids from the liquids.

Appropriate Applications:

- The tank removes trash, gravel, sand, and silt, some visible oil and grease, and some metals (removed with sediment). To achieve high levels of flow, multiple tanks can be used in parallel. If additional treatment is desired, the tanks can be placed in series or as pre-treatment for other methods.

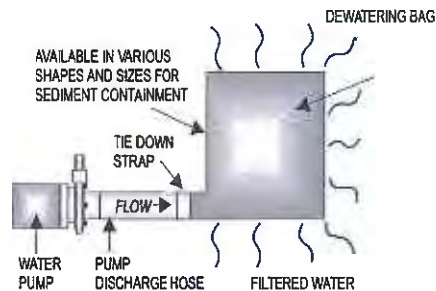
Implementation:

- Tanks are delivered to the site by the vendor, who can provide assistance with set-up and operation.
- Tank size will depend on flow volume, constituents of concern, and residency period required. Vendors should be consulted to appropriately size tank.

Maintenance:

- Periodic cleaning is required based on visual inspection or reduced flow.
- Oil and grease disposal should be conducted by licensed waste disposal company.

Gravity Bag Filter



Description:

- A gravity bag filter, also referred to as a dewatering bag, is a square or rectangular bag made of non-woven geotextile fabric that collects gravel, sand, silt, and fines.

Appropriate Applications:

- Effective for the removal of sediments (gravel, sand, silt, and fines). Some metals are removed with the sediment.

Implementation:

- Water is pumped into one side of the bag and seeps through the top, bottom, and sides of the bag.
- Place filter bag on pavement or a gravel bed or paved surface. Avoid placing a dewatering bag on unprotected bare soil. If placing the bag on bare soil is unavoidable, a secondary barrier should be used, such as a rock filter bed placed beneath and beyond the edges of the bag to, prevent erosion and capture sediments that escape the bag.
- Perimeter control around the downstream end of the bag should be implemented. Secondary sediment controls are important especially in the initial stages of discharge, which tend to allow fines to pass through the bag.

Maintenance:

- Inspection of the flow conditions, bag condition, bag capacity, and the secondary barrier (as applicable) is required.
- Replace the bag when it no longer filters sediment or passes water at a reasonable rate.
- Caution should be taken when removing and disposing of the bag, to prevent the release of captured sediment
- Properly dispose of the bag offsite. If sediment is removed from the bag prior to disposal (bags can potentially be reused depending upon their condition), dispose of sediment in accordance with the general maintenance procedures described at the end of this BMP Fact Sheet.

Sand Media Particulate Filter



Description:

- Water is treated by passing it through canisters filled with sand media. Generally, sand filters provide a final level of treatment. They are often used as a secondary or higher level of treatment after a significant amount of sediment and other pollutants have been removed using other methods.

Appropriate Applications:

- Effective for the removal of trash, gravel, sand, and silt and some metals, as well as the reduction of biochemical oxygen demand (BOD) and turbidity.
- Sand filters can be used for stand-alone treatment or in conjunction with bag and cartridge filtration if further treatment is required.
- Sand filters can also be used to provide additional treatment to water treated via settling or basic filtration.

Implementation:

- The filters require delivery to the site and initial set up. The vendor can provide assistance with installation and operation.

Maintenance:

- The filters require regular service to monitor and maintain the level of the sand media. If subjected to high loading rates, filters can plug quickly.
- Vendors generally provide data on maximum head loss through the filter. The filter should be monitored daily while in use and cleaned when head loss reaches target levels.
- If cleaned by backwashing, the backwash water may need to be hauled away for disposal or returned to the upper end of the treatment train for another pass through the series of dewatering BMPs.

Pressurized Bag Filter



Description:

- A pressurized bag filter is a unit composed of single filter bags made from polyester felt material. The water filters through the unit and is discharged through a header. Vendors provide bag filters in a variety of configurations. Some units include a combination of bag filters and cartridge filters for enhanced contaminant removal.

Appropriate Applications:

- Effective for the removal of sediment (sand and silt) and some metals, as well as the reduction of BOD, turbidity, and hydrocarbons. Oil absorbent bags are available for hydrocarbon removal.
- Filters can be used to provide secondary treatment to water treated via settling or basic filtration.

Implementation:

- The filters require delivery to the site and initial set up. The vendor can provide assistance with installation and operation.

Maintenance:

- The filter bags require replacement when the pressure differential equals or exceeds the manufacturer's recommendation.

Cartridge Filter



Description:

- Cartridge filters provide a high degree of pollutant removal by utilizing a number of individual cartridges as part of a larger filtering unit. They are often used as a secondary or higher (polishing) level of treatment after a significant amount of sediment and other pollutants are removed. Units come with various cartridge configurations (for use in series with bag filters) or with a larger single cartridge filtration unit (with multiple filters within).

Appropriate Applications:

- Effective for the removal of sediment (sand, silt, and some clays) and metals, as well as the reduction of BOD, turbidity, and hydrocarbons. Hydrocarbons can effectively be removed with special resin cartridges.
- Filters can be used to provide secondary treatment to water treated via settling or basic filtration.

Implementation:

- The filters require delivery to the site and initial set up. The vendor can provide assistance.

Maintenance:

- The cartridges require replacement when the pressure differential equals or exceeds the manufacturer's recommendation.

Costs

- Sediment control costs vary considerably depending on the dewatering and sediment treatment system that is selected. Pressurized filters tend to be more expensive than gravity settling but are often more effective. Simple tanks are generally rented on a long-term basis (one or more months) and can range from \$460 per month for a 1,000-gallon tank to \$3,400 per month for a 10,000-gallon tank (adjusted for inflation, 2016 dollars, by Tetra Tech Inc.). Mobilization and demobilization costs vary considerably.

Inspection and Maintenance

- Inspect and verify that dewatering BMPs are in place and functioning prior to the commencement of activities requiring dewatering.
- Inspect dewatering BMPs daily while dewatering activities are being conducted.

- Inspect all equipment before use. Monitor dewatering operations to ensure they do not cause offsite discharge or erosion.
- Sample dewatering discharges as required by the General Permit.
- Unit-specific maintenance requirements are included with the description of each unit.
- Sediment removed during the maintenance of a dewatering device may be either spread onsite and stabilized or disposed of at a disposal site as approved by the owner.
- Sediment that is commingled with other pollutants should be disposed of in accordance with all applicable laws and regulations and as approved by the owner.

References

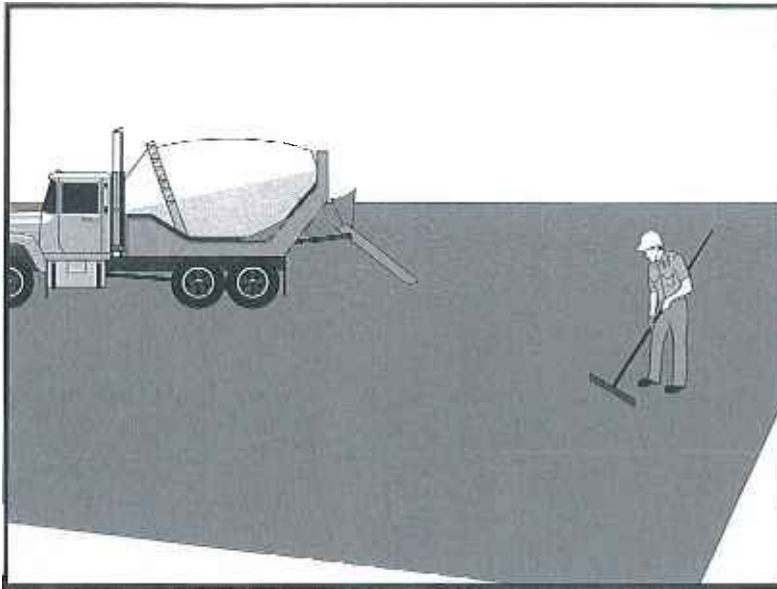
Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003; Updated March 2004.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.

Labor Surcharge & Equipment Rental Rates, April 1, 2002 through March 31, 2003, California Department of Transportation (Caltrans).

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
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NS	Non-Stormwater Management Control	<input checked="" type="checkbox"/>
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	<input checked="" type="checkbox"/>
Organics	

Potential Alternatives

None

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Description and Purpose

Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent runoff and runoff pollution, properly disposing of wastes, and training employees and subcontractors.

The General Permit incorporates Numeric Action Levels (NAL) for pH and turbidity (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Many types of construction materials associated with paving and grinding operations, including mortar, concrete, and cement and their associated wastes have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows, which could lead to exceedances of the General Permit requirements.

Suitable Applications

These procedures are implemented where paving, surfacing, resurfacing, or sawcutting, may pollute stormwater runoff or discharge to the storm drain system or watercourses.

Limitations

- Paving opportunities may be limited during wet weather.

Discharges of freshly paved surfaces may raise pH to environmentally harmful levels and trigger permit violations.



Implementation

General

- Avoid paving during the wet season when feasible.
- Reschedule paving and grinding activities if rain is forecasted.
- Train employees and sub-contractors in pollution prevention and reduction.
- Store materials away from drainage courses to prevent stormwater runoff (see WM-1, Material Delivery and Storage).
- Protect drainage courses, particularly in areas with a grade, by employing BMPs to divert runoff or to trap and filter sediment.
- Stockpile material removed from roadways away from drain inlets, drainage ditches, and watercourses. These materials should be stored consistent with WM-3, Stockpile Management.
- Disposal of PCC (Portland cement concrete) and AC (asphalt concrete) waste should be in conformance with WM-8, Concrete Waste Management.

Saw Cutting, Grinding, and Pavement Removal

- Shovel or vacuum saw-cut slurry and remove from site. Cover or barricade storm drains during saw cutting to contain slurry.
- When paving involves AC, the following steps should be implemented to prevent the discharge of grinding residue, uncompacted or loose AC, tack coats, equipment cleaners, or unrelated paving materials:
 - AC grindings, pieces, or chunks used in embankments or shoulder backing should not be allowed to enter any storm drains or watercourses. Install inlet protection and perimeter controls until area is stabilized (i.e. cutting, grinding or other removal activities are complete and loose material has been properly removed and disposed of) or permanent controls are in place. Examples of temporary perimeter controls can be found in EC-9, Earth Dikes and Drainage Swales; SE-1, Silt Fence; SE-5, Fiber Rolls, or SE-13 Compost Socks and Berms
 - Collect and remove all broken asphalt and recycle when practical. Old or spilled asphalt should be recycled or disposed of properly.
- Do not allow saw-cut slurry to enter storm drains or watercourses. Residue from grinding operations should be picked up by a vacuum attachment to the grinding machine, or by sweeping, should not be allowed to flow across the pavement, and should not be left on the surface of the pavement. See also WM-8, Concrete Waste Management, and WM-10, Liquid Waste Management.
- Pavement removal activities should not be conducted in the rain.
- Collect removed pavement material by mechanical or manual methods. This material may be recycled for use as shoulder backing or base material.

- If removed pavement material cannot be recycled, transport the material back to an approved storage site.

Asphaltic Concrete Paving

- If paving involves asphaltic cement concrete, follow these steps:
 - Do not allow sand or gravel placed over new asphalt to wash into storm drains, streets, or creeks. Vacuum or sweep loose sand and gravel and properly dispose of this waste by referring to WM-5, Solid Waste Management.
 - Old asphalt should be disposed of properly. Collect and remove all broken asphalt from the site and recycle whenever possible.

Portland Cement Concrete Paving

- Do not wash sweepings from exposed aggregate concrete into a storm drain system. Collect waste materials by dry methods, such as sweeping or shoveling, and return to aggregate base stockpile or dispose of properly. Allow aggregate rinse to settle. Then, either allow rinse water to dry in a temporary pit as described in WM-8, Concrete Waste Management, or pump the water to the sanitary sewer if authorized by the local wastewater authority.

Sealing Operations

- During chip seal application and sweeping operations, petroleum or petroleum covered aggregate should not be allowed to enter any storm drain or water courses. Apply temporary perimeter controls until structure is stabilized (i.e. all sealing operations are complete and cured and loose materials have been properly removed and disposed).
- Inlet protection (SE-10, Storm Drain Inlet Protection) should be used during application of seal coat, tack coat, slurry seal, and fog seal.
- Seal coat, tack coat, slurry seal, or fog seal should not be applied if rainfall is predicted to occur during the application or curing period.

Paving Equipment

- Leaks and spills from paving equipment can contain toxic levels of heavy metals and oil and grease. Place drip pans or absorbent materials under paving equipment when not in use. Clean up spills with absorbent materials and dispose of in accordance with the applicable regulations. See NS-10, Vehicle and Equipment Maintenance, WM-4, Spill Prevention and Control, and WM-10, Liquid Waste Management.
- Substances used to coat asphalt transport trucks and asphalt spreading equipment should not contain soap and should be non-foaming and non-toxic.
- Paving equipment parked onsite should be parked over plastic to prevent soil contamination.
- Clean asphalt coated equipment offsite whenever possible. When cleaning dry, hardened asphalt from equipment, manage hardened asphalt debris as described in WM-5, Solid Waste Management. Any cleaning onsite should follow NS-8, Vehicle and Equipment Cleaning.

Thermoplastic Striping

- Thermoplastic striper and pre-heater equipment shutoff valves should be inspected to ensure that they are working properly to prevent leaking thermoplastic from entering drain inlets, the stormwater drainage system, or watercourses.
- Pre-heaters should be filled carefully to prevent splashing or spilling of hot thermoplastic. Leave six inches of space at the top of the pre-heater container when filling thermoplastic to allow room for material to move.
- Do not pre-heat, transfer, or load thermoplastic near drain inlets or watercourses.
- Clean truck beds daily of loose debris and melted thermoplastic. When possible, recycle thermoplastic material.

Raised/Recessed Pavement Marker Application and Removal

- Do not transfer or load bituminous material near drain inlets, the stormwater drainage system, or watercourses.
- Melting tanks should be loaded with care and not filled to beyond six inches from the top to leave room for splashing.
- When servicing or filling melting tanks, ensure all pressure is released before removing lids to avoid spills.
- On large-scale projects, use mechanical or manual methods to collect excess bituminous material from the roadway after removal of markers.

Costs

- All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of paving and grinding operations.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Sample stormwater runoff required by the General Permit.
- Keep ample supplies of drip pans or absorbent materials onsite.
- Inspect and maintain machinery regularly to minimize leaks and drips.

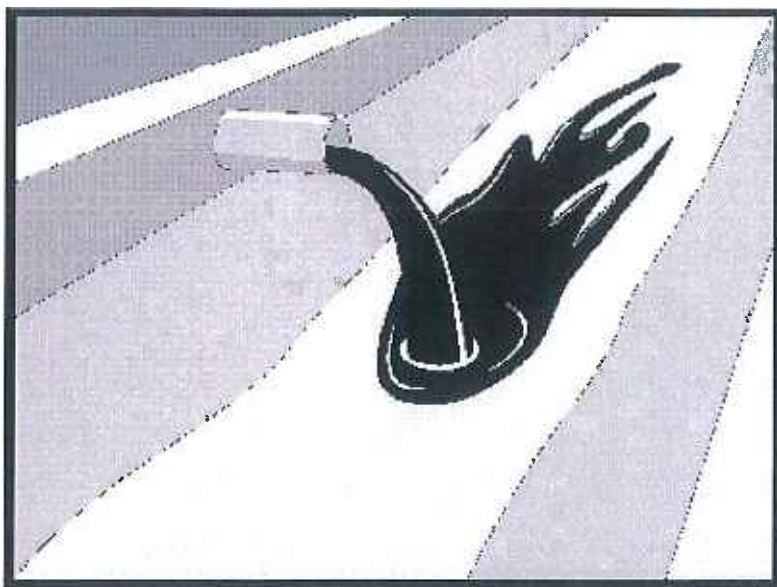
References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Hot Mix Asphalt-Paving Handbook AC 150/5370-14, Appendix I, U.S. Army Corps of Engineers, July 1991.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.



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WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	<input checked="" type="checkbox"/>
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	
Nutrients	<input checked="" type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	<input checked="" type="checkbox"/>
Oil and Grease	<input checked="" type="checkbox"/>
Organics	<input checked="" type="checkbox"/>

Potential Alternatives

None

Description and Purpose

Procedures and practices designed for construction contractors to recognize illicit connections or illegally dumped or discharged materials on a construction site and report incidents.

Suitable Applications

This best management practice (BMP) applies to all construction projects. Illicit connection/discharge and reporting is applicable anytime an illicit connection or discharge is discovered, or illegally dumped material is found on the construction site.

Limitations

Illicit connections and illegal discharges or dumping, for the purposes of this BMP, refer to discharges and dumping caused by parties other than the contractor. If pre-existing hazardous materials or wastes are known to exist onsite, they should be identified in the SWPPP and handled as set forth in the SWPPP.

Implementation

Planning

- Review the SWPPP. Pre-existing areas of contamination should be identified and documented in the SWPPP.
- Inspect site before beginning the job for evidence of illicit connections, illegal dumping or discharges. Document any pre-existing conditions and notify the owner.

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- Inspect site regularly during project execution for evidence of illicit connections, illegal dumping or discharges.
- Observe site perimeter for evidence for potential of illicitly discharged or illegally dumped material, which may enter the job site.

Identification of Illicit Connections and Illegal Dumping or Discharges

- **General** – unlabeled and unidentifiable material should be treated as hazardous.
- **Solids** - Look for debris, or rubbish piles. Solid waste dumping often occurs on roadways with light traffic loads or in areas not easily visible from the traveled way.
- **Liquids** - signs of illegal liquid dumping or discharge can include:
 - Visible signs of staining or unusual colors to the pavement or surrounding adjacent soils
 - Pungent odors coming from the drainage systems
 - Discoloration or oily substances in the water or stains and residues detained within ditches, channels or drain boxes
 - Abnormal water flow during the dry weather season
- **Urban Areas** - Evidence of illicit connections or illegal discharges is typically detected at storm drain outfall locations or at manholes. Signs of an illicit connection or illegal discharge can include:
 - Abnormal water flow during the dry weather season
 - Unusual flows in sub drain systems used for dewatering
 - Pungent odors coming from the drainage systems
 - Discoloration or oily substances in the water or stains and residues detained within ditches, channels or drain boxes
 - Excessive sediment deposits, particularly adjacent to or near active offsite construction projects
- **Rural Areas** - Illicit connections or illegal discharges involving irrigation drainage ditches are detected by visual inspections. Signs of an illicit discharge can include:
 - Abnormal water flow during the non-irrigation season
 - Non-standard junction structures
 - Broken concrete or other disturbances at or near junction structures

Reporting

Notify the owner of any illicit connections and illegal dumping or discharge incidents at the time of discovery. For illicit connections or discharges to the storm drain system, notify the local stormwater management agency. For illegal dumping, notify the local law enforcement agency.

Cleanup and Removal

The responsibility for cleanup and removal of illicit or illegal dumping or discharges will vary by location. Contact the local stormwater management agency for further information.

Costs

Costs to look for and report illicit connections and illegal discharges and dumping are low. The best way to avoid costs associated with illicit connections and illegal discharges and dumping is to keep the project perimeters secure to prevent access to the site, to observe the site for vehicles that should not be there, and to document any waste or hazardous materials that exist onsite before taking possession of the site.

Inspection and Maintenance

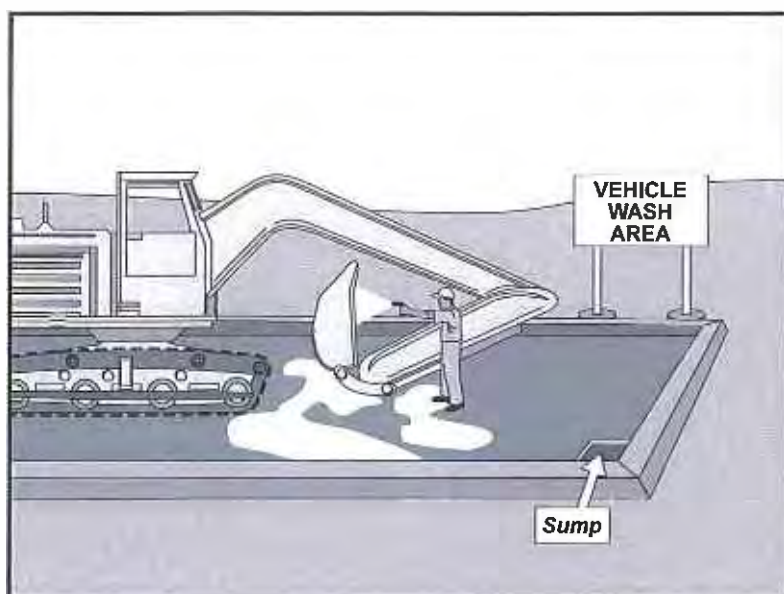
- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect the site regularly to check for any illegal dumping or discharge.
- Prohibit employees and subcontractors from disposing of non-job-related debris or materials at the construction site.
- Notify the owner of any illicit connections and illegal dumping or discharge incidents at the time of discovery.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.



Description and Purpose

Vehicle and equipment cleaning procedures and practices eliminate or reduce the discharge of pollutants to stormwater from vehicle and equipment cleaning operations. Procedures and practices include but are not limited to: using offsite facilities; washing in designated, contained areas only; eliminating discharges to the storm drain by infiltrating the wash water; and training employees and subcontractors in proper cleaning procedures.

Suitable Applications

These procedures are suitable on all construction sites where vehicle and equipment cleaning is performed.

Limitations

Even phosphate-free, biodegradable soaps have been shown to be toxic to fish before the soap degrades. Sending vehicles/equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/Exit.

Implementation

Other options to washing equipment onsite include contracting with either an offsite or mobile commercial washing business. These businesses may be better equipped to handle and dispose of the wash waters properly. Performing this work offsite can also be economical by eliminating the need for a separate washing operation onsite.

If washing operations are to take place onsite, then:

Categories

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Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>
Trash	
Metals	
Bacteria	
Oil and Grease	<input checked="" type="checkbox"/>
Organics	<input checked="" type="checkbox"/>

Potential Alternatives

None

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- Use phosphate-free, biodegradable soaps.
- Educate employees and subcontractors on pollution prevention measures.
- Do not permit steam cleaning onsite. Steam cleaning can generate significant pollutant concentrates.
- Cleaning of vehicles and equipment with soap, solvents or steam should not occur on the project site unless resulting wastes are fully contained and disposed of. Resulting wastes should not be discharged or buried and must be captured and recycled or disposed according to the requirements of WM-10, Liquid Waste Management or WM-6, Hazardous Waste Management, depending on the waste characteristics. Minimize use of solvents. Use of diesel for vehicle and equipment cleaning is prohibited.
- All vehicles and equipment that regularly enter and leave the construction site must be cleaned offsite.
- When vehicle and equipment washing and cleaning must occur onsite, and the operation cannot be located within a structure or building equipped with appropriate disposal facilities, the outside cleaning area should have the following characteristics:
 - Located away from storm drain inlets, drainage facilities, or watercourses
 - Paved with concrete or asphalt and bermed to contain wash waters and to prevent runoff and runoff
 - Configured with a sump to allow collection and disposal of wash water
 - No discharge of wash waters to storm drains or watercourses
 - Used only when necessary
- When cleaning vehicles and equipment with water:
 - Use as little water as possible. High-pressure sprayers may use less water than a hose and should be considered
 - Use positive shutoff valve to minimize water usage
 - Facility wash racks should discharge to a sanitary sewer, recycle system or other approved discharge system and must not discharge to the storm drainage system, watercourses, or to groundwater

Costs

Cleaning vehicles and equipment at an offsite facility may reduce overall costs for vehicle and equipment cleaning by eliminating the need to provide similar services onsite. When onsite cleaning is needed, the cost to establish appropriate facilities is relatively low on larger, long-duration projects, and moderate to high on small, short-duration projects.

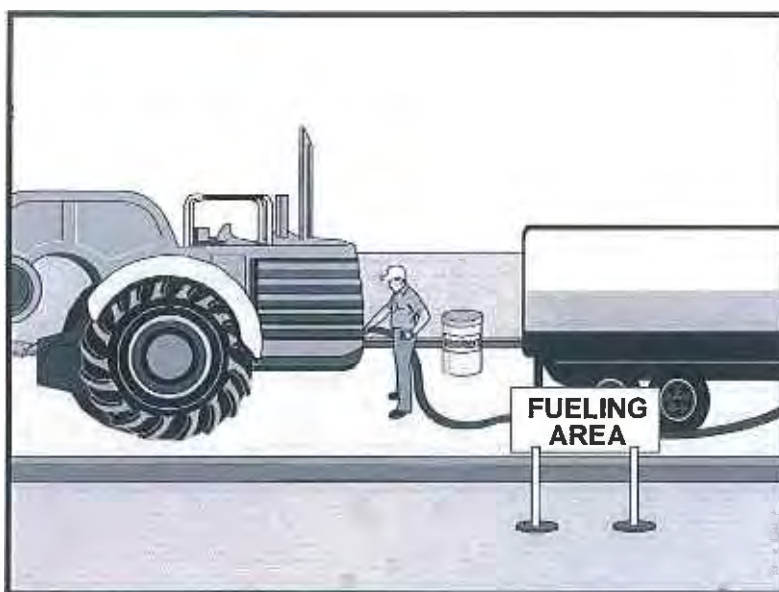
Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Inspection and maintenance is minimal, although some berm repair may be necessary.
- Monitor employees and subcontractors throughout the duration of the construction project to ensure appropriate practices are being implemented.
- Inspect sump regularly and remove liquids and sediment as needed.
- Prohibit employees and subcontractors from washing personal vehicles and equipment on the construction site.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Swisher, R.D. Surfactant Biodegradation, Marcel Dekker Corporation, 1987.



Description and Purpose

Vehicle equipment fueling procedures and practices are designed to prevent fuel spills and leaks and reduce or eliminate contamination of stormwater. This can be accomplished by using offsite facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors in proper fueling procedures.

Suitable Applications

These procedures are suitable on all construction sites where vehicle and equipment fueling takes place.

Limitations

Onsite vehicle and equipment fueling should only be used where it is impractical to send vehicles and equipment offsite for fueling. Sending vehicles and equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/ Exit.

Implementation

- Use offsite fueling stations as much as possible. These businesses are better equipped to handle fuel and spills properly. Performing this work offsite can also be economical by eliminating the need for a separate fueling area at a site.
- Discourage “topping-off” of fuel tanks.

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	<input checked="" type="checkbox"/>
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	<input checked="" type="checkbox"/>
Organics	

Potential Alternatives

None

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- Absorbent spill cleanup materials and spill kits should be available in fueling areas and on fueling trucks and should be disposed of properly after use.
- Drip pans or absorbent pads should be used during vehicle and equipment fueling, unless the fueling is performed over an impermeable surface in a dedicated fueling area.
- Use absorbent materials on small spills. Do not hose down or bury the spill. Remove the adsorbent materials promptly and dispose of properly.
- Avoid mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas. With the exception of tracked equipment such as bulldozers and large excavators, most vehicles should be able to travel to a designated area with little lost time.
- Train employees and subcontractors in proper fueling and cleanup procedures.
- When fueling must take place onsite, designate an area away from drainage courses to be used. Fueling areas should be identified in the SWPPP.
- Dedicated fueling areas should be protected from stormwater runoff and should be located at least 50 ft away from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas.
- Protect fueling areas with berms and dikes to prevent runoff, and to contain spills.
- Nozzles used in vehicle and equipment fueling should be equipped with an automatic shutoff to control drips. Fueling operations should not be left unattended.
- Use vapor recovery nozzles to help control drips as well as air pollution where required by Air Quality Management Districts (AQMD).
- Federal, state, and local requirements should be observed for any stationary above ground storage tanks.

Costs

- All of the above measures are low cost except for the capital costs of above ground tanks that meet all local environmental, zoning, and fire codes.

Inspection and Maintenance

- Inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Vehicles and equipment should be inspected each day of use for leaks. Leaks should be repaired immediately, or problem vehicles or equipment should be removed from the project site.
- Keep ample supplies of spill cleanup materials onsite.

- Immediately clean up spills and properly dispose of contaminated soil and cleanup materials.

References

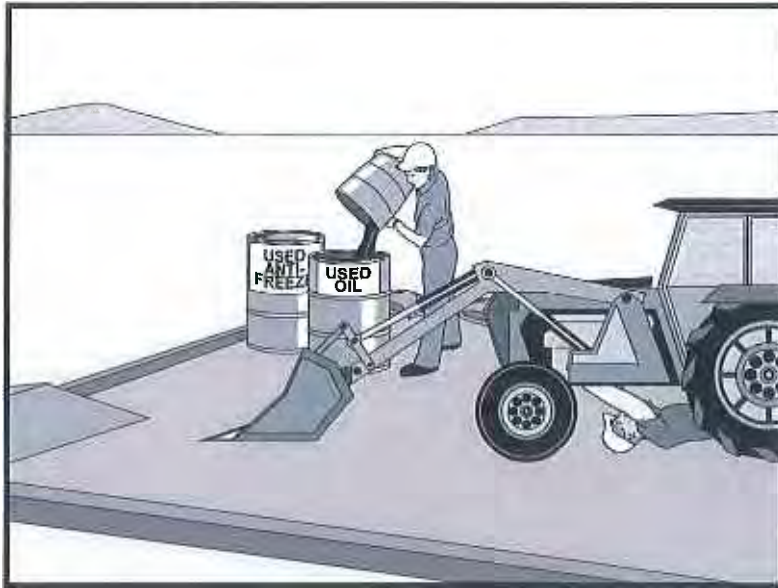
Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance, Working Group Working Paper; USEPA, April 1992.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.

Vehicle & Equipment Maintenance NS-10



Description and Purpose

Prevent or reduce the contamination of stormwater resulting from vehicle and equipment maintenance by running a “dry and clean site”. The best option would be to perform maintenance activities at an offsite facility. If this option is not available then work should be performed in designated areas only, while providing cover for materials stored outside, checking for leaks and spills, and containing and cleaning up spills immediately. Employees and subcontractors must be trained in proper procedures.

Suitable Applications

These procedures are suitable on all construction projects where an onsite yard area is necessary for storage and maintenance of heavy equipment and vehicles.

Limitations

Onsite vehicle and equipment maintenance should only be used where it is impractical to send vehicles and equipment offsite for maintenance and repair. Sending vehicles/equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/Exit.

Outdoor vehicle or equipment maintenance is a potentially significant source of stormwater pollution. Activities that can contaminate stormwater include engine repair and service, changing or replacement of fluids, and outdoor equipment storage and parking (engine fluid leaks). For further information on vehicle or equipment servicing, see NS-8,

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	<input checked="" type="checkbox"/>
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	
Nutrients	<input checked="" type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	
Bacteria	
Oil and Grease	<input checked="" type="checkbox"/>
Organics	<input checked="" type="checkbox"/>

Potential Alternatives

None

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Vehicle & Equipment Maintenance NS-10

Vehicle and Equipment Cleaning, and NS-9, Vehicle and Equipment Fueling.

Implementation

- Use offsite repair shops as much as possible. These businesses are better equipped to handle vehicle fluids and spills properly. Performing this work offsite can also be economical by eliminating the need for a separate maintenance area.
- If maintenance must occur onsite, use designated areas, located away from drainage courses. Dedicated maintenance areas should be protected from stormwater runoff and should be located at least 50 ft from downstream drainage facilities and watercourses.
- Drip pans or absorbent pads should be used during vehicle and equipment maintenance work that involves fluids, unless the maintenance work is performed over an impermeable surface in a dedicated maintenance area.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- All fueling trucks and fueling areas are required to have spill kits and/or use other spill protection devices.
- Use adsorbent materials on small spills. Remove the absorbent materials promptly and dispose of properly.
- Inspect onsite vehicles and equipment daily at startup for leaks, and repair immediately.
- Keep vehicles and equipment clean; do not allow excessive build-up of oil and grease.
- Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic and transmission fluids. Provide secondary containment and covers for these materials if stored onsite.
- Train employees and subcontractors in proper maintenance and spill cleanup procedures.
- Drip pans or plastic sheeting should be placed under all vehicles and equipment placed on docks, barges, or other structures over water bodies when the vehicle or equipment is planned to be idle for more than 1 hour.
- For long-term projects, consider using portable tents or covers over maintenance areas if maintenance cannot be performed offsite.
- Consider use of new, alternative greases and lubricants, such as adhesive greases, for chassis lubrication and fifth-wheel lubrication.
- Properly dispose of used oils, fluids, lubricants, and spill cleanup materials.
- Do not place used oil in a dumpster or pour into a storm drain or watercourse.
- Properly dispose of or recycle used batteries.
- Do not bury used tires.

Vehicle & Equipment Maintenance NS-10

- Repair leaks of fluids and oil immediately.

Listed below is further information if you must perform vehicle or equipment maintenance onsite.

Safer Alternative Products

- Consider products that are less toxic or hazardous than regular products. These products are often sold under an “environmentally friendly” label.
- Consider use of grease substitutes for lubrication of truck fifth-wheels. Follow manufacturers label for details on specific uses.
- Consider use of plastic friction plates on truck fifth-wheels in lieu of grease. Follow manufacturers label for details on specific uses.

Waste Reduction

Parts are often cleaned using solvents such as trichloroethylene, trichloroethane, or methylene chloride. Many of these cleaners are listed in California Toxic Rule as priority pollutants. These materials are harmful and must not contaminate stormwater. They must be disposed of as a hazardous waste. Reducing the number of solvents makes recycling easier and reduces hazardous waste management costs. Often, one solvent can perform a job as well as two different solvents. Also, if possible, eliminate or reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials. For example, replace chlorinated organic solvents with non-chlorinated solvents. Non-chlorinated solvents like kerosene or mineral spirits are less toxic and less expensive to dispose of properly. Check the list of active ingredients to see whether it contains chlorinated solvents. The “chlor” term indicates that the solvent is chlorinated. Also, try substituting a wire brush for solvents to clean parts.

Recycling and Disposal

Separating wastes allows for easier recycling and may reduce disposal costs. Keep hazardous wastes separate, do not mix used oil solvents, and keep chlorinated solvents (like, trichloroethane) separate from non-chlorinated solvents (like kerosene and mineral spirits). Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around. Provide cover and secondary containment until these materials can be removed from the site.

Oil filters can be recycled. Ask your oil supplier or recycler about recycling oil filters.

Do not dispose of extra paints and coatings by dumping liquid onto the ground or throwing it into dumpsters. Allow coatings to dry or harden before disposal into covered dumpsters.

Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries, even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Costs

All of the above are low cost measures. Higher costs are incurred to setup and maintain onsite maintenance areas.

Vehicle & Equipment Maintenance NS-10

Inspection and Maintenance

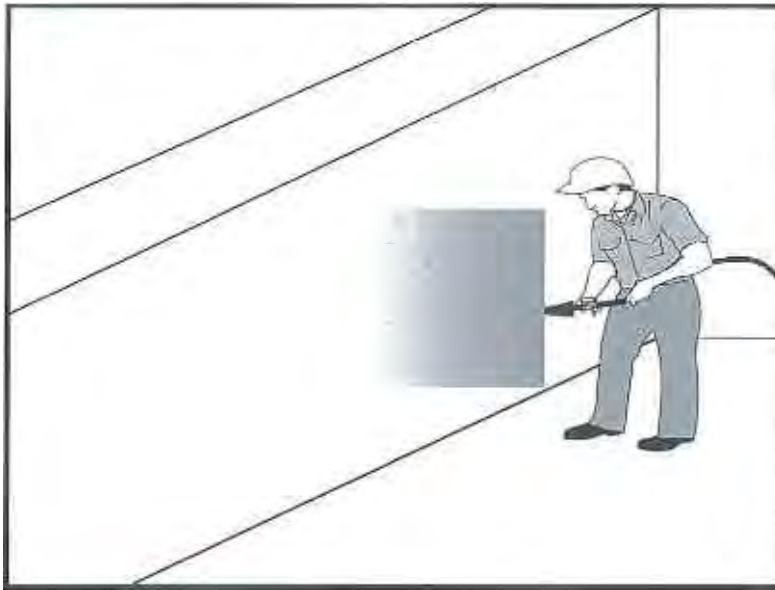
- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Keep ample supplies of spill cleanup materials onsite.
- Maintain waste fluid containers in leak proof condition.
- Vehicles and equipment should be inspected on each day of use. Leaks should be repaired immediately, or the problem vehicle(s) or equipment should be removed from the project site.
- Inspect equipment for damaged hoses and leaky gaskets routinely. Repair or replace as needed.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Coastal Nonpoint Pollution Control Program; Program Development and Approval Guidance, Working Group, Working Paper; USEPA, April 1992.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.



Description and Purpose

Concrete curing is used in the construction of structures such as bridges, retaining walls, pump houses, large slabs, and structured foundations. Concrete curing includes the use of both chemical and water methods.

Concrete and its associated curing materials have basic chemical properties that can raise the pH of water to levels outside of the permitted range. Discharges of stormwater and non-stormwater exposed to concrete during curing may have a high pH and may contain chemicals, metals, and fines. The General Permit incorporates Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Proper procedures and care should be taken when managing concrete curing materials to prevent them from coming into contact with stormwater flows, which could result in a high pH discharge.

Suitable Applications

Suitable applications include all projects where Portland Cement Concrete (PCC) and concrete curing chemicals are placed where they can be exposed to rainfall, runoff from other areas, or where runoff from the PCC will leave the site.

Limitations

- Runoff contact with concrete waste can raise pH levels in the water to environmentally harmful levels and trigger permit violations.

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	<input checked="" type="checkbox"/>
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ **Primary Category**
- ☒ **Secondary Category**

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	<input checked="" type="checkbox"/>
Bacteria	
Oil and Grease	<input checked="" type="checkbox"/>
Organics	

Potential Alternatives

None

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Implementation

Chemical Curing

- Avoid over spray of curing compounds.
- Minimize the drift by applying the curing compound close to the concrete surface. Apply an amount of compound that covers the surface but does not allow any runoff of the compound.
- Use proper storage and handling techniques for concrete curing compounds. Refer to WM-1, Material Delivery and Storage.
- Protect drain inlets prior to the application of curing compounds.
- Refer to WM-4, Spill Prevention and Control.

Water Curing for Bridge Decks, Retaining Walls, and other Structures

- Direct cure water away from inlets and watercourses to collection areas for evaporation or other means of removal in accordance with all applicable permits. See WM-8 Concrete Waste Management.
- Collect cure water at the top of slopes and transport to a concrete waste management area in a non-erosive manner. See EC-9 Earth Dikes and Drainage Swales, EC-10, Velocity Dissipation Devices, and EC-11, Slope Drains.
- Utilize wet blankets or a similar method that maintains moisture while minimizing the use and possible discharge of water.

Education

- Educate employees, subcontractors, and suppliers on proper concrete curing techniques to prevent contact with discharge as described herein.
- Arrange for the QSP or the appropriately trained contractor's superintendent or representative to oversee and enforce concrete curing procedures.

Costs

All of the above measures are generally low cost.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Sample non-stormwater discharges and stormwater runoff that contacts uncured and partially cured concrete as required by the General Permit.

- Ensure that employees and subcontractors implement appropriate measures for storage, handling, and use of curing compounds.
- Inspect cure containers and spraying equipment for leaks.

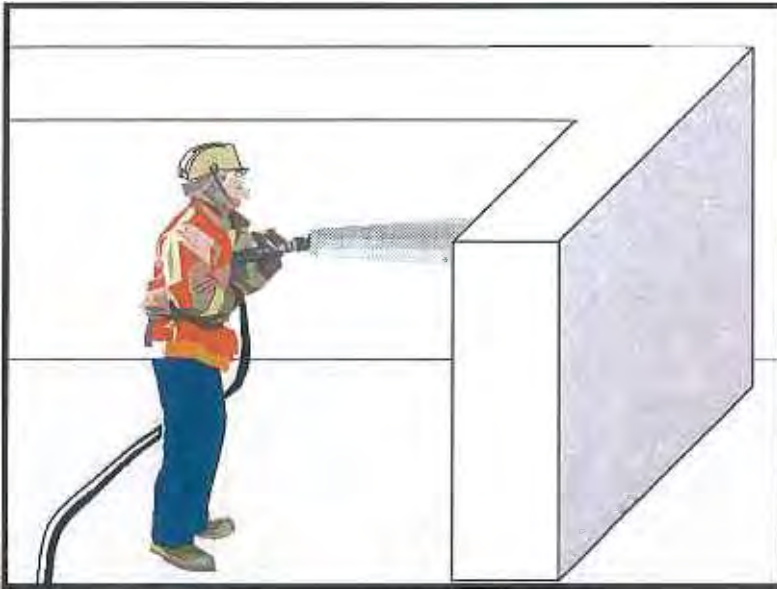
References

Blue Print for a Clean Bay-Construction-Related Industries: Best Management Practices for Stormwater Pollution Prevention; Santa Clara Valley Non-Point Source Pollution Control Program, 1992.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	<input checked="" type="checkbox"/>
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ **Primary Category**
- ☒ **Secondary Category**

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	<input checked="" type="checkbox"/>
Bacteria	
Oil and Grease	
Organics	<input checked="" type="checkbox"/>

Potential Alternatives

None

Description and Purpose

Concrete finishing methods are used for bridge deck rehabilitation, paint removal, curing compound removal, and final surface finish appearances. Methods include sand blasting, shot blasting, grinding, or high-pressure water blasting. Stormwater and non-stormwater exposed to concrete finishing by-products may have a high pH and may contain chemicals, metals, and fines. Proper procedures and implementation of appropriate BMPs can minimize the impact that concrete-finishing methods may have on stormwater and non-stormwater discharges.

The General Permit incorporates Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Concrete and its associated curing materials have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows, which could lead to exceedances of the General Permit requirements.

Suitable Applications

These procedures apply to all construction locations where concrete finishing operations are performed.

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Limitations

- Runoff contact with concrete waste can raise pH levels in the water to environmentally harmful levels and trigger permit violations.

Implementation

- Collect and properly dispose of water from high-pressure water blasting operations.
- Collect contaminated water from blasting operations at the top of slopes. Transport or dispose of contaminated water while using BMPs such as those for erosion control. Refer to EC-9, Earth Dikes and Drainage Swales, EC-10, Velocity Dissipation Devices, and EC-11, Slope Drains.
- Direct water from blasting operations away from inlets and watercourses to collection areas for infiltration or other means of removal (dewatering). Refer to NS-2 Dewatering Operations.
- Protect inlets during sandblasting operations. Refer to SE-10, Storm Drain Inlet Protection.
- Refer to WM-8, Concrete Waste Management for disposal of concrete debris.
- Minimize the drift of dust and blast material as much as possible by keeping the blasting nozzle close to the surface.
- When blast residue contains a potentially hazardous waste, refer to WM-6, Hazardous Waste Management.

Education

- Educate employees, subcontractors, and suppliers on proper concrete finishing techniques to prevent contact with discharge as described herein.
- Arrange for the QSP or the appropriately trained contractor's superintendent or representative to oversee and enforce concrete finishing procedures.

Costs

These measures are generally of low cost.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Sample non-stormwater discharges and stormwater runoff that contacts concrete dust and debris as required by the General Permit.

- Sweep or vacuum up debris from sandblasting at the end of each shift.
- At the end of each work shift, remove and contain liquid and solid waste from containment structures, if any, and from the general work area.
- Inspect containment structures for damage prior to use and prior to onset of forecasted rain.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.



Description and Purpose

The construction of roads, bridges, retaining walls, and other large structures in remote areas, often requires temporary batch plant facilities to manufacture Portland Cement Concrete (PCC) or asphalt cement (AC). Temporary batch plant facilities typically consist of silos containing fly ash, lime, and cement; heated tanks of liquid asphalt; sand and gravel material storage areas; mixing equipment; above ground storage tanks containing concrete additives and water; and designated areas for sand and gravel truck unloading, concrete truck loading, and concrete truck washout. Proper control and use of equipment, materials, and waste products from temporary batch plant facilities will reduce the discharge of potential pollutants to the storm drain system or watercourses, reduce air emissions, and mitigate noise impacts.

The General Permit draft incorporates Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements). Many types of batch plant materials, including mortar, concrete, cement and block and their associated wastes have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows which may cause an exceedance of the General Permit requirements.

Suitable Applications

These procedures typically apply to construction sites where temporary batch plant facilities are used; however, some of the

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	<input checked="" type="checkbox"/>
WM	Waste Management and Materials Pollution Control	

Legend:

- ☒ **Primary Category**
- ☒ **Secondary Category**

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

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practices described are applicable to construction sites with general concrete use.

Limitations

The General Permit for discharges of stormwater associated with industrial activities (General Industrial Permit) may be applicable to temporary batch plants.

Specific permit requirements or mitigation measures such as Air Resources Board (ARB), Air Quality Management District (AQMD), Air Pollution Control District (APCD, Regional Water Quality Control Board (RWQCB), county ordinances and city ordinances may require alternative mitigation measures for temporary batch plants. Contact the local regulatory agencies to determine if a permit is required.

Implementation

Planning

- Temporary batch plants may be subject to the General Industrial Permit. To obtain a copy of this permit and the application forms, visit <http://www.waterboards.ca.gov> or contact the State Water Resources Control Board.
- Proper planning, design, and construction of temporary batch plants should be implemented to minimize potential water quality, air pollution, and noise impacts associated with temporary batch plants.
- BMPs and a Construction Site Monitoring Plan (CSMP) should be included in the project Stormwater Pollution Prevention Plan (SWPPP). BMPs should be implemented, inspected, and maintained in accordance with these plans.
- Temporary batch plants should be managed to comply with AQMD Statewide Registration Program and/or local AQMD Portable Equipment Registration requirements.
- Construct temporary batch plants downwind of existing developments whenever possible.
- Placement of access roads should be planned to mitigate water and air quality impacts.

Layout and Design

- Temporary batch plants should be properly located and designed to mitigate water quality impacts to receiving water bodies. Batch plants should be located away from watercourses, drainage courses, and drain inlets. Batch plants should be located to minimize the potential for stormwater runoff onto the site.
- Temporary batch plant facilities (including associated stationary equipment and stockpiles) should be located at least 300 ft from any recreational area, school, residence, or other structure not associated with the construction project.
- Construct continuous interior AC or PCC berms around batch plant equipment (mixing equipment, silos, concrete drop points, conveyor belts, admixture tanks, etc.) to facilitate proper containment and cleanup of releases. Rollover or flip top curbs or dikes should be placed at ingress and egress points (SE-12, Temporary Silt Dike).
- Direct runoff from the paved or unpaved portion of the batch plant into a sump and pipe to a lined washout area or dewatering tank.

- Direct stormwater and non-stormwater runoff from unpaved portions of batch plant facility to catchment ponds or tanks.
- Construct and remove concrete washout facilities in accordance with WM-8, Concrete Waste Management.
- Layout of a typical batch plant and associated BMP is located at the end of this BMP fact sheet.

Operational Procedures

- Washout of concrete trucks should be conducted in a designated area in accordance with WM-8, Concrete Waste Management.
- Do not dispose of concrete into drain inlets, the stormwater drainage system, or watercourses.
- Washing of concrete mixing and transport equipment (including concrete truck washout) should occur in a designated area in accordance with WM-8, Concrete Waste Management.
- Washing equipment, tools, or vehicles to remove PCC should be conducted in accordance with NS-7, Potable Water/Irrigation, NS-8, Vehicle and Equipment Cleaning, and WM-8, Concrete Waste Management.
- All dry material transfer points should be ducted through a fabric or cartridge type filter unless there are no visible emissions from the transfer point.
- Equip all bulk storage silos, including auxiliary bulk storage trailers, with fabric or cartridge type filter(s).
- Maintain silo vent filters in proper operating condition.
- Equip silos and auxiliary bulk storage trailers with dust-tight service hatches.
- Fabric dust collection system should be capable of controlling particulate matter in accordance with the California Air Resources Control Board and local Air Pollution Control District Regulations.
- Fabric dust collectors (except for vent filters) should be equipped with an operational pressure differential gauge to measure the pressure drop across the filters.
- All transfer points should be equipped with a wet suppression system to control fugitive particulate emissions unless there are no visible emissions.
- All conveyors should be covered, unless the material being transferred results in no visible emissions.
- There should be no visible emissions beyond the property line, while the equipment is being operated.
- Collect dust emissions from the loading of open-bodied trucks, at the drip point of dry batch plants, or dust emissions from the drum feed for central mix plants.

- Equip silos and auxiliary bulk storage trailers with a visible and/or audible warning mechanism to warn operators that the silo or trailer is full.
- All open-bodied vehicles transporting material should be loaded with a final layer of wet sand and the truck should be covered with a tarp to reduce emissions.

Tracking Control

- Plant roads (batch truck and material delivery truck roads) and areas between stockpiles and conveyor hoppers should be stabilized (TC-2, Stabilized Construction Roadway), watered, treated with dust-suppressant chemicals (WE-1, Wind Erosion Control), or paved with a cohesive hard surface that can be repeatedly swept, maintained intact, and cleaned as necessary to control dust emissions.
- Trucks should not track PCC from plants onto public roads. Use appropriate practices from TC-1, Stabilized Construction Entrance/Exit, to prevent tracking.

Materials Storage

- WM-1, Material Delivery and Storage, should be implemented at all batch plants using concrete components or compounds. An effective strategy is to cover and contain materials.
- WM-2, Material Use should be conducted in a way to minimize or eliminate the discharge of materials to storm drain system or watercourse.
- Ensure that finer materials are not dispersed into the air during operations, such as unloading of cement delivery trucks.
- Stockpiles should be covered and enclosed with perimeter sediment barriers per WM-3, Stockpile Management. Uncovered stockpiles should be sprayed with water and/or dust-suppressant chemicals as necessary to control dust emissions, unless the stockpiled material results in no visible emissions. An operable stockpile watering system should be onsite at all times.
- Store bagged and boxed materials on pallets and cover or store in a completely enclosed storage area on non-working days and prior to rain.
- Minimize stockpiles of demolished PCC by recycling them in a timely manner.
- Provide secondary containment for liquid materials (WM-1, Material Delivery and Storage, WM-10, Liquid Waste Management). Containment should provide sufficient volume to contain precipitation from a 25-year storm plus 10% of the aggregate volume of all containers or plus 100% of the largest container, whichever is greater.
- Handle solid and liquid waste in accordance with WM-5, Solid Waste Management, WM-10, Liquid Waste Management, and WM-8, Concrete Waste Management.
- Maintain adequate supplies of spill cleanup materials and train staff to respond to spills per WM-4, Spill Prevention and Control.
- Immediately contain and clean up spilled cement and fly ash and contain.

Equipment Maintenance

- Equipment should be maintained to prevent fluid leaks and spills per NS-9, Vehicle and Equipment Fueling, and NS-10, Vehicle and Equipment Maintenance.
- Maintain adequate supplies of spill cleanup materials and train staff to respond to spills per WM-4, Spill Prevention and Control.
- Incorporate other BMPs such as WM-5, Solid Waste Management, WM-6, Hazardous Waste Management, and WM-10, Liquid Waste Management.

Costs

Costs will vary depending on the size of the facility and combination of BMPs implemented.

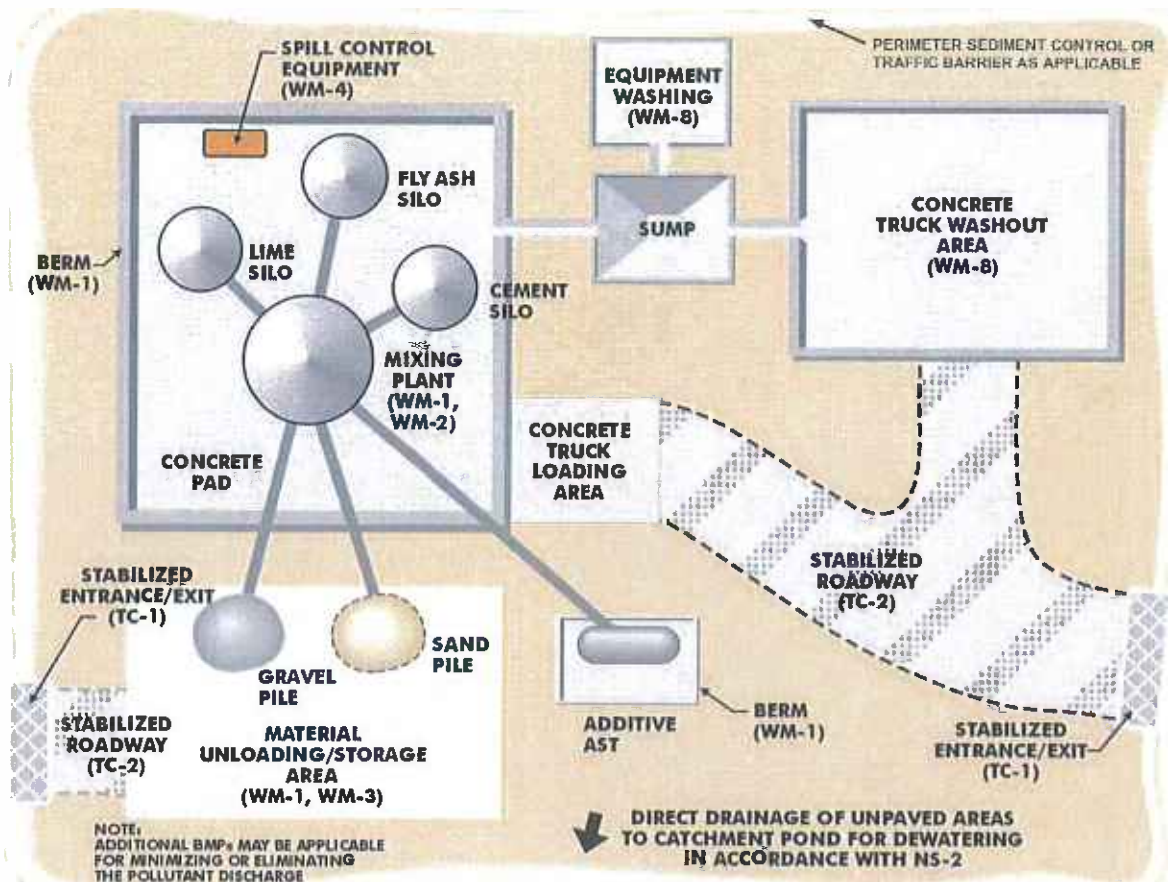
Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur.
- Sample non-stormwater discharges and stormwater runoff that contacts cementitious materials or fly ash as required by the General Permit.
- Inspect and repair equipment (for damaged hoses, fittings, and gaskets).
- Inspect and maintain a Stabilized Construction Entrance/Exit (TC-1) as needed.
- Inspect and maintain stabilized haul roads as needed (TC-2, Stabilized Construction Roadway).
- Inspect and maintain materials and waste storage areas as needed.

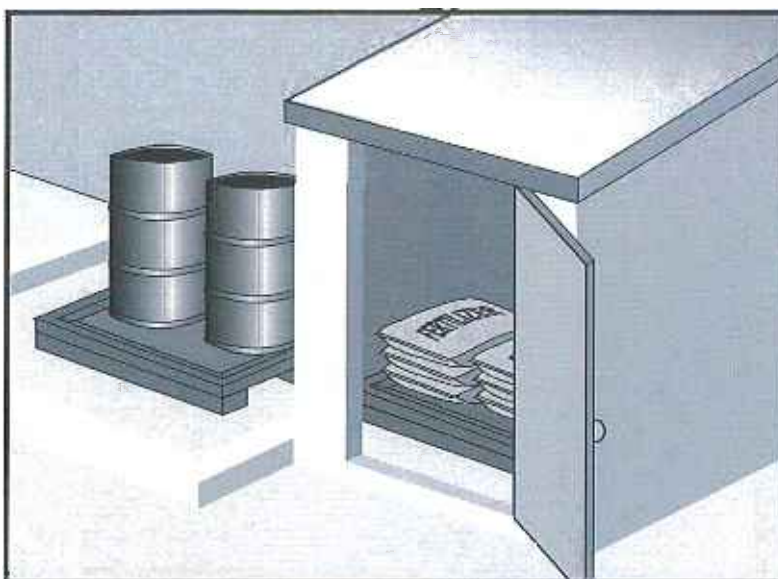
References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.



Typical Temporary Batch



Description and Purpose

Prevent, reduce, or eliminate the discharge of pollutants from material delivery and storage to the stormwater system or watercourses by minimizing the storage of hazardous materials onsite, storing materials in watertight containers and/or a completely enclosed designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

This best management practice covers only material delivery and storage. For other information on materials, see WM-2, Material Use, or WM-4, Spill Prevention and Control. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

These procedures are suitable for use at all construction sites with delivery and storage of the following materials:

- Soil stabilizers and binders
- Pesticides and herbicides
- Fertilizers
- Detergents
- Plaster
- Petroleum products such as fuel, oil, and grease

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	
Oil and Grease	<input checked="" type="checkbox"/>
Organics	<input checked="" type="checkbox"/>

Potential Alternatives

None

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- Asphalt and concrete components
- Hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds
- Concrete compounds
- Other materials that may be detrimental if released to the environment

Limitations

- Space limitation may preclude indoor storage.
- Storage sheds often must meet building and fire code requirements.

Implementation

The following steps should be taken to minimize risk:

- Chemicals must be stored in water tight containers with appropriate secondary containment or in a storage shed.
- When a material storage area is located on bare soil, the area should be lined and bermed.
- Use containment pallets or other practical and available solutions, such as storing materials within newly constructed buildings or garages, to meet material storage requirements.
- Stack erodible landscape material on pallets and cover when not in use.
- Contain all fertilizers and other landscape materials when not in use.
- Temporary storage areas should be located away from vehicular traffic.
- Material Safety Data Sheets (MSDS) should be available on-site for all materials stored that have the potential to effect water quality.
- Construction site areas should be designated for material delivery and storage.
- Material delivery and storage areas should be located away from waterways, if possible.
 - Avoid transport near drainage paths or waterways.
 - Surround with earth berms or other appropriate containment BMP. See EC-9, Earth Dikes and Drainage Swales.
 - Place in an area that will be paved.
- Storage of reactive, ignitable, or flammable liquids must comply with the fire codes of your area. Contact the local Fire Marshal to review site materials, quantities, and proposed storage area to determine specific requirements. See the Flammable and Combustible Liquid Code, NFPA30.
- An up to date inventory of materials delivered and stored onsite should be kept.

- Hazardous materials storage onsite should be minimized.
- Hazardous materials should be handled as infrequently as possible.
- Keep ample spill cleanup supplies appropriate for the materials being stored. Ensure that cleanup supplies are in a conspicuous, labeled area.
- Employees and subcontractors should be trained on the proper material delivery and storage practices.
- Employees trained in emergency spill cleanup procedures must be present when dangerous materials or liquid chemicals are unloaded.
- If significant residual materials remain on the ground after construction is complete, properly remove and dispose of materials and any contaminated soil. See WM-7, Contaminated Soil Management. If the area is to be paved, pave as soon as materials are removed to stabilize the soil.

Material Storage Areas and Practices

- Liquids, petroleum products, and substances listed in 40 CFR Parts 110, 117, or 302 should be stored in approved containers and drums and should not be overfilled. Containers and drums should be placed in temporary containment facilities for storage.
- A temporary containment facility should provide for a spill containment volume able to contain precipitation from a 25-year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest container within its boundary, whichever is greater.
- A temporary containment facility should be impervious to the materials stored therein for a minimum contact time of 72 hours.
- A temporary containment facility should be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be collected and placed into drums. These liquids should be handled as a hazardous waste unless testing determines them to be non-hazardous. All collected liquids or non-hazardous liquids should be sent to an approved disposal site.
- Sufficient separation should be provided between stored containers to allow for spill cleanup and emergency response access.
- Incompatible materials, such as chlorine and ammonia, should not be stored in the same temporary containment facility.
- Materials should be covered prior to, and during rain events.
- Materials should be stored in their original containers and the original product labels should be maintained in place in a legible condition. Damaged or otherwise illegible labels should be replaced immediately.

- Bagged and boxed materials should be stored on pallets and should not be allowed to accumulate on the ground. To provide protection from wind and rain throughout the rainy season, bagged and boxed materials should be covered during non-working days and prior to and during rain events.
- Stockpiles should be protected in accordance with WM-3, Stockpile Management.
- Materials should be stored indoors within existing structures or completely enclosed storage sheds when available.
- Proper storage instructions should be posted at all times in an open and conspicuous location.
- An ample supply of appropriate spill clean up material should be kept near storage areas.
- Also see WM-6, Hazardous Waste Management, for storing of hazardous wastes.

Material Delivery Practices

- Keep an accurate, up-to-date inventory of material delivered and stored onsite.
- Arrange for employees trained in emergency spill cleanup procedures to be present when dangerous materials or liquid chemicals are unloaded.

Spill Cleanup

- Contain and clean up any spill immediately.
- Properly remove and dispose of any hazardous materials or contaminated soil if significant residual materials remain on the ground after construction is complete. See WM-7, Contaminated Soil Management.
- See WM-4, Spill Prevention and Control, for spills of chemicals and/or hazardous materials.
- If spills or leaks of materials occur that are not contained and could discharge to surface waters, non-visible sampling of site discharge may be required. Refer to the General Permit or to your project specific Construction Site Monitoring Plan to determine if and where sampling is required.

Cost

- The largest cost of implementation may be in the construction of a materials storage area that is covered and provides secondary containment.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Keep storage areas clean and well organized, including a current list of all materials onsite.
- Inspect labels on containers for legibility and accuracy.

- Repair or replace perimeter controls, containment structures, covers, and liners as needed to maintain proper function.

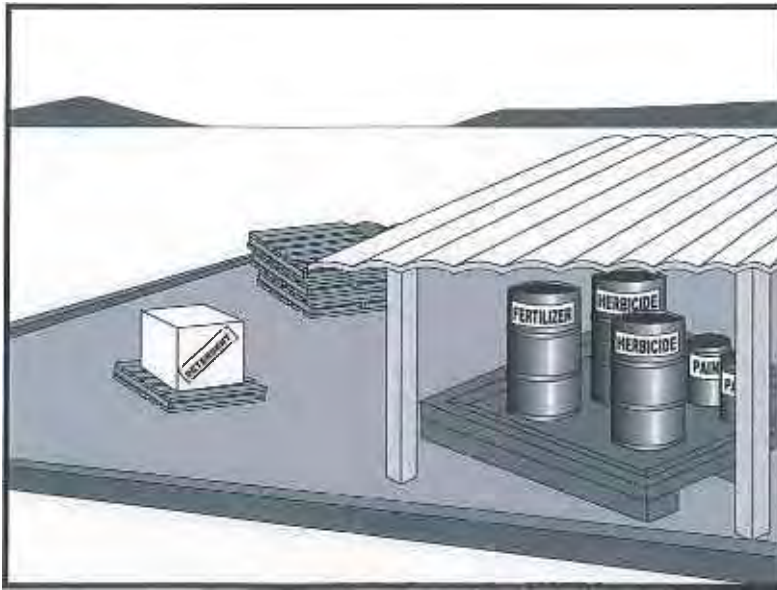
References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance, Working Group Working Paper; USEPA, April 1992.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.



Description and Purpose

Prevent or reduce the discharge of pollutants to the storm drain system or watercourses from material use by using alternative products, minimizing hazardous material use onsite, and training employees and subcontractors.

Suitable Applications

This BMP is suitable for use at all construction projects. These procedures apply when the following materials are used or prepared onsite:

- Pesticides and herbicides
- Fertilizers
- Detergents
- Petroleum products such as fuel, oil, and grease
- Asphalt and other concrete components
- Other hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds
- Other materials that may be detrimental if released to the environment

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ **Primary Category**
- ☒ **Secondary Category**

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	
Oil and Grease	<input checked="" type="checkbox"/>
Organics	<input checked="" type="checkbox"/>

Potential Alternatives

None

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Limitations

Safer alternative building and construction products may not be available or suitable in every instance.

Implementation

The following steps should be taken to minimize risk:

- Minimize use of hazardous materials onsite.
- Follow manufacturer instructions regarding uses, protective equipment, ventilation, flammability, and mixing of chemicals.
- Train personnel who use pesticides. The California Department of Pesticide Regulation and county agricultural commissioners license pesticide dealers, certify pesticide applicators, and conduct onsite inspections.
- The preferred method of termiticide application is soil injection near the existing or proposed structure foundation/slab; however, if not feasible, soil drench application of termiticides should follow EPA label guidelines and the following recommendations (most of which are applicable to most pesticide applications):
 - Do not treat soil that is water-saturated or frozen.
 - Application shall not commence within 24-hours of a predicted precipitation event with a 40% or greater probability. Weather tracking must be performed on a daily basis prior to termiticide application and during the period of termiticide application.
 - Do not allow treatment chemicals to runoff from the target area. Apply proper quantity to prevent excess runoff. Provide containment for and divert stormwater from application areas using berms or diversion ditches during application.
 - Dry season: Do not apply within 10 feet of storm drains. Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or ponds; estuaries; and commercial fish farm ponds).
 - Wet season: Do not apply within 50 feet of storm drains or aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or ponds; estuaries; and commercial fish farm ponds) unless a vegetative buffer is present (if so, refer to dry season requirements).
 - Do not make on-grade applications when sustained wind speeds are above 10 mph (at application site) at nozzle end height.
 - Cover treatment site prior to a rain event in order to prevent run-off of the pesticide into non-target areas. The treated area should be limited to a size that can be backfilled and/or covered by the end of the work shift. Backfilling or covering of the treated area shall be done by the end of the same work shift in which the application is made.
 - The applicator must either cover the soil him/herself or provide written notification of the above requirement to the contractor on site and to the person commissioning the

application (if different than the contractor). If notice is provided to the contractor or the person commissioning the application, then they are responsible under the Federal Insecticide Fungicide, and Rodenticide Act (FIFRA) to ensure that: 1) if the concrete slab cannot be poured over the treated soil within 24 hours of application, the treated soil is covered with a waterproof covering (such as polyethylene sheeting), and 2) the treated soil is covered if precipitation is predicted to occur before the concrete slab is scheduled to be poured.

- Do not over-apply fertilizers, herbicides, and pesticides. Prepare only the amount needed. Follow the recommended usage instructions. Over-application is expensive and environmentally harmful. Unless on steep slopes, till fertilizers into the soil rather than hydraulic application. Apply surface dressings in several smaller applications, as opposed to one large application, to allow time for infiltration and to avoid excess material being carried offsite by runoff. Do not apply these chemicals before predicted rainfall.
- Train employees and subcontractors in proper material use.
- Supply Material Safety Data Sheets (MSDS) for all materials.
- Dispose of latex paint and paint cans, used brushes, rags, absorbent materials, and drop cloths, when thoroughly dry and are no longer hazardous, with other construction debris.
- Do not remove the original product label; it contains important safety and disposal information. Use the entire product before disposing of the container.
- Mix paint indoors or in a containment area. Never clean paintbrushes or rinse paint containers into a street, gutter, storm drain, or watercourse. Dispose of any paint thinners, residue, and sludge(s) that cannot be recycled, as hazardous waste.
- For water-based paint, clean brushes to the extent practicable, and rinse to a drain leading to a sanitary sewer where permitted or contain for proper disposal off site. For oil-based paints, clean brushes to the extent practicable, and filter and reuse thinners and solvents.
- Use recycled and less hazardous products when practical. Recycle residual paints, solvents, non-treated lumber, and other materials.
- Use materials only where and when needed to complete the construction activity. Use safer alternative materials as much as possible. Reduce or eliminate use of hazardous materials onsite when practical.
- Document the location, time, chemicals applied, and applicator's name and qualifications.
- Keep an ample supply of spill clean up material near use areas. Train employees in spill clean up procedures.
- Avoid exposing applied materials to rainfall and runoff unless sufficient time has been allowed for them to dry.
- Discontinue use of erodible landscape material within 2 days prior to a forecasted rain event and materials should be covered and/or bermed.

- Provide containment for material use areas such as masons' areas or paint mixing/preparation areas to prevent materials/pollutants from entering stormwater.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Ensure employees and subcontractors throughout the job are using appropriate practices.

References

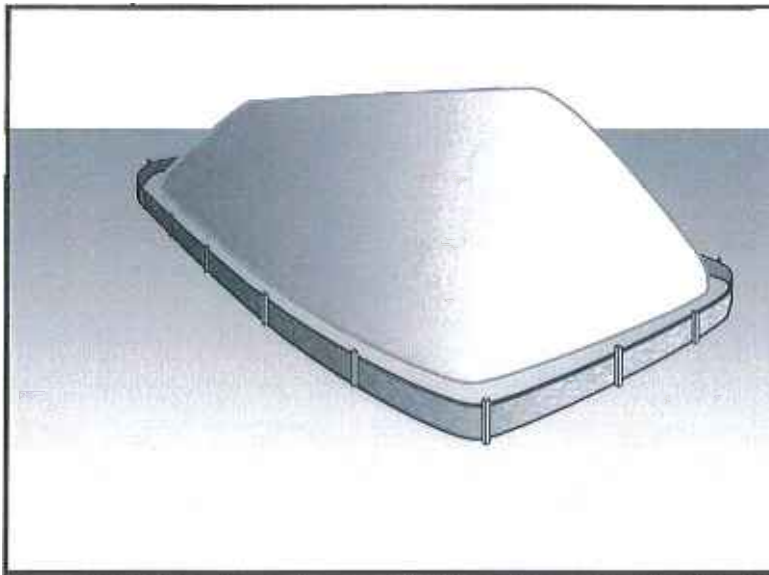
Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance, Working Group Working Paper; USEPA, April 1992.

Comments on Risk Assessments Risk Reduction Options for Cypermethrin: Docket No. OPP-2005-0293; California Stormwater Quality Association (CASQA) letter to USEPA, 2006. Environmental Hazard and General Labeling for Pyrethroid Non-Agricultural Outdoor Products, EPA-HQ-OPP-2008-0331-0021; USEPA, 2008.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.



Description and Purpose

Stockpile management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, soil amendments, sand, paving materials such as Portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate sub base or pre-mixed aggregate, asphalt minder (so called “cold mix” asphalt), and pressure treated wood.

Suitable Applications

Implement in all projects that stockpile soil and other loose materials.

Limitations

- Plastic sheeting as a stockpile protection is temporary and hard to manage in windy conditions. Where plastic is used, consider use of plastic tarps with nylon reinforcement which may be more durable than standard sheeting.
- Plastic sheeting can increase runoff volume due to lack of infiltration and potentially cause perimeter control failure.
- Plastic sheeting breaks down faster in sunlight.
- The use of Plastic materials and photodegradable plastics should be avoided.

Implementation

Protection of stockpiles is a year-round requirement. To properly manage stockpiles:

Treat Categories

EC	Erosion Control	
SE	Sediment Control	<input checked="" type="checkbox"/>
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	<input checked="" type="checkbox"/>
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	
Oil and Grease	<input checked="" type="checkbox"/>
Organics	<input checked="" type="checkbox"/>

Potential Alternatives

None

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- On larger sites, a minimum of 50 ft separation from concentrated flows of stormwater, drainage courses, and inlets is recommended.
- After 14 days of inactivity, a stockpile is non-active and requires further protection described below. All stockpiles are required to be protected as non-active stockpiles immediately if they are not scheduled to be used within 14 days.
- Protect all stockpiles from stormwater run-on using temporary perimeter sediment barriers such as compost berms (SE-13), temporary silt dikes (SE-12), fiber rolls (SE-5), silt fences (SE-1), sandbags (SE-8), gravel bags (SE-6), or biofilter bags (SE-14). Refer to the individual fact sheet for each of these controls for installation information.
- Implement wind erosion control practices as appropriate on all stockpiled material. For specific information, see WE-1, Wind Erosion Control.
- Manage stockpiles of contaminated soil in accordance with WM-7, Contaminated Soil Management.
- Place bagged materials on pallets and under cover.
- Ensure that stockpile coverings are installed securely to protect from wind and rain.
- Some plastic covers withstand weather and sunlight better than others. Select cover materials or methods based on anticipated duration of use.

Protection of Non-Active Stockpiles

A stockpile is considered non-active if it either is not used for 14 days or if it is scheduled not to be used for 14 days or more. Stockpiles need to be protected immediately if they are not scheduled to be used within 14 days. Non-active stockpiles of the identified materials should be protected as follows:

Soil stockpiles

- Soil stockpiles should be covered or protected with soil stabilization measures and a temporary perimeter sediment barrier at all times.
- Temporary vegetation should be considered for topsoil piles that will be stockpiled for extended periods.

Stockpiles of Portland cement concrete rubble, asphalt concrete, asphalt concrete rubble, aggregate base, or aggregate sub base

- Stockpiles should be covered and protected with a temporary perimeter sediment barrier at all times.

Stockpiles of "cold mix"

- Cold mix stockpiles should be placed on and covered with plastic sheeting or comparable material at all times and surrounded by a berm.

Stockpiles of fly ash, stucco, hydrated lime

- Stockpiles of materials that may raise the pH of runoff (i.e., basic materials) should be covered with plastic and surrounded by a berm.

Stockpiles/Storage of treated wood

- Treated wood should be covered with plastic sheeting or comparable material at all times and surrounded by a berm.

Protection of Active Stockpiles

A stockpile is active when it is being used or is scheduled to be used within 14 days of the previous use. Active stockpiles of the identified materials should be protected as follows:

- All stockpiles should be covered and protected with a temporary linear sediment barrier prior to the onset of precipitation.
- Stockpiles of “cold mix” and treated wood, and basic materials should be placed on and covered with plastic sheeting or comparable material and surrounded by a berm prior to the onset of precipitation.
- The downstream perimeter of an active stockpile should be protected with a linear sediment barrier or berm and runoff should be diverted around or away from the stockpile on the upstream perimeter.

Costs

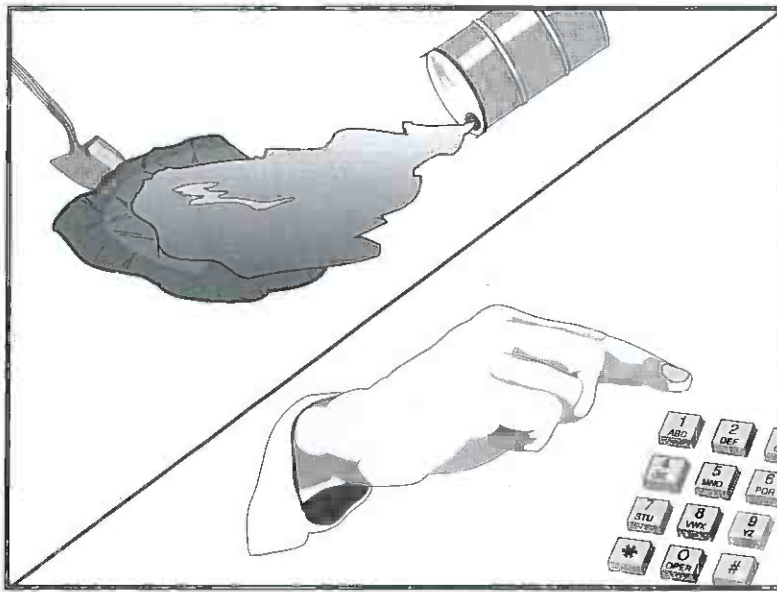
For cost information associated with stockpile protection refer to the individual erosion or sediment control BMP fact sheet considered for implementation (For example, refer to SE-1 Silt Fence for installation of silt fence around the perimeter of a stockpile.)

Inspection and Maintenance

- Stockpiles must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- It may be necessary to inspect stockpiles covered with plastic sheeting more frequently during certain conditions (for example, high winds or extreme heat).
- Repair and/or replace perimeter controls and covers as needed to keep them functioning properly.
- Sediment shall be removed when it reaches one-third of the barrier height.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.



Description and Purpose

Prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

This best management practice covers only spill prevention and control. However, WM-1, Materials Delivery and Storage, and WM-2, Material Use, also contain useful information, particularly on spill prevention. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

This BMP is suitable for all construction projects. Spill control procedures are implemented anytime chemicals or hazardous substances are stored on the construction site, including the following materials:

- Soil stabilizers/binders
- Dust palliatives
- Herbicides
- Growth inhibitors
- Fertilizers
- Deicing/anti-icing chemicals

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	
Oil and Grease	<input checked="" type="checkbox"/>
Organics	<input checked="" type="checkbox"/>

Potential Alternatives

None

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- Fuels
- Lubricants
- Other petroleum distillates

Limitations

- In some cases, it may be necessary to use a private spill cleanup company.
- This BMP applies to spills caused by the contractor and subcontractors.
- Procedures and practices presented in this BMP are general. Contractor should identify appropriate practices for the specific materials used or stored onsite

Implementation

The following steps will help reduce the stormwater impacts of leaks and spills:

Education

- Be aware that different materials pollute in different amounts. Make sure that each employee knows what a “significant spill” is for each material they use, and what is the appropriate response for “significant” and “insignificant” spills.
- Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.
- Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.
- Have contractor’s superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

- To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
- Store hazardous materials and wastes in covered containers and protect from vandalism.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- Train employees in spill prevention and cleanup.
- Designate responsible individuals to oversee and enforce control measures.
- Spills should be covered and protected from stormwater runoff during rainfall to the extent that it doesn’t compromise clean up activities.
- Do not bury or wash spills with water.

- Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.
- Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with WM-10, Liquid Waste Management.
- Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
- Place proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.
- Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

- Clean up leaks and spills immediately.
- Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be sent to either a certified laundry (rags) or disposed of as hazardous waste.
- Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

- Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Absorbent materials should be promptly removed and disposed of properly.
- Follow the practice below for a minor spill:
 - Contain the spread of the spill.
 - Recover spilled materials.
 - Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

- Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

- Spills should be cleaned up immediately:
 - Contain spread of the spill.
 - Notify the project foreman immediately.
 - If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
 - If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
 - If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

- For significant or hazardous spills that cannot be controlled by personnel in the immediate vicinity, the following steps should be taken:
 - Notify the local emergency response by dialing 911. In addition to 911, the contractor will notify the proper county officials. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
 - Notify the Governor's Office of Emergency Services Warning Center, (916) 845-8911.
 - For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
 - Notification should first be made by telephone and followed up with a written report.
 - The services of a spill's contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
 - Other agencies which may need to be consulted include, but are not limited to, the Fire Department, the Public Works Department, the Coast Guard, the Highway Patrol, the City/County Police Department, Department of Toxic Substances, California Division of Oil and Gas, Cal/OSHA, etc.

Reporting

- Report significant spills to local agencies, such as the Fire Department; they can assist in cleanup.
- Federal regulations require that any significant oil spill into a water body or onto an adjoining shoreline be reported to the National Response Center (NRC) at 800-424-8802 (24 hours).

Use the following measures related to specific activities:

Vehicle and Equipment Maintenance

- If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.
- Regularly inspect onsite vehicles and equipment for leaks and repair immediately
- Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.
- Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.
- Place drip pans or absorbent materials under paving equipment when not in use.
- Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
- Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around
- Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.
- Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

- If fueling must occur onsite, use designate areas, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.
- Discourage “topping off” of fuel tanks.
- Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

Costs

Prevention of leaks and spills is inexpensive. Treatment and/ or disposal of contaminated soil or water can be quite expensive.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.

- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur.
- Keep ample supplies of spill control and cleanup materials onsite, near storage, unloading, and maintenance areas.
- Update your spill prevention and control plan and stock cleanup materials as changes occur in the types of chemicals onsite.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.



Description and Purpose

Solid waste management procedures and practices are designed to prevent or reduce the discharge of pollutants to stormwater from solid or construction waste by providing designated waste collection areas and containers, arranging for regular disposal, and training employees and subcontractors.

Suitable Applications

This BMP is suitable for construction sites where the following wastes are generated or stored:

- Solid waste generated from trees and shrubs removed during land clearing, demolition of existing structures (rubble), and building construction
- Packaging materials including wood, paper, and plastic
- Scrap or surplus building materials including scrap metals, rubber, plastic, glass pieces, and masonry products
- Domestic wastes including food containers such as beverage cans, coffee cups, paper bags, plastic wrappers, and cigarettes
- Construction wastes including brick, mortar, timber, steel and metal scraps, pipe and electrical cuttings, non-hazardous equipment parts, styrofoam and other materials used to transport and package construction materials

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	
Oil and Grease	<input checked="" type="checkbox"/>
Organics	<input checked="" type="checkbox"/>

Potential Alternatives

None

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- Highway planting wastes, including vegetative material, plant containers, and packaging materials

Limitations

Temporary stockpiling of certain construction wastes may not necessitate stringent drainage related controls during the non-rainy season or in desert areas with low rainfall.

Implementation

The following steps will help keep a clean site and reduce stormwater pollution:

- Select designated waste collection areas onsite.
- Inform trash-hauling contractors that you will accept only watertight dumpsters for onsite use. Inspect dumpsters for leaks and repair any dumpster that is not watertight.
- Locate containers in a covered area or in a secondary containment.
- Provide an adequate number of containers with lids or covers that can be placed over the container to keep rain out or to prevent loss of wastes when it is windy.
- Cover waste containers at the end of each work day and when it is raining.
- Plan for additional containers and more frequent pickup during the demolition phase of construction.
- Collect site trash daily, especially during rainy and windy conditions.
- Remove this solid waste promptly since erosion and sediment control devices tend to collect litter.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.
- Do not hose out dumpsters on the construction site. Leave dumpster cleaning to the trash hauling contractor.
- Arrange for regular waste collection before containers overflow.
- Clean up immediately if a container does spill.
- Make sure that construction waste is collected, removed, and disposed of only at authorized disposal areas.

Education

- Have the contractor's superintendent or representative oversee and enforce proper solid waste management procedures and practices.
- Instruct employees and subcontractors on identification of solid waste and hazardous waste.
- Educate employees and subcontractors on solid waste storage and disposal procedures.

- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).
- Require that employees and subcontractors follow solid waste handling and storage procedures.
- Prohibit littering by employees, subcontractors, and visitors.
- Minimize production of solid waste materials wherever possible.

Collection, Storage, and Disposal

- Littering on the project site should be prohibited.
- To prevent clogging of the storm drainage system, litter and debris removal from drainage grates, trash racks, and ditch lines should be a priority.
- Trash receptacles should be provided in the contractor's yard, field trailer areas, and at locations where workers congregate for lunch and break periods.
- Litter from work areas within the construction limits of the project site should be collected and placed in watertight dumpsters at least weekly, regardless of whether the litter was generated by the contractor, the public, or others. Collected litter and debris should not be placed in or next to drain inlets, stormwater drainage systems, or watercourses.
- Dumpsters of sufficient size and number should be provided to contain the solid waste generated by the project.
- Full dumpsters should be removed from the project site and the contents should be disposed of by the trash hauling contractor.
- Construction debris and waste should be removed from the site biweekly or more frequently as needed.
- Construction material visible to the public should be stored or stacked in an orderly manner.
- Stormwater runoff should be prevented from contacting stored solid waste through the use of berms, dikes, or other temporary diversion structures or through the use of measures to elevate waste from site surfaces.
- Solid waste storage areas should be located at least 50 ft from drainage facilities and watercourses and should not be located in areas prone to flooding or ponding.
- Except during fair weather, construction and highway planting waste not stored in watertight dumpsters should be securely covered from wind and rain by covering the waste with tarps or plastic.
- Segregate potentially hazardous waste from non-hazardous construction site waste.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.

- For disposal of hazardous waste, see WM-6, Hazardous Waste Management. Have hazardous waste hauled to an appropriate disposal and/or recycling facility.
- Salvage or recycle useful vegetation debris, packaging and surplus building materials when practical. For example, trees and shrubs from land clearing can be used as a brush barrier, or converted into wood chips, then used as mulch on graded areas. Wood pallets, cardboard boxes, and construction scraps can also be recycled.

Costs

All of the above are low cost measures.

Inspection and Maintenance

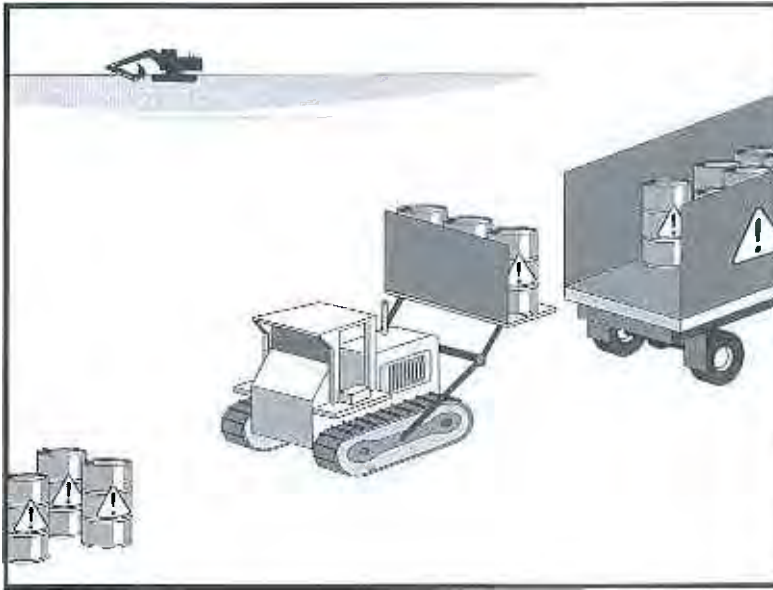
- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur
- Inspect construction waste area regularly.
- Arrange for regular waste collection.

References

Processes, Procedures and Methods to Control Pollution Resulting from All Construction Activity, 430/9-73-007, USEPA, 1973.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.



Description and Purpose

Prevent or reduce the discharge of pollutants to stormwater from hazardous waste through proper material use, waste disposal, and training of employees and subcontractors.

Suitable Applications

This best management practice (BMP) applies to all construction projects. Hazardous waste management practices are implemented on construction projects that generate waste from the use of:

- Petroleum Products
- Concrete Curing Compounds
- Palliatives
- Septic Wastes
- Stains
- Wood Preservatives
- Asphalt Products
- Pesticides
- Acids
- Paints
- Solvents
- Roofing Tar
- Any materials deemed a hazardous waste in California, Title 22 Division 4.5, or listed in 40 CFR Parts 110, 117, 261, or 302

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	
Nutrients	<input checked="" type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	<input checked="" type="checkbox"/>
Oil and Grease	<input checked="" type="checkbox"/>
Organics	<input checked="" type="checkbox"/>

Potential Alternatives

None

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In addition, sites with existing structures may contain wastes, which must be disposed of in accordance with federal, state, and local regulations. These wastes include:

- Sandblasting grit mixed with lead-, cadmium-, or chromium-based paints
- Asbestos
- PCBs (particularly in older transformers)

Limitations

- Hazardous waste that cannot be reused or recycled must be disposed of by a licensed hazardous waste hauler.
- Nothing in this BMP relieves the contractor from responsibility for compliance with federal, state, and local laws regarding storage, handling, transportation, and disposal of hazardous wastes.
- This BMP does not cover aerially deposited lead (ADL) soils. For ADL soils refer to WM-7, Contaminated Soil Management.

Implementation

The following steps will help reduce stormwater pollution from hazardous wastes:

Material Use

- Wastes should be stored in sealed containers constructed of a suitable material and should be labeled as required by Title 22 CCR, Division 4.5 and 49 CFR Parts 172, 173, 178, and 179.
- All hazardous waste should be stored, transported, and disposed as required in Title 22 CCR, Division 4.5 and 49 CFR 261-263.
- Waste containers should be stored in temporary containment facilities that should comply with the following requirements:
 - Temporary containment facility should provide for a spill containment volume equal to 1.5 times the volume of all containers able to contain precipitation from a 25-year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest tank within its boundary, whichever is greater.
 - Temporary containment facility should be impervious to the materials stored there for a minimum contact time of 72 hours.
 - Temporary containment facilities should be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be placed into drums after each rainfall. These liquids should be handled as a hazardous waste unless testing determines them to be non-hazardous. Non-hazardous liquids should be sent to an approved disposal site.
 - Sufficient separation should be provided between stored containers to allow for spill cleanup and emergency response access.

- Incompatible materials, such as chlorine and ammonia, should not be stored in the same temporary containment facility.
- Throughout the rainy season, temporary containment facilities should be covered during non-working days, and prior to rain events. Covered facilities may include use of plastic tarps for small facilities or constructed roofs with overhangs.
- Drums should not be overfilled, and wastes should not be mixed.
- Unless watertight, containers of dry waste should be stored on pallets.
- Do not over-apply herbicides and pesticides. Prepare only the amount needed. Follow the recommended usage instructions. Over application is expensive and environmentally harmful. Apply surface dressings in several smaller applications, as opposed to one large application. Allow time for infiltration and avoid excess material being carried offsite by runoff. Do not apply these chemicals just before it rains. People applying pesticides must be certified in accordance with federal and state regulations.
- Paint brushes and equipment for water and oil-based paints should be cleaned within a contained area and should not be allowed to contaminate site soils, watercourses, or drainage systems. Waste paints, thinners, solvents, residues, and sludges that cannot be recycled or reused should be disposed of as hazardous waste. When thoroughly dry, latex paint and paint cans, used brushes, rags, absorbent materials, and drop cloths should be disposed of as solid waste.
- Do not clean out brushes or rinse paint containers into the dirt, street, gutter, storm drain, or stream. "Paint out" brushes as much as possible. Rinse water-based paints to the sanitary sewer. Filter and reuse thinners and solvents. Dispose of excess oil-based paints and sludge as hazardous waste.
- The following actions should be taken with respect to temporary contaminant:
 - Ensure that adequate hazardous waste storage volume is available.
 - Ensure that hazardous waste collection containers are conveniently located.
 - Designate hazardous waste storage areas onsite away from storm drains or watercourses and away from moving vehicles and equipment to prevent accidental spills.
 - Minimize production or generation of hazardous materials and hazardous waste on the job site.
 - Use containment berms in fueling and maintenance areas and where the potential for spills is high.
 - Segregate potentially hazardous waste from non-hazardous construction site debris.
 - Keep liquid or semi-liquid hazardous waste in appropriate containers (closed drums or similar) and under cover.

- Clearly label all hazardous waste containers with the waste being stored and the date of accumulation.
- Place hazardous waste containers in secondary containment.
- Do not allow potentially hazardous waste materials to accumulate on the ground.
- Do not mix wastes.
- Use all of the product before disposing of the container.
- Do not remove the original product label; it contains important safety and disposal information.

Waste Recycling Disposal

- Select designated hazardous waste collection areas onsite.
- Hazardous materials and wastes should be stored in covered containers and protected from vandalism.
- Place hazardous waste containers in secondary containment.
- Do not mix wastes, this can cause chemical reactions, making recycling impossible and complicating disposal.
- Recycle any useful materials such as used oil or water-based paint.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.
- Arrange for regular waste collection before containers overflow.
- Make sure that hazardous waste (e.g., excess oil-based paint and sludge) is collected, removed, and disposed of only at authorized disposal areas.

Disposal Procedures

- Waste should be disposed of by a licensed hazardous waste transporter at an authorized and licensed disposal facility or recycling facility utilizing properly completed Uniform Hazardous Waste Manifest forms.
- A Department of Health Services certified laboratory should sample waste to determine the appropriate disposal facility.
- Properly dispose of rainwater in secondary containment that may have mixed with hazardous waste.
- Attention is directed to "Hazardous Material", "Contaminated Material", and "Aerially Deposited Lead" of the contract documents regarding the handling and disposal of hazardous materials.

Education

- Educate employees and subcontractors on hazardous waste storage and disposal procedures.
- Educate employees and subcontractors on potential dangers to humans and the environment from hazardous wastes.
- Instruct employees and subcontractors on safety procedures for common construction site hazardous wastes.
- Instruct employees and subcontractors in identification of hazardous and solid waste.
- Hold regular meetings to discuss and reinforce hazardous waste management procedures (incorporate into regular safety meetings).
- The contractor's superintendent or representative should oversee and enforce proper hazardous waste management procedures and practices.
- Make sure that hazardous waste is collected, removed, and disposed of only at authorized disposal areas.
- Warning signs should be placed in areas recently treated with chemicals.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- If a container does spill, clean up immediately.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur
- Hazardous waste should be regularly collected.
- A foreman or construction supervisor should monitor onsite hazardous waste storage and disposal procedures.
- Waste storage areas should be kept clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored.
- Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

- Hazardous spills should be cleaned up and reported in conformance with the applicable Material Safety Data Sheet (MSDS) and the instructions posted at the project site.
- The National Response Center, at (800) 424-8802, should be notified of spills of federal reportable quantities in conformance with the requirements in 40 CFR parts 110, 117, and 302. Also notify the Governors Office of Emergency Services Warning Center at (916) 845-8911.
- A copy of the hazardous waste manifests should be provided.

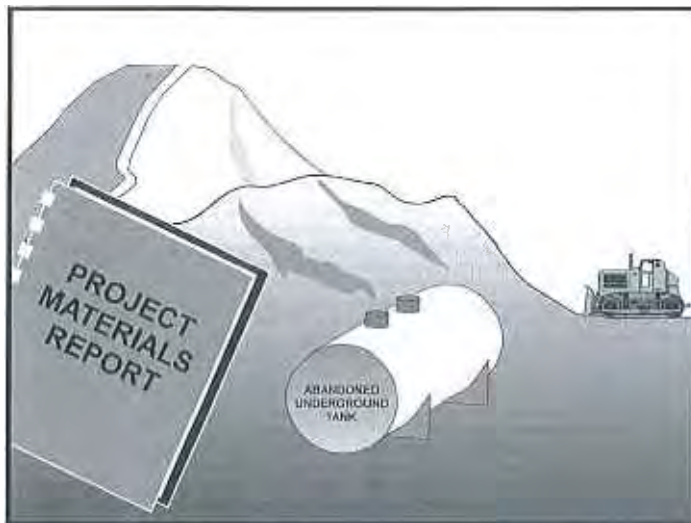
References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Processes, Procedures and Methods to Control Pollution Resulting from All Construction Activity, 430/9-73-007, USEPA, 1973.

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Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Description and Purpose

Prevent or reduce the discharge of pollutants to stormwater from contaminated soil and highly acidic or alkaline soils by conducting pre-construction surveys, inspecting excavations regularly, and remediating contaminated soil promptly.

Suitable Applications

Contaminated soil management is implemented on construction projects in highly urbanized or industrial areas where soil contamination may have occurred due to spills, illicit discharges, aerial deposition, past use and leaks from underground storage tanks.

Limitations

Contaminated soils that cannot be treated onsite must be disposed of offsite by a licensed hazardous waste hauler. The presence of contaminated soil may indicate contaminated water as well. See NS-2, Dewatering Operations, for more information.

The procedures and practices presented in this BMP are general. The contractor should identify appropriate practices and procedures for the specific contaminants known to exist or discovered onsite.

Implementation

Most owners and developers conduct pre-construction environmental assessments as a matter of routine. Contaminated soils are often identified during project planning and development with known locations identified in the plans, specifications and in the SWPPP. The contractor should review applicable reports and investigate appropriate call-outs in the

Targeted Constituents

Sediment	
Nutrients	<input checked="" type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	<input checked="" type="checkbox"/>
Oil and Grease	<input checked="" type="checkbox"/>
Organics	<input checked="" type="checkbox"/>

Potential Alternatives

None

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plans, specifications, and SWPPP. Recent court rulings holding contractors liable for cleanup costs when they unknowingly move contaminated soil highlight the need for contractors to confirm a site assessment is completed before earth moving begins.

The following steps will help reduce stormwater pollution from contaminated soil:

- Conduct thorough, pre-construction inspections of the site and review documents related to the site. If inspection or reviews indicated presence of contaminated soils, develop a plan before starting work.
- Look for contaminated soil as evidenced by discoloration, odors, differences in soil properties, abandoned underground tanks or pipes, or buried debris.
- Prevent leaks and spills. Contaminated soil can be expensive to treat and dispose of properly. However, addressing the problem before construction is much less expensive than after the structures are in place.
- The contractor may further identify contaminated soils by investigating:
 - Past site uses and activities
 - Detected or undetected spills and leaks
 - Acid or alkaline solutions from exposed soil or rock formations high in acid or alkaline forming elements
 - Contaminated soil as evidenced by discoloration, odors, differences in soil properties, abandoned underground tanks or pipes, or buried debris.
 - Suspected soils should be tested at a certified laboratory.

Education

- Have employees and subcontractors complete a safety training program which meets 29 CFR 1910.120 and 8 CCR 5192 covering the potential hazards as identified, prior to performing any excavation work at the locations containing material classified as hazardous.
- Educate employees and subcontractors in identification of contaminated soil and on contaminated soil handling and disposal procedures.
- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).

Handling Procedures for Material with Aerially Deposited Lead (ADL)

- Materials from areas designated as containing (ADL) may, if allowed by the contract special provisions, be excavated, transported, and used in the construction of embankments and/or backfill.
- Excavation, transportation, and placement operations should result in no visible dust.
- Caution should be exercised to prevent spillage of lead containing material during transport.

- Quality should be monitored during excavation of soils contaminated with lead.

Handling Procedures for Contaminated Soils

- Minimize onsite storage. Contaminated soil should be disposed of properly in accordance with all applicable regulations. All hazardous waste storage will comply with the requirements in Title 22, CCR, Sections 66265.250 to 66265.260.
- Test suspected soils at an approved certified laboratory.
- Work with the local regulatory agencies to develop options for treatment or disposal if the soil is contaminated.
- Avoid temporary stockpiling of contaminated soils or hazardous material.
- Take the following precautions if temporary stockpiling is necessary:
 - Cover the stockpile with plastic sheeting or tarps.
 - Install a berm around the stockpile to prevent runoff from leaving the area.
 - Do not stockpile in or near storm drains or watercourses.
- Remove contaminated material and hazardous material on exteriors of transport vehicles and place either into the current transport vehicle or into the excavation prior to the vehicle leaving the exclusion zone.
- Monitor the air quality continuously during excavation operations at all locations containing hazardous material.
- Procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work, including registration for transporting vehicles carrying the contaminated material and the hazardous material.
- Collect water from decontamination procedures and treat or dispose of it at an appropriate disposal site.
- Collect non-reusable protective equipment, once used by any personnel, and dispose of at an appropriate disposal site.
- Install temporary security fence to surround and secure the exclusion zone. Remove fencing when no longer needed.
- Excavate, transport, and dispose of contaminated material and hazardous material in accordance with the rules and regulations of the following agencies (the specifications of these agencies supersede the procedures outlined in this BMP):
 - United States Department of Transportation (USDOT)
 - United States Environmental Protection Agency (USEPA)
 - California Environmental Protection Agency (CAL-EPA)

- California Division of Occupation Safety and Health Administration (CAL-OSHA)
- Local regulatory agencies

Procedures for Underground Storage Tank Removals

- Prior to commencing tank removal operations, obtain the required underground storage tank removal permits and approval from the federal, state, and local agencies that have jurisdiction over such work.
- To determine if it contains hazardous substances, arrange to have tested, any liquid or sludge found in the underground tank prior to its removal.
- Following the tank removal, take soil samples beneath the excavated tank and perform analysis as required by the local agency representative(s).
- The underground storage tank, any liquid or sludge found within the tank, and all contaminated substances and hazardous substances removed during the tank removal and transported to disposal facilities permitted to accept such waste.

Water Control

- All necessary precautions and preventive measures should be taken to prevent the flow of water, including ground water, from mixing with hazardous substances or underground storage tank excavations. Such preventative measures may consist of, but are not limited to, berms, cofferdams, grout curtains, freeze walls, and seal course concrete or any combination thereof.
- If water does enter an excavation and becomes contaminated, such water, when necessary to proceed with the work, should be discharged to clean, closed top, watertight transportable holding tanks, treated, and disposed of in accordance with federal, state, and local laws.

Costs

Prevention of leaks and spills is inexpensive. Treatment or disposal of contaminated soil can be quite expensive.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Arrange for contractor's Water Pollution Control Manager, foreman, and/or construction supervisor to monitor onsite contaminated soil storage and disposal procedures.
- Monitor air quality continuously during excavation operations at all locations containing hazardous material.
- Coordinate contaminated soils and hazardous substances/waste management with the appropriate federal, state, and local agencies.

Contaminated Soil Management **WM-7**

- Implement WM-4, Spill Prevention and Control, to prevent leaks and spills as much as possible.

References

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Processes, Procedures and Methods to Control Pollution Resulting from All Construction Activity, 430/9-73-007, USEPA, 1973.

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Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.



Description and Purpose

Prevent the discharge of pollutants to stormwater from concrete waste by conducting washout onsite or offsite in a designated area, and by employee and subcontractor training.

The General Permit incorporates Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Many types of construction materials, including mortar, concrete, stucco, cement and block and their associated wastes have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows and raising pH to levels outside the accepted range.

Suitable Applications

Concrete waste management procedures and practices are implemented on construction projects where:

- Concrete is used as a construction material or where concrete dust and debris result from demolition activities.
- Slurries containing Portland cement concrete (PCC) are generated, such as from saw cutting, coring, grinding, grooving, and hydro-concrete demolition.
- Concrete trucks and other concrete-coated equipment are washed onsite.

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	<input checked="" type="checkbox"/>
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	
Trash	
Metals	<input checked="" type="checkbox"/>
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

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- Mortar-mixing stations exist.
- Stucco mixing and spraying.
- See also NS-8, Vehicle and Equipment Cleaning.

Limitations

- Offsite washout of concrete wastes may not always be possible.
- Multiple washouts may be needed to assure adequate capacity and to allow for evaporation.

Implementation

The following steps will help reduce stormwater pollution from concrete wastes:

- Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
- Store dry and wet materials under cover, away from drainage areas. Refer to WM-1, Material Delivery and Storage for more information.
- Avoid mixing excess amounts of concrete.
- Perform washout of concrete trucks in designated areas only, where washout will not reach stormwater.
- Do not wash out concrete trucks into storm drains, open ditches, streets, streams or onto the ground. Trucks should always be washed out into designated facilities.
- Do not allow excess concrete to be dumped onsite, except in designated areas.
- For onsite washout:
 - On larger sites, it is recommended to locate washout areas at least 50 feet from storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
 - Washout wastes into the temporary washout where the concrete can set, be broken up, and then disposed properly.
 - Washouts shall be implemented in a manner that prevents leaching to underlying soils. Washout containers must be water tight and washouts on or in the ground must be lined with a suitable impervious liner, typically a plastic type material.
- Do not wash sweepings from exposed aggregate concrete into the street or storm drain. Collect and return sweepings to aggregate base stockpile or dispose in the trash.
- See typical concrete washout installation details at the end of this fact sheet.

Education

- Educate employees, subcontractors, and suppliers on the concrete waste management techniques described herein.

- Arrange for contractor's superintendent or representative to oversee and enforce concrete waste management procedures.
- Discuss the concrete management techniques described in this BMP (such as handling of concrete waste and washout) with the ready-mix concrete supplier before any deliveries are made.

Concrete Demolition Wastes

- Stockpile concrete demolition waste in accordance with BMP WM-3, Stockpile Management.
- Dispose of or recycle hardened concrete waste in accordance with applicable federal, state or local regulations.

Concrete Slurry Wastes

- PCC and AC waste should not be allowed to enter storm drains or watercourses.
- PCC and AC waste should be collected and disposed of or placed in a temporary concrete washout facility (as described in Onsite Temporary Concrete Washout Facility, Concrete Transit Truck Washout Procedures, below).
- A foreman or construction supervisor should monitor onsite concrete working tasks, such as saw cutting, coring, grinding and grooving to ensure proper methods are implemented.
- Saw-cut concrete slurry should not be allowed to enter storm drains or watercourses. Residue from grinding operations should be picked up by means of a vacuum attachment to the grinding machine or by sweeping. Saw cutting residue should not be allowed to flow across the pavement and should not be left on the surface of the pavement. See also NS-3, Paving and Grinding Operations; and WM-10, Liquid Waste Management.
- Concrete slurry residue should be disposed in a temporary washout facility (as described in Onsite Temporary Concrete Washout Facility, Concrete Transit Truck Washout Procedures, below) and allowed to dry. Dispose of dry slurry residue in accordance with WM-5, Solid Waste Management.

Onsite Temporary Concrete Washout Facility, Transit Truck Washout Procedures

- Temporary concrete washout facilities should be located a minimum of 50 ft from storm drain inlets, open drainage facilities, and watercourses. Each facility should be located away from construction traffic or access areas to prevent disturbance or tracking.
- A sign should be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.
- Temporary concrete washout facilities should be constructed above grade or below grade at the option of the contractor. Temporary concrete washout facilities should be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations.

- Temporary washout facilities should have a temporary pit or bermed areas of sufficient volume to completely contain all liquid and waste concrete materials generated during washout procedures.
- Temporary washout facilities should be lined to prevent discharge to the underlying ground or surrounding area.
- Washout of concrete trucks should be performed in designated areas only.
- Only concrete from mixer truck chutes should be washed into concrete wash out.
- Concrete washout from concrete pumper bins can be washed into concrete pumper trucks and discharged into designated washout area or properly disposed of or recycled offsite.
- Once concrete wastes are washed into the designated area and allowed to harden, the concrete should be broken up, removed, and disposed of per WM-5, Solid Waste Management. Dispose of or recycle hardened concrete on a regular basis.
- Temporary Concrete Washout Facility (Type Above Grade)
 - Temporary concrete washout facility (type above grade) should be constructed as shown on the details at the end of this BMP, with a recommended minimum length and minimum width of 10 ft; however, smaller sites or jobs may only need a smaller washout facility. With any washout, always maintain a sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations.
 - Materials used to construct the washout area should conform to the provisions detailed in their respective BMPs (e.g., SE-8 Sandbag Barrier).
 - Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
 - Alternatively, portable removable containers can be used as above grade concrete washouts. Also called a “roll-off”; this concrete washout facility should be properly sealed to prevent leakage and should be removed from the site and replaced when the container reaches 75% capacity.
- Temporary Concrete Washout Facility (Type Below Grade)
 - Temporary concrete washout facilities (type below grade) should be constructed as shown on the details at the end of this BMP, with a recommended minimum length and minimum width of 10 ft. The quantity and volume should be sufficient to contain all liquid and concrete waste generated by washout operations.
 - Lath and flagging should be commercial type.
 - Plastic lining material should be a minimum of 10 mil polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.

- The base of a washout facility should be free of rock or debris that may damage a plastic liner.

Removal of Temporary Concrete Washout Facilities

- When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and properly disposed or recycled in accordance with federal, state or local regulations. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and properly disposed or recycled in accordance with federal, state or local regulations.
- Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

Costs

All of the above are low cost measures. Roll-off concrete washout facilities can be more costly than other measures due to removal and replacement; however, provide a cleaner alternative to traditional washouts. The type of washout facility, size, and availability of materials will determine the cost of the washout.

Inspection and Maintenance

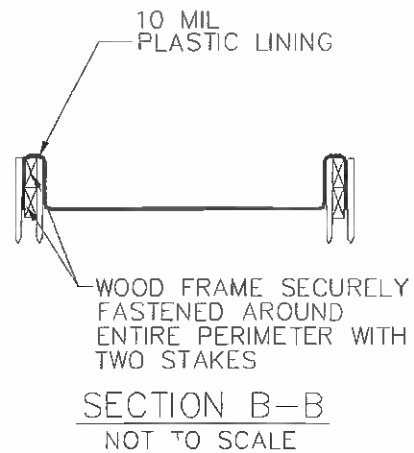
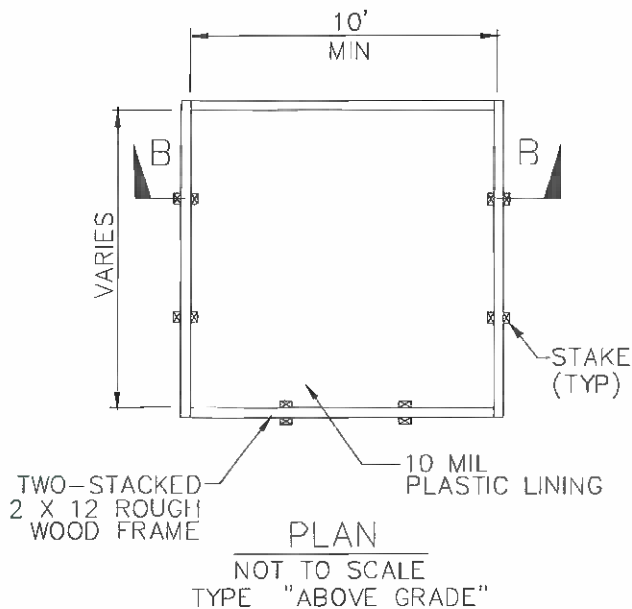
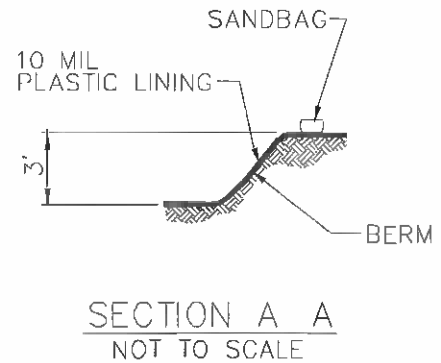
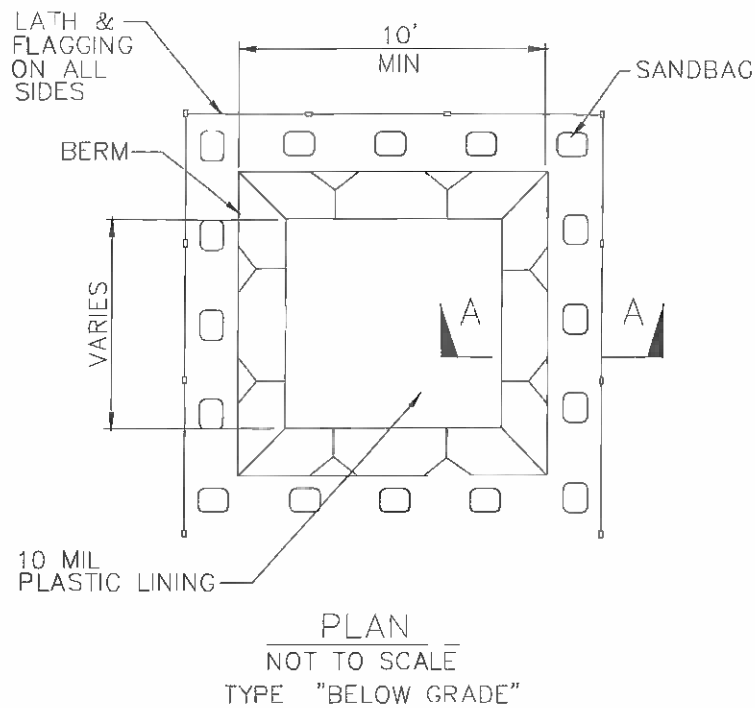
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Temporary concrete washout facilities should be maintained to provide adequate holding capacity with a minimum freeboard of 4 in. for above grade facilities and 12 in. for below grade facilities. Maintaining temporary concrete washout facilities should include removing and disposing of hardened concrete and returning the facilities to a functional condition. Hardened concrete materials should be removed and properly disposed or recycled in accordance with federal, state or local regulations.
- Washout facilities must be cleaned, or new facilities must be constructed and ready for use once the washout is 75% full.
- Inspect washout facilities for damage (e.g. torn liner, evidence of leaks, signage, etc.). Repair all identified damage.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

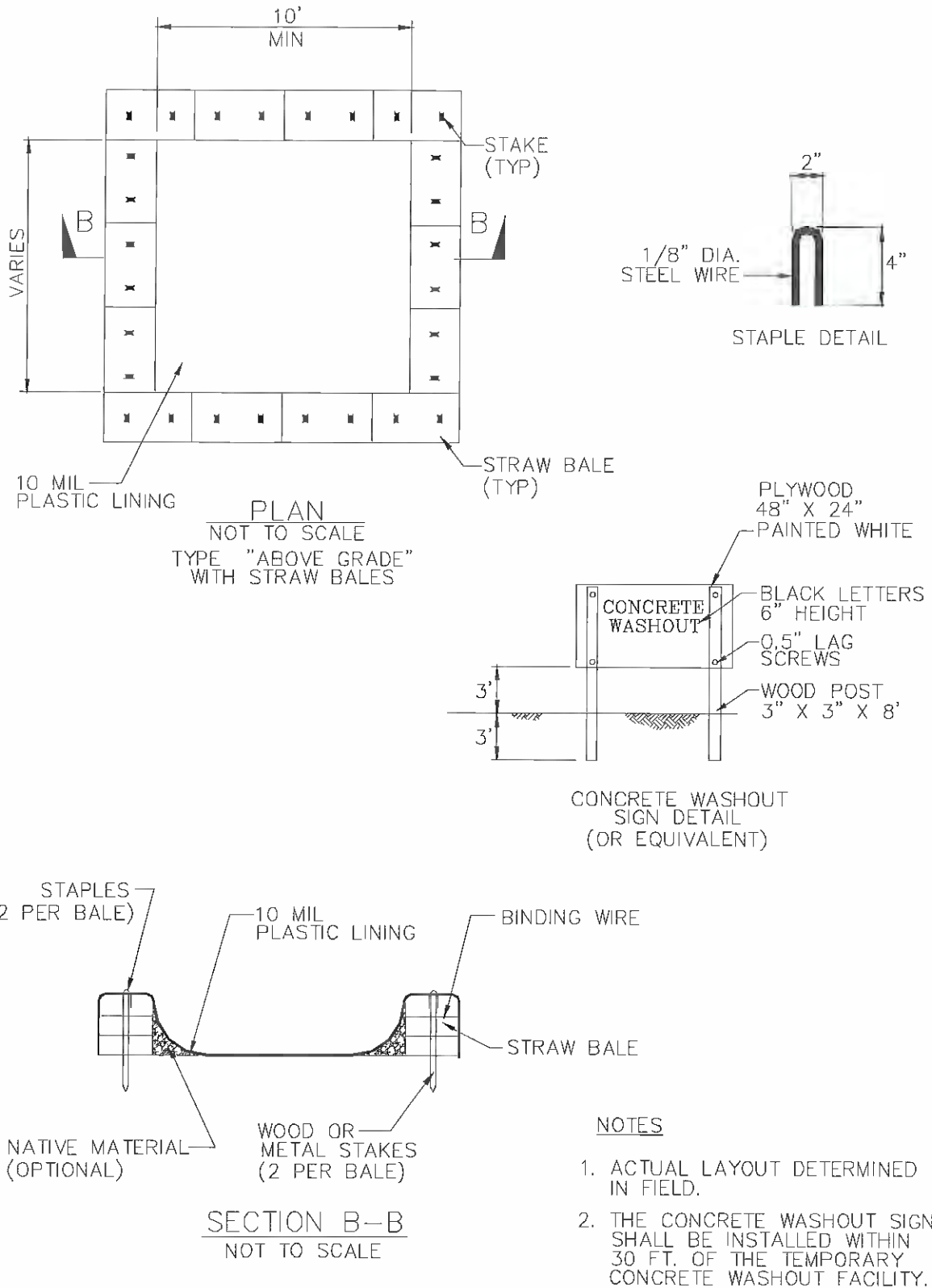
Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000, Updated March 2003.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

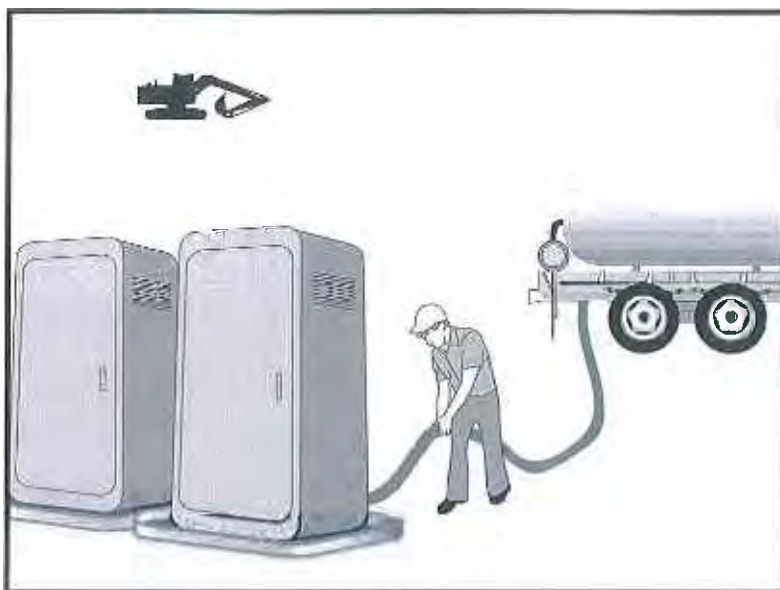


NOTES

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.



Sanitary/Septic Waste Management WM-9



Description and Purpose

Proper sanitary and septic waste management prevent the discharge of pollutants to stormwater from sanitary and septic waste by providing convenient, well-maintained facilities, and arranging for regular service and disposal.

Suitable Applications

Sanitary septic waste management practices are suitable for use at all construction sites that use temporary or portable sanitary and septic waste systems.

Limitations

None identified.

Implementation

Sanitary or septic wastes should be treated or disposed of in accordance with state and local requirements. In many cases, one contract with a local facility supplier will be all that it takes to make sure sanitary wastes are properly disposed.

Storage and Disposal Procedures

- Temporary sanitary facilities should be located away from drainage facilities, watercourses, and from traffic circulation. If site conditions allow, place portable facilities a minimum of 50 feet from drainage conveyances and traffic areas. When subjected to high winds or risk of high winds, temporary sanitary facilities should be secured to prevent overturning.

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ Primary Category
- ☒ Secondary Category

Targeted Constituents

Sediment	
Nutrients	<input checked="" type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	
Bacteria	<input checked="" type="checkbox"/>
Oil and Grease	
Organics	<input checked="" type="checkbox"/>

Potential Alternatives

None

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Sanitary/Septic Waste Management WM-9

- Temporary sanitary facilities must be equipped with containment to prevent discharge of pollutants to the stormwater drainage system of the receiving water.
- Consider safety as well as environmental implications before placing temporary sanitary facilities.
- Wastewater should not be discharged or buried within the project site.
- Sanitary and septic systems that discharge directly into sanitary sewer systems, where permissible, should comply with the local health agency, city, county, and sewer district requirements.
- Only reputable, licensed sanitary and septic waste haulers should be used.
- Sanitary facilities should be located in a convenient location.
- Temporary septic systems should treat wastes to appropriate levels before discharging.
- If using an onsite disposal system (OSDS), such as a septic system, local health agency requirements must be followed.
- Temporary sanitary facilities that discharge to the sanitary sewer system should be properly connected to avoid illicit discharges.
- Sanitary and septic facilities should be maintained in good working order by a licensed service.
- Regular waste collection by a licensed hauler should be arranged before facilities overflow.
- If a spill does occur from a temporary sanitary facility, follow federal, state and local regulations for containment and clean-up.

Education

- Educate employees, subcontractors, and suppliers on sanitary and septic waste storage and disposal procedures.
- Educate employees, subcontractors, and suppliers of potential dangers to humans and the environment from sanitary and septic wastes.
- Instruct employees, subcontractors, and suppliers in identification of sanitary and septic waste.
- Hold regular meetings to discuss and reinforce the use of sanitary facilities (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.

Costs

All of the above are low cost measures.

Sanitary/Septic Waste Management WM-9

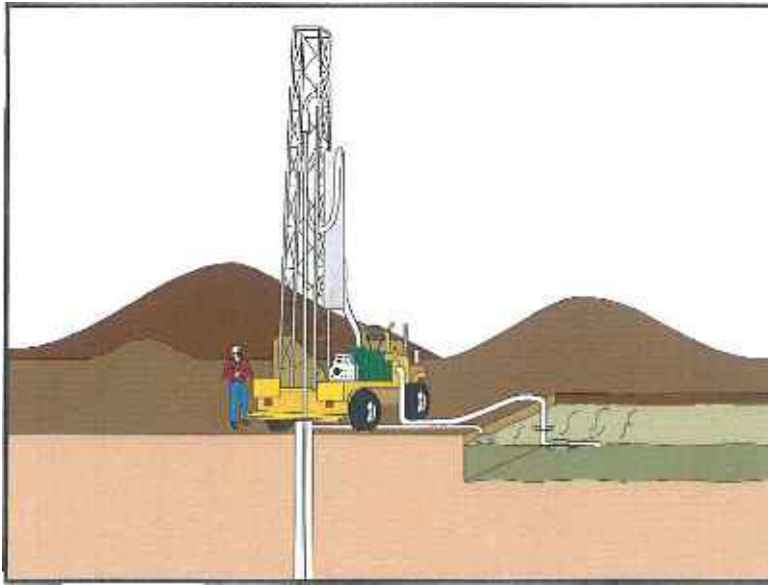
Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Arrange for regular waste collection.
- If high winds are expected, portable sanitary facilities must be secured with spikes or weighed down to prevent over turning.
- If spills or leaks from sanitary or septic facilities occur that are not contained and discharge from the site, non-visible sampling of site discharge may be required. Refer to the General Permit or to your project specific Construction Site Monitoring Plan to determine if and where sampling is required.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.



Description and Purpose

Liquid waste management includes procedures and practices to prevent discharge of pollutants to the storm drain system or to watercourses as a result of the creation, collection, and disposal of non-hazardous liquid wastes.

Suitable Applications

Liquid waste management is applicable to construction projects that generate any of the following non-hazardous by-products, residuals, or wastes:

- Drilling slurries and drilling fluids
- Grease-free and oil-free wastewater and rinse water
- Dredgings
- Other non-stormwater liquid discharges not permitted by separate permits

Limitations

- Disposal of some liquid wastes may be subject to specific laws and regulations or to requirements of other permits secured for the construction project (e.g., NPDES permits, Army Corps permits, Coastal Commission permits, etc.).
- Liquid waste management does not apply to dewatering operations (NS-2 Dewatering Operations), solid waste management (WM-5, Solid Waste Management), hazardous wastes (WM-6, Hazardous Waste Management), or

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	<input checked="" type="checkbox"/>

Legend:

- ☒ Primary Objective
- ☒ Secondary Objective

Targeted Constituents

Sediment	<input checked="" type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	
Oil and Grease	<input checked="" type="checkbox"/>
Organics	

Potential Alternatives

None

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concrete slurry residue (WM-8, Concrete Waste Management).

- Typical permitted non-stormwater discharges can include: water line flushing; landscape irrigation; diverted stream flows; rising ground waters; uncontaminated pumped ground water; discharges from potable water sources; foundation drains; irrigation water; springs; water from crawl space pumps; footing drains; lawn watering; flows from riparian habitats and wetlands; and discharges or flows from emergency fire fighting activities.

Implementation

General Practices

- Instruct employees and subcontractors how to safely differentiate between non-hazardous liquid waste and potential or known hazardous liquid waste.
- Instruct employees, subcontractors, and suppliers that it is unacceptable for any liquid waste to enter any storm drainage device, waterway, or receiving water.
- Educate employees and subcontractors on liquid waste generating activities and liquid waste storage and disposal procedures.
- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).
- Verify which non-stormwater discharges are permitted by the statewide NPDES permit; different regions might have different requirements not outlined in this permit.
- Apply NS-8, Vehicle and Equipment Cleaning for managing wash water and rinse water from vehicle and equipment cleaning operations.

Containing Liquid Wastes

- Drilling residue and drilling fluids should not be allowed to enter storm drains and watercourses and should be disposed of.
- If an appropriate location is available, drilling residue and drilling fluids that are exempt under Title 23, CCR § 2511(g) may be dried by infiltration and evaporation in a containment facility constructed in conformance with the provisions concerning the Temporary Concrete Washout Facilities detailed in WM-8, Concrete Waste Management.
- Liquid wastes generated as part of an operational procedure, such as water-laden dredged material and drilling mud, should be contained and not allowed to flow into drainage channels or receiving waters prior to treatment.
- Liquid wastes should be contained in a controlled area such as a holding pit, sediment basin, roll-off bin, or portable tank.
- Containment devices must be structurally sound and leak free.
- Containment devices must be of sufficient quantity or volume to completely contain the liquid wastes generated.

- Precautions should be taken to avoid spills or accidental releases of contained liquid wastes. Apply the education measures and spill response procedures outlined in WM-4, Spill Prevention and Control.
- Containment areas or devices should not be located where accidental release of the contained liquid can threaten health or safety or discharge to water bodies, channels, or storm drains.

Capturing Liquid Wastes

- Capture all liquid wastes that have the potential to affect the storm drainage system (such as wash water and rinse water from cleaning walls or pavement), before they run off a surface.
- Do not allow liquid wastes to flow or discharge uncontrolled. Use temporary dikes or berms to intercept flows and direct them to a containment area or device for capture.
- Use a sediment trap (SE-3, Sediment Trap) for capturing and treating sediment laden liquid waste or capture in a containment device and allow sediment to settle.

Disposing of Liquid Wastes

- A typical method to handle liquid waste is to dewater the contained liquid waste, using procedures such as described in NS-2, Dewatering Operations, and SE-2, Sediment Basin, and dispose of resulting solids per WM-5, Solid Waste Management.
- Methods of disposal for some liquid wastes may be prescribed in Water Quality Reports, NPDES permits, Environmental Impact Reports, 401 or 404 permits, and local agency discharge permits, etc. Review the SWPPP to see if disposal methods are identified.
- Liquid wastes, such as from dredged material, may require testing and certification whether it is hazardous or not before a disposal method can be determined.
- For disposal of hazardous waste, see WM-6, Hazardous Waste Management.
- If necessary, further treat liquid wastes prior to disposal. Treatment may include, though is not limited to, sedimentation, filtration, and chemical neutralization.

Costs

Prevention costs for liquid waste management are minimal. Costs increase if cleanup or fines are involved.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and of two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur.

- Remove deposited solids in containment areas and capturing devices as needed and at the completion of the task. Dispose of any solids as described in WM-5, Solid Waste Management.
- Inspect containment areas and capturing devices and repair as needed.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Appendix H BMP Inspection Form & Checklist

BMP INSPECTION REPORT

Date and Time of Inspection:			Date Report Written:		
Inspection Type: (Circle One)	Weekly <i>Complete Parts I, II, III and VII</i>	Pre-Qualifying Precipitation Event (QPE) <i>Complete Parts I, II, III, IV and VII</i>	During-QPE <i>Complete Parts I, II, III, V and VII</i>	Post-QPE <i>Complete Parts I, II, III, VI and VII</i>	<i>Inactive Project Complete Parts I, II, III and VII</i>
Part I. General Information					
Site Information					
Construction Site Name:					
Construction stage and complete activities:				Approximate area of site that is exposed:	
Photos Taken: (Circle one)	Yes	No		Photo Reference IDs:	
Weather					
Estimate storm beginning: (date and time)			Estimate storm duration: (hours)		
Estimate time since last storm: (days or hours)			Rain gauge reading and location: (in)		
<p>Is a "Qualifying Precipitation Event" predicted or did one occur (i.e., any weather pattern with a 50% chance of 0.5" or more within a 24-hr period when 0.5" has been forecast and continues on subsequent 24-hour periods when 0.25" of precipitation or more is forecast)? (Y/N)</p> <p>If yes, summarize forecast:</p>					
<p>Exception Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as electrical storms, flooding, and high winds above 40 miles per hour.</p>					
Inspector Information					
Inspector Name:			Inspector Title:		
Inspector Certification:			Date:		

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)			
Stockpiled construction material not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system			
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during precipitation events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and nonhazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters			
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action implemented (date)
Vehicle and equipment leaks are cleaned immediately and disposed of properly			
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use			
Erodible landscape material has not been applied 2 days before a forecasted precipitation event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations			
Non-Stormwater Management			
Non-Stormwater discharges are properly controlled			
Vehicles are washed in a manner to prevent non-stormwater discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-stormwater discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented			
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site			
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained			

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (date)
Inspect immediate access roads prior to forecasted precipitation			
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.			
Other			
Are the project SWPPP and BMP plans up to date, available onsite and being properly implemented?			
Is the posting of the project's unique WDID number, waiver identification number, and site and project contact information publicly accessible?			
Part III. Descriptions of BMP Deficiencies			
Deficiency	Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.		
	Start Date	Action	
1.			
2.			
3.			
4.			
Part IV. Additional Pre-QPE Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutant(s).			
		Yes, No, N/A	
Do stormwater storage and containment areas have adequate freeboard? If not, complete Part III.			
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.			
Notes:			
Are stormwater storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.			
Notes:			

Part V. Additional During-QPE Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed

Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description

Part VI. Additional Post-QPE Observations. Visually observe (inspect) stormwater discharges at all discharge locations within 96 hours after each qualifying precipitation event and observe (inspect) the discharge of stored or contained stormwater that is derived from and discharged subsequent to a Qualifying Precipitation Event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.

Discharge Location, Storage or Containment Area	Visual Observation

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required

Required Actions	Implementation Date

Appendix I Training Reporting Form

Contractor Personnel Training Log
Stormwater Management Training Log and Documentation
LAWA Airfield and Terminal Modernization Program
Roadway Improvements
WDID #

Stormwater Management Topic: (check as appropriate)

- ☐ Good Housekeeping BMPs ☐ Erosion Control BMPs
- ☐ Sediment Control BMPs ☐ Tracking Control
- ☐ Non-stormwater Management BMPs ☐ Waste Management & Pollution Control BMPs
- ☐ BMP Implementation Activities ☐ Advanced BMPs
- ☐ Identification of QSPs and QSP Delegates

Specific Training Objective: _____

Location: _____

Date: _____

Instructor: _____

Telephone: _____

Training Length (hours): _____

Attendee Roster (Attach additional forms if necessary)

Name	Company	Phone

As needed, add proof of external training (e.g., course completion certificates, credentials).

QSP Delegate Training Log

Stormwater Management Training Log and Documentation

Project Name: LAWA ATMP – Roadway Improvements

WDID #: _____

QSP Delegate Name: _____

Delegated Responsibilities:

- ☐ Stormwater Visual Inspections
- ☐ Sampling
- ☐ BMP Inspections
- ☐ BMP Maintenance and Repair

Foundational Training

Topic	Date Completed	QSP Trainer
<input type="checkbox"/> Roles and Responsibilities		
<input type="checkbox"/> Forecast Information		
<input type="checkbox"/> Documentation and Reporting Procedures		

Site-Specific Training

Topic	Date Completed	QSP Trainer
<input type="checkbox"/> Visual Inspections		
<input type="checkbox"/> Sample Collection Procedures		
<input type="checkbox"/> Sample Reporting Procedures		
<input type="checkbox"/> BMP Implementation		

As needed, attach proof of external training, e.g., course completion certificates, credentials for the QSP Delegate.

Appendix J Responsible Parties

Identification of QSP and QSP Delegates

Project Name: LAWA ATMP – Roadway Improvements

WDID #:

The following are QSPs and QSP Delegates associated with this project.

Name of Personnel ⁽¹⁾	QSP Number, or state “Delegate”	Company	Date

(1) If additional QSPs or QSP Delegates are required on the job site add additional lines

Appendix K Contractors and Subcontractors

Contractor Name:	Skanska-Flatiron Joint Venture
Title	
Contractor Company	
Address	
Phone Number	
Phone Number (24/7)	

Sub-Contractor Name:	Kroner Environmental Services
Title	
Sub-Contractor Company	Kroner Environmental Services Inc.
Address	10801 National Blvd #415, Los Angeles, CA 90064
Phone Number	310.474.1500
Phone Number (24/7)	

Subcontractor SWPPP Notification Letter
LAWA Airfield and Terminal Mobilization Program
Roadway Improvements

Company

Address

City, State, ZIP

Dear Sir/Madam,

Please be advised that the California State Water Resources Control Board has adopted the General Permit (General Permit) for Storm Water Discharges Associated with Construction Activity (CAS000002). The goal of this permit is to prevent the discharge of pollutants associated with construction activity from entering the stormdrain system, ground and surface waters.

Los Angeles World Airports (LAWA) has submitted Permit Registration Documents including a Stormwater Pollution Prevention Plan (SWPPP) to implement the requirements of the General Permit.

As a subcontractor, you are required to comply with the SWPPP and the General Permit for any work that you perform onsite. Any person or group who violates any condition of the General Permit may be subject to substantial penalties in accordance with state and federal law. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP and the General Permit. A copy of the General Permit and the SWPPP are available for your review at the construction office. Please contact me if you have further questions.

Sincerely,

Skanska-Flatiron, Joint Venture

Subcontractor SWPPP Notification Log
LAWA Airfield and Terminal Mobilization Program
Roadway Improvements

SUBCONTRACTOR COMPANY NAME	CONTACT NAME	ADDRESS	PHONE NUMBER	FIELD PHONE	DATE NOTIFICATION LETTER SENT	TYPE OF WORK

USE ADDITIONAL PAGES AS NECESSARY

Appendix L Weather Reports

The discharger must obtain the precipitation forecast information from the National Weather Service Forecast Office (<http://forecast.weather.gov>). A printed copy with the date and time of printing should be retained in this Appendix.

Appendix M Monitoring Records

Place completed BMP Inspection Forms, photographic documentation, Effluent Sampling, Receiving Water, and Dewatering Field Logs, Monitoring Exceptions, NAL Exceedance Reports, and Receiving Water Monitoring Trigger Exceptions in this appendix, if applicable.

Appendix N Example Storm Event Monitoring Forms

Rain Gauge Log Sheet

Construction Site Name:

WDID #:

[illegible]

Risk Level 1
Visual Inspection Field Log Sheet

Date and Time of Inspection:				Report Date:	
Inspection Type:	<input type="checkbox"/> Weekly	<input type="checkbox"/> Pre Qualifying Precipitation Event (QPE)	<input type="checkbox"/> During QPE	<input type="checkbox"/> Post QPE	<input type="checkbox"/> Dewatering Discharge
Site Information					
Construction Site Name:					
Construction stage and completed activities:				Approximate area of exposed site:	
Weather and Observations					
Date Rain Predicted to Occur:			Probability of precipitation (PoP): Predicted quantity of precipitation (QPF):		
Estimate storm beginning:	Estimate storm duration:	Estimate time since last storm:	Rain gauge reading:		
(date and time)	(hours)	(days or hours)	(inches)		
Observations: If yes identify location					
Odors	Yes <input type="checkbox"/>	No <input type="checkbox"/>			
Floating material	Yes <input type="checkbox"/>	No <input type="checkbox"/>			
Suspended Material	Yes <input type="checkbox"/>	No <input type="checkbox"/>			
Sheen	Yes <input type="checkbox"/>	No <input type="checkbox"/>			
Discolorations	Yes <input type="checkbox"/>	No <input type="checkbox"/>			
Turbidity	Yes <input type="checkbox"/>	No <input type="checkbox"/>			
Site Inspections					
Outfalls or BMPs Evaluated			Deficiencies Noted		
(add additional sheets or attach detailed BMP Inspection Checklists)					
Photos Taken:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Photo Reference IDs:		
Corrective Actions Identified (note if SWPPP / REAP change is needed)					
Inspector Information					
Inspector Name:			Inspector Title:		
Signature:					Date:

**Risk Level 1
Effluent Sampling Field Log Sheets**

Construction Site Name:	Date:	Time Start:
-------------------------	-------	-------------

Sampler:

Sampling Event Type: ☐ Stormwater ☐ Non-stormwater ☐ Non-visible pollutant

Field Meter Calibration

pH Meter ID No./Desc.:	Turbidity Meter ID No./Desc.:
Calibration Date/Time:	Calibration Date/Time:

Field pH and Turbidity Measurements

Discharge Location Description	pH	Turbidity	Time

Grab Samples Collected

Discharge Location Description	Sample Type	Time

Additional Sampling Notes

Time End:

NAL Exceedance Evaluation Summary Report

Project Name	LAWA Airfield and Terminal Mobilization Program – Roadway Improvements
Project WDID	
Project Location	
Date of Exceedance	
Type of Exceedance	NAL <input type="checkbox"/> pH <input type="checkbox"/> Turbidity <input type="checkbox"/> Others (specify) _____
Measurement or Analytical Method	<input type="checkbox"/> Field meter (Sensitivity: _____) <input type="checkbox"/> Lab method (specify) _____ (Minimum Level: _____) (MDL: _____)
Calculated Daily Average	<input type="checkbox"/> pH _____ pH units <input type="checkbox"/> Turbidity _____ NTU
Rain Gauge Measurement	_____ inches
Visual Observations on Day of Exceedance	
Description of BMPs in Place at Time of Event	
Initial Assessment of Cause	
Corrective Actions Taken (deployed after exceedance)	
Additional Corrective Actions Proposed	
Report Completed By	(Print Name, Title)
Signature	

Appendix O Field Meter Instructions

Appendix Q Supplemental Information

Appendix P Active Treatment System and Passive Treatment Plans

Appendix P reserved for Active Treatment System(s) and Passive Treatment Plan(s) if necessary.

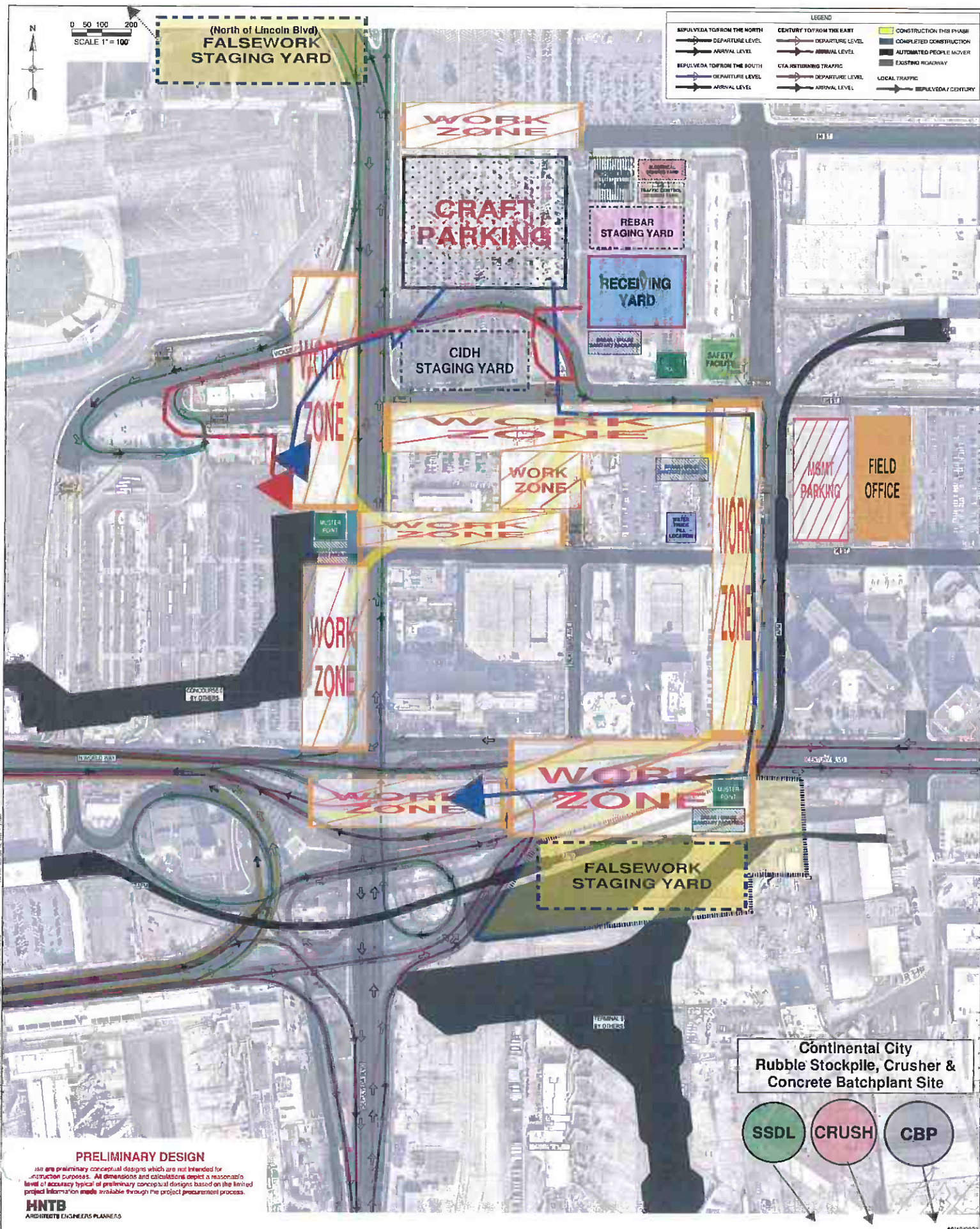
Appendix S Construction General Permit

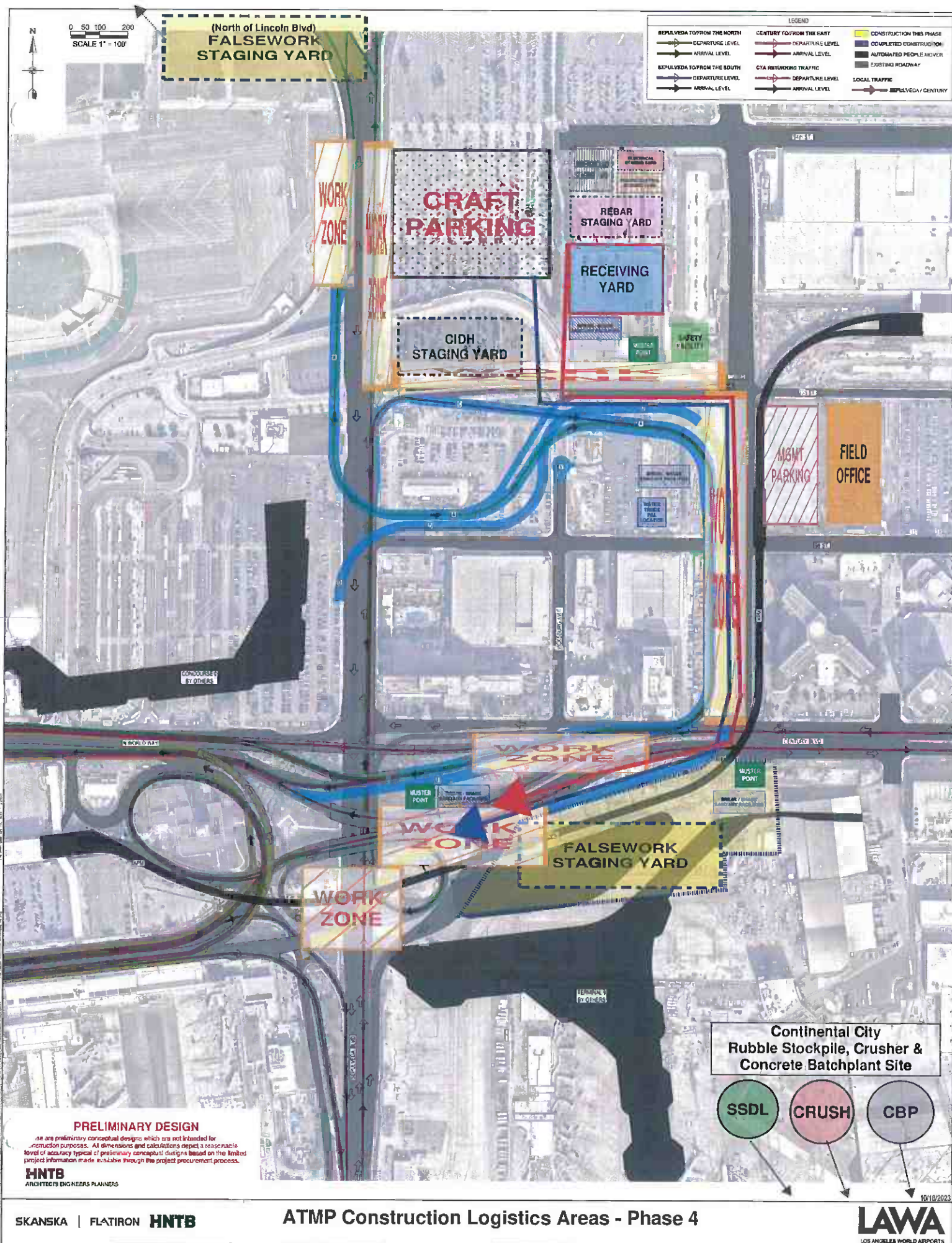
Copies of the Construction Stormwater General Permit may be downloaded from the State Water Board website at:

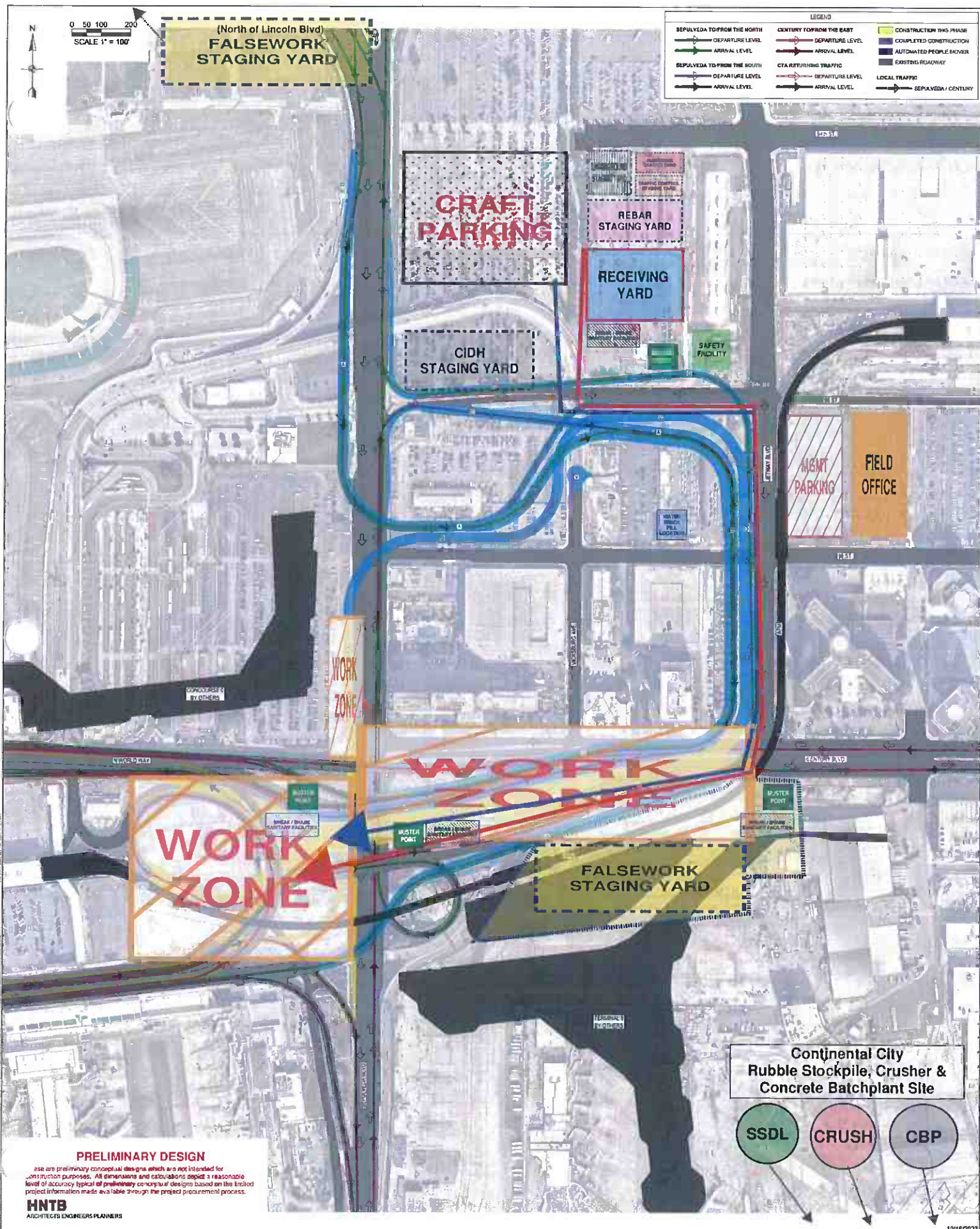
https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html.

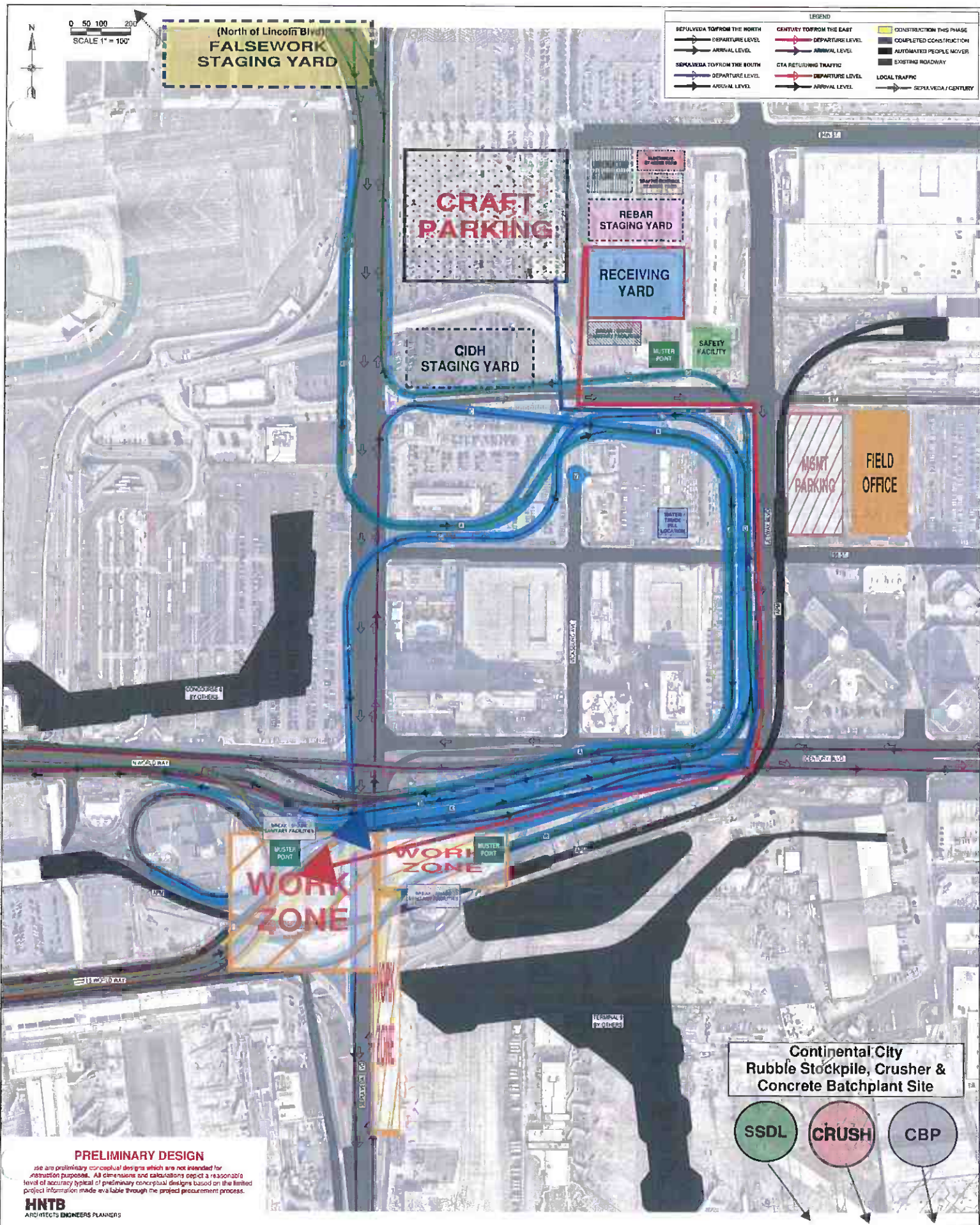
Appendix R ATMP Construction Logistics Areas











Appendix 18 – Hazardous Materials Management Plan (HMMP)

HAZARDOUS MATERIALS MANAGEMENT PLAN

Submittal Sections PR-18.15.A, and PR-19.3.A

AIRFIELD AND TERMINAL MODERNIZATION PROJECT ROADWAY IMPROVEMENTS

LOS ANGELES WORLD AIRPORT

CONTRACT DA-5609

October
2024

Contractor

SKANSKA FLATIRON

Skanska Flatiron JTV
1995 Agua Mansa Road, Riverside, California 92509

Prepared For



Los Angeles World Airports
1 World Way, Los Angeles, California 90045

Prepared By



Kroner Environmental Services
10801 National Boulevard, Suite 415, Los Angeles, CA 90064

TABLE OF CONTENTS

1. Introduction	1
1.1 Project Description	1
1.2 Purpose	1
1.3 Sources of Hazardous Materials	1
1.4 Definitions	1
1.5 Primary Personnel and Responsibilities	3
2. Contaminated and Hazardous Wastes Management.....	3
2.1 Known Areas of Contamination	3
2.2 Unknown Areas of Contamination	5
2.3 Material Classification Areas (MCAs).....	5
2.4 Storage and Housekeeping Practices	5
2.5 Material Testing and Classification	5
2.6 Petroleum Hydrocarbon Impacted Soil	6
3. Transportation and Disposal of Hazardous Waste	7
3.1 Transportation of Hazardous Waste.....	7
3.2 Disposal of Hazardous Waste	8
4. Health and Safety	9
4.1 Personal Protective Equipment.....	9
4.2 Required Training and Qualifications	10
4.3 Medical Monitoring Program	10
4.4 Spill Response	11
4.5 Emergency Response	11
4.6 Air Monitoring.....	11
5. Documentation and Recordkeeping	12
6. Reporting.....	12

TABLES

Table 1 Levels of Protection

Appendix

Appendix A Site Maps

Appendix B Contaminated Soil and Hazardous Material Management Report

1. Introduction

1.1 Project Description

The Los Angeles International Airports (LAX) is a world-class airport that serves as the primary airport for the greater Los Angeles area. The Airfield and Terminal Modernization Program (ATMP) Roadway Improvements are designed to improve traffic flow both into and out of the Central Terminal Area (CTA) by the construction and removal of select roadways and bridges. This includes alterations to Sepulveda Blvd and Century Blvd to reduce local traffic caused by airport-related congestion. In subsequent phases, the ATMP will include the construction of Concourse 0, construction of Terminal 9, and taxiway improvements on the airfield. This plan applies only to the Roadway Improvements portion of the ATMP. Construction and demolition are estimated to take roughly four or more years.

1.2 Purpose

This Hazardous Materials Management Plan (HMMP) has been prepared pursuant to Contract Sections PR-18.15.A and PR-19.3.A, federal, and state regulations. The purpose of this Plan is to provide Skanska-Flatiron management and field personnel with a document that addresses the proper classification, handling, storage, transportation, and off-site disposal of contaminated and hazardous materials during the ATMP in accordance with Contract Sections PR-18, PR-19, South Coast Air Quality District (SCAQMD) Rule 1166, and applicable federal and state regulations. This Plan is intended to be used in conjunction with a Site-Specific Health and Safety Plan.

1.3 Sources of Hazardous Materials

This HMMP addresses contaminated and hazardous soils encountered during excavation and demolition, as well as typical hazardous materials associated with demolition including asbestos, lead paint, and mercury. Contaminated soil may be encountered during general excavation that will require sampling and testing to determine the material classification. All hazardous materials transported to the project site and used (oils, solvents, paints, etc.) during construction will require approval by the Los Angeles World Airports.

1.4 Definitions

Hazardous Waste

A material is determined to be hazardous if it meets criteria listed in 22 CCR Section 66261.3 or 40 CFR 261.3. This may include excavated material, asbestos, loose and peeling lead-based paints and any other material that is regulated by and requires management, handling, transport, treatment, storage, and disposal according to the requirements of the Federal Resource Conservation Recovery Act (RCRA) and associated regulations (42 USC 6901 et seq. and 40 CFR Part 260 et seq.), or the California Hazardous Waste Control Law and associated regulations (Health and Safety Code 25000 et seq. and 22 CCR 66260 et seq.).

Material Classification Area (MCA)

A site or sites used by Skanska-Flatiron as a designated area for sampling and testing of suspect potentially contaminated material to determine whether the material must be disposed of at a hazardous waste site or whether it is acceptable for placement in the spoils disposal area.

Muck/Spoils

Unclassified excavated materials.

Soil Classifications

The following soil classifications with corresponding requirements are established for clarity on waste streams and payment for the transportation and disposal of the surplus waste excavated materials:

1. **Non-Contaminated but Impacted:** Soil with VOC readings greater than or equal to 1 but less than 50 PPM VOCs. SCAQMD does not consider this soil to be VOC contaminated. Sampling must be performed on this soil to clear it for reuse onsite or characterize it for disposal. Until the soil is cleared, it must be stored in a separate area from clean soil.
2. **Contaminated Soil with VOC readings exceeding or equal to 50 PPM.** Under SCAQMD Rule 1166, this material must be treated or disposed of within 30 days of excavation. This soil can be excavated and stockpiled, but must be stockpiled in a separate area from clean soil. This soil must be sprayed with a vapor suppressant prior to transport. Sampling must be performed on this soil to characterize it for disposal.
3. **Contaminated Soil – with VOC readings exceeding 1000 PPM.** Must be immediately sprayed with water or a vapor suppressant. Cannot be stockpiled, must be loaded directly into trucks or approved SCAQMD containers. SCAQMD must be notified within 1 hour of detection of this type of soil.
4. **RCRA Hazardous Soil** – Waste excavated material that is classified through soil characterization both as California hazardous waste and as a RCRA hazardous waste. As such, it requires disposal at a permitted disposal facility and may require stabilization prior to landfill disposal.
5. **California Class I Non-RCRA Hazardous Waste** – Waste excavated material that is classified as California Non-RCRA hazardous waste, requires disposal at a Class I disposal facility or similarly permitted out-of-state facility, and requires transport by a registered hazardous waste transporter.
6. **California Non-Hazardous Waste** – Waste that is not a California or Federal hazardous waste. It requires disposal at a Class III disposal facility or at a similarly permitted out-of-state facility without the need of a registered hazardous waste transporter.

Spoils Disposal Area

Area designated for the placement of non-contaminated spoils and demolished concrete material as indicated.

Suspect Material

Potentially contaminated excavated material suspected or observed to be contaminated because of the known occurrence of contamination in the vicinity of the excavation area, the presence of observable staining or odors, or other factors leading to a reasonable suspicion of possible contamination. For petroleum hydrocarbon contamination, odors can include hydrocarbon or strange smells and staining may be dark gray, black, or greenish.

Waste Excavated Soil

Excavated soil that is a waste and cannot be re-used within the Project per the re-use criteria of this

Specification. It is surplus, and is to be managed, transported, and disposed of as part of the Contract. Waste excavated soil does not include asphalt, concrete, vegetation, wood, debris, obstructions, and other organic, unsound, or deleterious matter.

1.5 Primary Personnel and Responsibilities

The qualified Project personnel responsible for the development and implementation of this Plan are described below.

LAWA

LAWA is the contracting agency for the Airfield and Terminal Modernization Project. They will ensure compliance with the requirements of the DA-5609 documents and oversee the construction, environmental, and engineering contractors, subcontractors, and consultants. LAWA will be the “Generator” of any hazardous waste discovered or encountered during construction operations.

Skanska-Flatiron, Joint Venture

Skanska-Flatiron, Joint Venture (SFJV) is the general contractor for the ATMP. SFJV is responsible for obtaining environmental and hazardous waste permits and submitting plans required during the construction phase. SFJV is responsible for compliance with applicable regulatory agency permits and confirm proper sampling, classification, handling, and disposal procedures for contaminated and hazardous materials management.

Kroner Environmental Services (KES)

KES is an environmental services provider and general engineering contractor licensed to handle hazardous substances. KES will provide construction site environmental support with oversight and management of contaminated and hazardous wastes generated during the Project. KES will be responsible for preparing environmental plans within their scope of work that are required under LAWA contract specifications.

Hazardous Materials Manager (HMM)

SFJV will appoint a Hazardous Materials Manager. The appointee will be qualified to identify hazardous and regulated materials, initiate responses, and contingency plans, provide notifications to LAWA and the proper regulatory agencies during a response, and train onsite personnel. The contact information for the Hazardous Materials Manager is:

Name: TBD
Email: TBD
Phone Number: TBD

2. Contaminated and Hazardous Wastes Management

As stated in Section 1.3, this HMMP addresses contaminated and hazardous soils expected to be encountered during excavation and demolition. These wastes will require proper management, handling, storage, transportation, and disposal in accordance with federal, state, and local laws and regulations.

2.1 Known Areas of Contamination

The five areas with known historic and current areas of contamination that are shown in Figure 1. Information below was taken from the three following documents: *LAX Environmental Site Review Close-*

Out Memorandum (LAWA 2019), Draft Environmental Impact Report (LAWA 2020), and the Final Environmental Assessment and General Conformity Assessment (R&A 2021)

Allied Signal-Honeywell Site / Concourse 0

Currently, the area planned for development into Concourse 0 stands as part of LAX's pickup area for services such as Uber and Lyft on the northwest corner of World Way and Sepulveda Blvd. Previously this location was used by Allied Signal Aerospace Company and Honeywell International Company. Previous, known contamination includes hydrocarbons, chlorinated hydrocarbons, 1,4 dioxane, halogenated volatile organic compounds (HVOCs), and related compounds. Thirteen Underground Storage Tanks (USTs) that were in use during previous land uses have all been removed. A soil vapor extraction system was installed to remove volatile organic compounds (VOCs) and approximately 400,000 pounds of VOCs were removed as of 2018 (R&A 2021). Cleanup operations intermittently continue in the northwest quadrant of the site. (R&A 2021). Additional studies, groundwater remediation, and site assessments are being coordinated and overseen by the Regional Water Quality Control Board (RWQCB). The cleanup status remains open and the RWQCB is overseeing site assessment activities. Groundwater contamination is known to exist beneath and to the east of the site and it is being monitored with monitoring wells (R&A 2021).

Terminal 1 Fuel Valve Vault

Located at 250 World Way West on the airfield, this location has soil and groundwater contaminated with jet-fuel and related compounds. On March 8, 2015 fuel spilled onto and through the soil into the groundwater approximately 100 feet below the ground surface. Free-product removal is ongoing. Contaminants include petroleum hydrocarbons, 1,4-Dioxane, and VOCs. Planned improvement at this location are additions to the taxiway. Remediation was ongoing as of December 2021 (R&A 2021).

United Airlines Maintenance Operations Center

Located above the east side of Taxiway C, this operations center was previously home to USTs and jet-fuel hydrant systems. Contaminants associated with the site are hydrocarbons, VOCs, and Stoddard solvents. Remediation is ongoing. A product recovery system removed over 6,000 gallons of liquid impacted with product. Remediation was completed on much of the site except a small area 600 feet east of the Terminal 9 site as of December 2021 (R&A 2021).

Continental Airlines Crash Site (1978)

This site is at the eastern end of the northern airfield and soil contaminants include low concentrations of PFAS. This location is listed in the Final Environmental Assessment as a hazardous materials site, however, PFAS is currently not a listed hazardous waste. As the project sequence advances, all suspect contaminated / hazardous materials - including PFAS will be managed in accordance with the most current federal or state rules and regulations, as applicable.

Delta Hangar

Located at 6040 Avion Drive, this previous Delta Maintenance Hangar was home to Above-ground Storage Tanks (ASTs), USTs, diesel, oil, oily water, two 5,600 gallon fire suppressant tanks, hydraulic lifts, trench drains, and two clarifiers. From 1988 to 1999 Delta conducted investigations and removal activities. After the cleanup activities, both the Los Angeles Fire Department and the Regional Water Quality Control Board requested "no further action," (LAWA 2019). At the time of writing the 2019 document, the LAWA

Environmental Programs Group still had an unresolved recommendation: sampling the soil beneath the cracked concrete floor of the machine room to test for metals. Two notable environmental matters that LAWA stated did not warrant further action on behalf of Delta Airlines included outdoor hydrocarbon staining on pavement that could only be partially removed and staining on the inside of the bottom of three hydraulic lifts could not be verified due to insufficient lighting (LAWA 2019).

2.2 Unknown Areas of Contamination

If any suspicious discoveries during excavation of unexpected or unexplainable contamination that pose a safety or regulatory risk are identified, such as stains or smells or waste piles, LAWA will be immediately notified. Work in the discovery area will cease until further characterization is completed and site access will be restricted.

For demolition, if a structure is suspected to contain a hazardous building material, building surveys will be conducted to identify potential sources of asbestos, mercury, PCBs, and lead based paint. If a building was painted prior to 1978, it is suspect for lead paint. If a building has transformers or trash compactors that date back to 1979, it is suspect for PCBs.

2.3 Material Classification Areas (MCAs)

It is anticipated that excavated or disturbed soil may potentially be contaminated or hazardous. Therefore, material classification areas (MCAs) will be established for the segregation, sampling, and testing of suspect materials to determine if the material needs special handling and if it needs to be disposed of at a contaminated or hazardous waste disposal facility. Trained personnel, such as the HMM, will identify, transfer, handle, segregate, and store the suspect contaminated or hazardous material within the MCAs to prevent cross-contamination while the material classification is determined. These personnel will keep documentation of material transfers and the results of soil screenings. Segregation, sampling, and testing will only be required for soils suspected of being potentially contaminated/hazardous. Segregated stockpiles with impacted or contaminated soil will need to be properly labeled to prevent accidental mixing. Stockpile locations will need to be approved by LAWA prior to their use. Excavated soils classified as California Class III Non-Hazardous at the MCAs will be transported and stockpiled in the spoils disposal areas. These areas are the designated on-site locations for the placement of non-contaminated soil and demolished concrete material.

2.4 Storage and Housekeeping Practices

Contaminated and hazardous wastes will be stored in a separate storage area than non-contaminated or non-hazardous wastes. Hazardous waste will be stored in accordance with local, state, and federal regulations. Storage area locations will be submitted to LAWA for approval prior to use. The storage areas will also be selected with respect to the Stormwater Pollution Prevention Plan (SWPPP). Soil stockpiles will be covered to prevent stormwater contact and movement from wind. Storage areas will be clearly labeled and defined with markers such as cones, flagging, and signage to prevent accidental mixing. Movement of materials into, out of, and within the storage areas will be documented by the HMM or trained personnel.

2.5 Material Testing and Classification

The definitions and corresponding requirements for RCRA Hazardous Soil, California Class I Non-RCRA Hazardous Waste, and Non-Hazardous Waste are provided in Section 1.4. To ensure proper handling and

disposal, suspect excavated material from any of the known areas of contamination or discovered areas of contamination will be segregated, sampled, tested, and classified within the designated MCA. Testing will be performed by a Certified Testing Laboratory to classify suspect materials in accordance with the respective landfill or disposal facility requirements. This project will use Positive Lab Services (Environmental Laboratory Accreditation Program #1131), which is located at 781 E Washington Blvd, Los Angeles, CA 90021.

The sampling frequency and protocol will be based on the (1) contract specifications, (2) acceptance criteria of the receiving landfill or waste disposal facility, (3) regulatory requirements, and (4) volume of excavated material generated. No other area or site will require testing unless otherwise required by applicable permits and regulations or identified as containing suspect materials.

The minimum testing needed to clear suspect materials for placement within the on-site spoils disposal areas will include:

1. Title 22 Metals in accordance with EPA Method 6010B and EPA Method 7471A for Mercury.
2. Total Petroleum Hydrocarbons (TPH) as diesel (TPH-d) and motor oil (TPH-mo) in accordance with EPA Method 8015B
3. VOCs in accordance with EPA Method 8260B

If the laboratory analytical results reveal that (1) the concentrations of metals, TPH, and other substances deemed as hazardous waste do not exceed screening levels for RCRA's TTLC or California's STLC and (2) the VOC readings from the soil do not subject the soil special handling required by SCAQMD (less than 1 PPM VOCs) then the suspect materials are permitted to be stockpiled in the designated spoils disposal area. If the material is deemed hazardous, then notifications will be made to LAWA and the appropriate regulatory agencies and the material will be sent to an appropriate landfill.

For building demolition, if a building is suspected of containing asbestos, lead based paint, mercury, PCBs or any hazardous building material, it will be considered a MCA until either the results of the building survey indicate there are no hazardous building materials or the materials identified as hazardous by the building survey have been properly removed and abated from the building in accordance with applicable local, state and federal regulations.

2.6 Petroleum Hydrocarbon Impacted Soil

The identification and screening process to determine if soil needs special handling as required by SCAQMD will involve a photoionization detector (PID) and waste profile sampling. For proper SCAQMD Rule 1166 screening using a PID, a reading will be taken by trained personnel at a distance of 3 inches from suspect excavated soil within 3 minutes of the soil being excavated. PID readings will be conducted if the excavation personnel observe any signs of contamination including staining and strange smells or if excavation is performed within an area suspected to contain hazardous waste.

- If the PID reading is less than 1 PPM VOCs, the soil will be treated as not impacted, not contaminated, and not hazardous.
- If the PID reading is greater than 1 PPM but less than 50 PPM VOCs, it will be treated as impacted, but not contaminated. Waste profile sampling must be conducted to determine if the waste is hazardous prior to disposal, suitable for reuse onsite, or viable to be added to the clean soil pile. Prior to waste profile sampling, the soil can be transported to a stockpile, but it must be stockpiled

in a LAWA approved area separated from clean soil.

- If the PID reading is 50 PPM VOCs or greater, the waste soil is considered contaminated by SCAQMD. Waste profile sampling must be conducted to determine if the waste is hazardous prior to disposal. This waste must be treated or disposed of within 30 days of excavation. Water or an approved vapor suppressant must be sprayed on the waste prior to transport. The waste cannot be stored in the same stockpile as non-contaminated soil and must be stored in its own area. The waste soil cannot be excavated without a site specific SCAQMD 1166 permit. KES holds and maintains a SCAQMD various locations permit that allows for the excavation of up to 1500 cubic yards.
- If the PID reading is 1000 PPM VOCs or greater, the waste is still considered impacted and contaminated, but more restrictions apply. SCAQMD must be notified within 1 hour of the PID reading. The excavation work area must be sprayed with water or an approved vapor suppressant. The waste soil cannot be excavated without a site specific SCAQMD 1166 permit. Waste profile sampling must be conducted to determine if the waste is hazardous prior to excavating it for disposal. The soil can only be removed from the ground directly into a truck and sprayed with a vapor suppressant or put into a SCAQMD approved, vapor tight container to be disposed of within 30 days.

3. Transportation and Disposal of Hazardous Waste

3.1 Transportation of Hazardous Waste

Materials classified as either RCRA Hazardous Soil or California Class I Non-RCRA Hazardous Waste will be transported separately from Non-Hazardous Waste to prevent mixing. Hazardous materials will be hauled off the site by a licensed hazardous waste hauler under a Uniform Hazardous Waste Manifest to an approved disposal facility in accordance with all applicable regulations, including but not limited to, 40 CFR Part 263, 22 CCR Section 66263, and DOT-HM 181 as per 49 CFR 172. The hauler(s) must also adhere to other applicable federal, state, and local laws, codes, and ordinances that govern the transportation of hazardous wastes.

At a minimum, the licensed hazardous waste hauler must have the following items during transportation:

1. Valid driver's license, vehicle registration, and insurance meeting regulatory requirements;
2. Licensing in compliance with all applicable California State and Local vehicle regulations;
3. Current Class I Certificate of Compliance from the California Highway Patrol;
4. Hazardous Substance Removal Certification granted by the State of California, Contractor's State License Board

LAWA will be the "Generator" of any excavated materials determined to be either RCRA Hazardous Soil or California Class I Non-RCRA Hazardous Waste. A LAWA representative will provide the hazardous waste generator identification number. Weights will be acquired when the hauler reaches the landfill. The licensed hazardous waste hauler will sign and date the manifests indicating that the identified load has been accepted on that date. A LAWA representative will sign the manifest on behalf of the "Generator."

All manifests will be processed in accordance with US EPA, California Department of Toxic Substances

Control (DTSC), and California state regulations. Uniform Hazardous Waste Manifests, Bills of Lading, Waste Profiles, and Landfill Agreements will be prepared and provided by SFJV and approved by the designated landfill in advance.

3.2 Disposal of Hazardous Waste

Conditions of acceptance at landfills and waste disposal facilities include: (1) providing a waste profile, (2) obtaining a landfill service agreement and account, and (3) visually confirming that the hazardous waste shipment has greater than 50 percent solids and no free liquids. Waste profiles must be submitted to LAWA for review and approval, which typically take 7 days.

The completed Uniform Hazardous Waste Manifest must be signed by the recipient of the waste shipment to confirm that the shipment was received at the landfill or waste disposal facility. At a minimum, all landfills and waste disposal facilities will be permitted under RCRA and state and local requirements.

Hazardous and Contaminated Waste Disposal Facilities:

Republic Services Beatty Facility – (VOC contaminated and Hazardous soil)

- Operated by Republic Services
- 11455 S US-95, Beatty, NV 89003
- Phone # 800.239.3943

Kettleman Hills Facility

- Operated by Waste Management
- 35251 Old Skyline Rd, Kettleman City, CA 93239
- Phone # 866.909.4458

Buttonwillow Landfill Facility

- Operated by Clean Harbors
- 2500 West Lokern Rd, Buttonwillow, CA 93206
- Phone # 661.762.6200

Petroleum Contaminated – Non-Hazardous Soil Disposal Facilities:

As stated in PR-19, soil considered by SCAQMD Rule 1166 to be VOC contaminated (over 50 PPM VOCs) that has been characterized as non-hazardous will be disposed of by recycling or as directed by LAWA.

Soil Safe of California

- Operated by Soil Safe
- 12328 Hibiscus Rd, Adelanto, CA 92301
- Phone # 760.246.8001

Simi Valley Landfill

- Operated by Waste Management
- 2801 Madera Rd, Simi Valley, CA 93065
- Phone # 805.579.7267

Non-Hazardous, Non Contaminated, but Impacted Soil Disposal Facilities:

This category is for soil that reads equal to or greater than 1 to 50 PPM VOCs. This soil meets the criteria for non contaminated, but impacted. that have been characterized as non-hazardous will be disposed of by recycling or as directed by LAWA.

Chiquita Canyon Landfill

- Operated by Chiquita Canyon
- 29201 Henry Mayo Dr, Castiac, CA 81384
- Phone # 661.257.3655

4. Health and Safety

4.1 Personal Protective Equipment

The Personal Protective Equipment (PPE) listed below will be required for construction activities involving contaminated or hazardous materials. More information will be available in the Site Specific Health and Safety Plan.

Table 1 - Levels of Protection

Level D	Initial Protection Level: Gloves, hard hat, steel-toed boots, eye protection (as needed), hearing protection (as needed). 1. Modified Level D protection for potential skin exposure includes an uncoated or coated Tyvek suit.
Level C	Level C includes the aforementioned PPE for Level D plus the following: 1. Protective coveralls (uncoated or coated Tyvek suit or equivalent); 2. Full face air purifying respirators equipped with organic vapor and acid gas HEPA cartridges, or other site specific filter cartridge specific to each area.

Level D PPE

Level D protection is the minimum level of respiratory and skin protection required by all onsite personnel and will be utilized for nuisance contamination only.

Level D protection includes:

- ANSI-approved hard hat;
- ANSI-approved safety glasses with side shields;
- ANSI-approved safety-toed boots (chemical resistant);
- Hearing protection (if working near a noise source);
- Gloves (if necessitated by direct contact);
- Safety vest (highlighted) and appropriate field attire (pants, long-sleeved shirts, etc.); and
- Chemical-resistant gloves (if there is potential for skin exposure).

Modified Level D PPE

Modified Level D protection includes all of the bullet points listed in Level D, with the addition of Tyvek and boot covers. If respiratory protection is needed, Level C PPE will be required.

Level C PPE

On-site personnel will upgrade to Level C PPE if an airborne substance is identified, its concentration measured, the criteria for using the air-purifying respirators met, and skin and eye exposure is unlikely. Periodic air monitoring must also be performed.

Level C protection includes:

- NIOSH-approved full-face or half-mask (with safety glasses), air purifying respirator;
- Chemical-resistant clothing (coveralls, hooded chemical splash suit, hood and apron, etc.); and
- Chemical-resistant inner and outer gloves; and
- Disposable chemical-resistant outer boot covers.

In addition to:

- ANSI-approved hard hat;
- ANSI-approved safety glasses with side shields;
- ANSI-approved steel-toed boots (chemical resistant);
- Ear plugs (if working near a noise source); and
- Safety vest (highlighted) and appropriate field attire (pants, etc.).

4.2 Required Training and Qualifications

Personnel working in areas with suspect material, contaminated material or hazardous material may be exposed to contaminated and/or hazardous disturbed soil. For any work subject to training requirements specified in 29CFR1910.120 and Title 8 CCR Section 5192(e), workers will be provided with current 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Certification Training certifications will be provided via safety reporting and will not be managed under the HMMP.

4.3 Medical Monitoring Program

If required, qualified personnel involved in hazardous material-related work will be enrolled in personal and medical monitoring programs.

4.4 Spill Response

Accidental spills, leaks, and releases may occur when chemicals or hazardous materials are brought or used on-site. In the event of a spill, leak, or release, SFJV will be responsible for immediately notifying LAWA and the City Representative and initiating spill response and implementing emergency procedures.

The qualified emergency response personnel will review the Safety Data Sheets (SDS) in conjunction with the Site Safety Manager or equivalent designated individual to identify the chemical, biological, and physical hazards to determine the appropriate precautionary measures. The emergency response team will immediately eliminate the source to prevent further spread and contain the spill by using absorbent materials, patching, plugging, and/or diking. Fully stocked spill kits will be maintained at each project site for immediate deployment.

SFJV will also provide surface cleanup of spillage and proper disposal of contaminated and hazardous materials within the site boundaries and in the event of a hazardous waste discharge or spill during transportation to the designated disposal facility in accordance with the spill prevention and control measures included in the SWPPP.

4.5 Emergency Response

In the event of a fire, spill, natural disaster, or other emergency impacting the site, all affected personnel must immediately evacuate the work area, reassemble, and report to the Site Safety Manager or equivalent designated individual at a safe support zone where all personnel will be accounted for. The alarm message may be transmitted through radios and/or by voice and hand gestures. In the case of injury, personnel should take precautions to protect the victim from further harm and notify local or facility emergency services. The victim may require decontamination prior to treatment; requirements will vary based on the site conditions and activities performed before the injury. CalOSHA must be notified immediately in the event of a serious injury, death, or other emergency.

4.6 Air Monitoring

If airborne concentrations of contaminants are expected to exceed a CalOSHA PEL, air monitoring will be performed to determine the airborne concentration of contaminants. This measured concentration will also dictate the proper level of protection for on-site personnel. Only trained field personnel under the direction of the Site Safety Manager or equivalent designated individual will conduct area and personal air monitoring with direct reading instruments and sampling pumps. Sorbent tubes and filters will be analyzed by an American Industrial Hygiene Association (AIHA)-accredited laboratory using current National Institute of Occupational Safety and Health (NIOSH) and OSHA standard methods.

Personal Air Monitoring

Personal air monitoring will be performed to determine the actual exposure of specific chemicals to field personnel. A personal sampling pump will be connected to a sample collection media (sorbent tube, filter cassette, etc.) for vapor or particulates using Tygon tubing. The air monitoring apparatus will then be attached to the worker within their breathing zone.

Area Air Monitoring

Area air monitoring will be performed to assess the concentration of airborne contaminants in a given area. Direct reading instruments will be employed initially. Sampling pumps may also be positioned in various locations within the area suspected of contamination if deemed necessary.

Downwind and Fence Line Air Monitoring

In addition to personal and area air monitoring, downwind and fence line air monitoring may also be performed if the site conditions are evaluated and it is determined that Level C PPE is required. This air monitoring will be performed to ensure that any mitigation measures implemented are functioning properly and are sufficient in preventing fugitive emissions of airborne contaminants from extending beyond the site boundaries.

5. Documentation and Recordkeeping

The following records and documentation will be made available to LAWA, the EPA, the DTSC, and the City of Los Angeles.

Air Monitoring

Any air monitoring and sampling data, including calibration data, sampling equipment, and laboratory analysis results will be maintained by the Site Safety Manager or equivalent designated individual. Sampling and monitoring records will include information such as the sample ID number, date and location of sampling, and site activities.

Hazardous Materials Training

Proof of valid training records and certifications pertaining to hazardous materials such as the 40-Hour HAZWOPER Certification, 8-Hour HAZWOPER Annual Refresher Certification, respirator clearance, and fit-testing records must be maintained by the Site Safety Manager or equivalent designated individual. Training certifications will be provided via safety reporting and will not be managed under the HMMP.

Spill Control and Response

Maintain written and photograph records in addition to cleanup documentation of spills, leaks, and releases.

Hazardous Waste Transportation and Disposal

Uniform Hazardous Waste Manifests, Bills of Lading, Waste Profiles, and Landfill Agreements will be prepared and provided by SFJV and approved by the designated landfill in advance. Notifications and all applicable permits required for handling hazardous wastes must be maintained. Laboratory analytical results, records of waste disposal or treatment, and certified disposal facility/landfill permits and licenses will be retained by SFJV.

6. Reporting

Contaminated Soil and Hazardous Material Management Report

Required by contract specification PR-19, this document will be kept in Appendix B, and shall detail the characterization and disposition of all contaminated soil and hazardous materials removed from the site. The report must include the soil management approach, sampling and analyses, soil disposition for the several "phase" areas of earthwork, and confirmation sampling.

REFERENCES

Los Angeles World Airports (LAWA 2020), Draft Environmental Impact Report, October 2020, Airfield and Terminal Modernization Project. Document available at link below.

<https://www.lawa.org/atmp/documents>

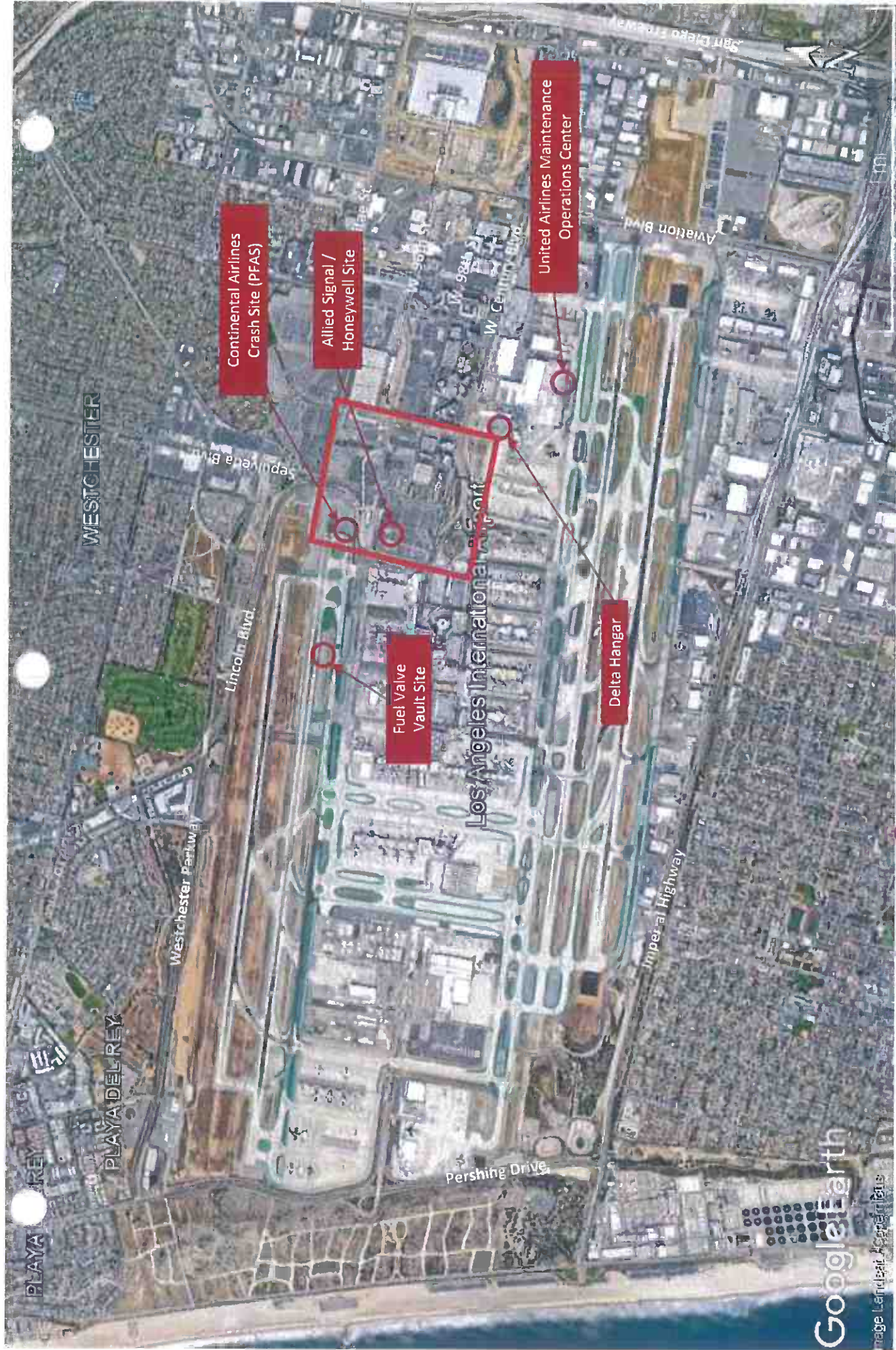
[\(LAWA 2019\)](#), *LAX Environmental Site Review Close-Out Memorandum*, Delta Airlines Hangar Lease Close-Out. 6040 Avion Drive, Los Angeles, CA 90045

Ricondo and Associates and CDM (R&A 2021), Final Environmental Assessment and Final General Conformity Determination, December 2021. Airfield and Terminal Modernization Project. Document available at link below.

<https://www.lawa.org/atmp/documents>

APPENDIX A

SITE MAPS



Revision 7/25/2024

Project Area Boundary

Approximate Site Location

Hazardous Materials Management Plan
LAWA Airfield and Terminal Modernization Program
Project General Vicinity Map



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APPENDIX B
Contaminated Soil and Hazardous Material
Management Report

Appendix 19 – Environmental Monitoring and Control Plan (PR-18)

PROJECT ENVIRONMENTAL MONITORING AND CONTROL PLAN

AIRFIELD AND TERMINAL MODERNIZATION PROJECT ROADWAY IMPROVEMENTS

LOS ANGELES WORLD AIRPORTS

CONTRACT DA-5609

November
2024

Contractor

SKANSKA FLATIRON

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TABLE OF CONTENTS

1. General	1
2. Requirements	1
3. Traffic	2
4. Stockpiles	2
5. Air Pollution Control	2
6. Air Quality.....	3
7. Noise Control	4
8. Sewage Spill Prevention and Emergency Response Plan	5
9. Water Pollution Control	5
10. Best Management Practices.....	6
11. Dewatering	6
12. Drainage Control	6
13. Recycling and Solid Resources Management.....	7
14. Tribal, Archaeological, and Paleontological Resources	7
15. Hazardous and/or Regulated Materials	7
16. Environmental Monitoring and Control – Compliance Reporting.....	8

1. General

Skanska-Flatiron Joint Venture (SFJV) will extend partner company commitments to be a pioneering force of the green construction and development community. SFJV will partner with organizations seeking to transform the industry, and we will be active participants in researching and deploying sustainable construction practices on the ATMP Roadways Project.

This section will address SFJV's approach to environmental mitigation requirements for the project that include traffic, air quality, noise, water quality, recycling, waste disposal, material stockpiles, hazardous materials, and potential to encounter paleontological/archaeological resources.

This SFJV Project Environmental Monitoring and Control Plan (EMCP) is the framework for our project management team. This plan is a living document and, as such, will be maintained and updated throughout the duration of the Contract. This plan will be revised for subsequent task orders and construction phases as required under PR-01. We will provide continuous improvement and training to our team. SFJV Managers will be required to read, understand, implement and comply with this EMCP.

During the initial preconstruction phase, the primary contact from SFJV to ensure implementation of mitigation measures shall be Construction Manager Rick Finken. During the Construction phase, SFJV proposes that the primary contact from SFJV to ensure implementation of mitigation measures shall be Kurt Kroner, of Kroner Environmental Services, a DBE subcontractor from the SFJV team. This is contingent upon LAWA's approval of Kroner Environmental Services's scope and price in the Construction cGMP(s).

2. Requirements

SFJV will make available resources necessary to fulfill the environmental requirements of the Contract identified in PR-18 of the Airfield and Terminal Modernization Program. SFJV will also make resources available to comply with other requirements referenced under the Contract including, the ATMP Environmental Impact Report (EIR), ATM MMRP, the National Environmental Policy Act (NEPA), the Project Environmental Assessment (EA), Los Angeles Green Building Code "Tier 1" certification requirements, California Environmental Quality Act (CEQA) and the City of Los Angeles Low Impact Development Ordinance.

Pursuant to comment review clarification (James Owen, 8/15/2023) the 2004 LAX Master Plan MMRP requirement referenced in Section 1.C of the PR-18 is only applicable to Master Plan projects which the ATMP is not considered a part of. Additionally, both Exhibit 'B' and GC-76 reference the LAX Master Plan Final EIR, but not necessarily it's MMRP, as part of the definition for "Project Impact Area". Further pursuant to this clarification, removing the reference to the LAX Master Plan MMRP in the EMCP would not preclude or change the contractual requirements for the First Source Hiring Program.

3. Traffic

The objective of the Traffic Management Plan (TMP) will be to facilitate vehicular access to the CTA and movement on local streets at a level of service comparable to that in-place prior to construction. The TMP will be prepared using the selected basis of design (BOD) alternative and is included in Appendix 2. The TMP will comply with Contract requirements as well as applicable local, state, and Federal traffic safety standards, and will be subject to approval from local authorities having jurisdiction (AHJ's). The TMP will be incorporated here prior to initiation of construction.

SFJV will consider the maintenance of public traffic, construction haul routes, delivery hours, staging areas, and contractor employee parking in the TMP and site logistics plan.

4. Stockpiles

Stockpiling of materials such as excavated earth, demolition debris, aggregates, rock products, and drainage materials is anticipated. The environmental benefit of using on-site material stockpiles is to reduce the consumption of energy and carbon emissions that would be expended if materials were to be transported on/off site. Preliminary locations and types of stockpiles are identified in Appendix 3 – Construction Area Access, Phasing, and Logistics Plan. Stockpiles will be planned and managed to comply with environmental requirements to reduce or eliminate air and storm water pollution and to eliminate/avoid risk to LAWA operations. Stockpiles of rock and earth materials that are not actively being used shall be protected with a dust control product such as: water spray (reclaimed water shall be used for dust control), proprietary non-toxic crusting agents, anchored geotextile fabric or tarps, erosion control fabric, seeding, or other methods approved by LAWA. Bituminous prime coat products for dust control are not acceptable. All stockpile locations will be pre-approved by LAWA, allowing access by construction vehicles with minimal disruption to residences.

5. Air Pollution Control

SFJV will limit the potential discharge of smoke, dust, equipment exhaust or any other air contaminants as required by Federal, state and local regulations. SFJV will employ the best construction industry practices of onsite dust suppression, and street sweeping to abate dust, in accordance with South Coast Air Quality Management District (SCAQMD) Rule 403: Fugitive Dust. Fugitive dust is any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person. PM₁₀ refers to particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods. According to SCAQMD Rule 403, Particulate matter shall not exceed 50 µg/m³ when determined as the difference between upwind and downwind samples collected on high volume particulate matter samplers or other EPA approved equivalent method for PM-10 monitoring at the property line for a five-hour period during the time of active operations.

Construction activities which may result in fugitive dust emissions include demolitions, soil excavation and hauling, land clearing, saw-cutting paved areas, and vehicle traffic on unpaved surfaces. This includes the stabilization of site ingress/egress per PR-18 specifications, continuously monitoring stockpiles, and

covering bins at the end of work shifts. The application of onsite dust suppression water will conform to the water pollution control requirements contained in this contract, as well as the project Stormwater Pollution Prevention Plan (SWPPP). Publicly visible signs will be posted outside of the construction site with the telephone number and person to contact regarding dust complaints; this person will then be required to respond and take corrective action within twenty-four hours.

The required minimum of three (3) CNG-fueled street sweepers and 90% renewable diesel fuel demand requirement for on-site, on-road, and off-road construction equipment will be included in a subsequent task order/GMP proposal.

6. Air Quality

Equipment used for construction by SFJV and its subcontractors will comply with Contract requirements and applicable Federal, State, and local air quality requirements. All off-road diesel-powered construction equipment greater than fifty (50) horsepower will meet, at a minimum, USEPA Tier 4 (final) off-road emissions standards. However, documentation of any approved exceptions will be provided to LAWA prior to use of any equipment not meeting the off-road equipment emissions requirements for construction equipment greater than 50 horsepower. Circumstances that may warrant exceptions include equipment currently unavailable in the inventory but has intent to meet applicable requirements when available, funding awarded by SCAQMD or another agency that would provide some or all of the cost to retrofit, repower, or purchase a piece of equipment or vehicle, but the funding has not yet been provided due to circumstances beyond control, diesel equipment/vehicle will be used on-site for fewer than twenty days.

All diesel-fueled equipment used for construction will be outfitted with the best available emission control devices, where technologically feasible, primarily to reduce emissions of diesel particulate matter, including fine PM_{2.5}, and secondarily, to reduce emissions of nitrogen oxides (NOx). This requirement will apply to diesel-fueled off-road equipment (such as construction machinery), diesel-fueled on-road vehicles (such as trucks), and stationary diesel-fueled engines (such as electric generators). It is unlikely that this measure will apply to equipment with Tier 4 engines, as these engines typically already incorporate the best available emission control devices. The emission control devices utilized in construction equipment shall be verified or certified by the California Air Resources Board (CARB) or US Environmental Protection Agency (USEPA) for use in on-road or off-road vehicles or engines. For vehicles and/or equipment outfitted with CARB approved best available control technology (BACT) devices, the BACT device shall be approved by CARB, specifications can be found on their website. A copy of each unit's certified BACT documentation, and each unit's CARB or SCAQMD operating permit, will be provided at the time of mobilization of each applicable unit of equipment. This requirement applies to diesel equipment owned and/or operated by SFJV and their subcontractors (including all sub-tiers). For multi-year construction projects, a reassessment of equipment availability, equipment fleet mixtures, and best available emission control devices will be conducted annually for equipment newly brought to the site each year. SFJV (and lower tier subcontractors) will comply with the 90% renewable diesel fuel demand requirement for off-road equipment and on-site, on-road trucks. On-road medium-duty and larger diesel-powered trucks used on LAX construction projects with a gross vehicle weight rating (GVWR) of at least 14,001 pounds shall, at a minimum, comply with USEPA 2010 on-road emissions standards for PM₁₀ and NOx. For NOx it is 0.2 grams per brake horsepower-hour (g/bhp-hr) or less, for PM it is 0.01 g/bhp-hr or less.

If SFJV and LAWA determine that locating a rock crusher and concrete batch plant facility on-site is best for the Project then SFJV will utilize such on-site batch plants. The decision to use on-site crushing facility depends largely on the quantities of demolished rubble material generated during removals and/or available from other nearby interfacing projects. Scheduling will also be factor in determining if demolition and removal will support processing of rubble in time for when recycled aggregates are needed. Additionally, on-site facilities will mitigate truck haul trips and thus reduce emissions. The design, installation, and operation of crushing plants and batch plants, if used, will comply with the Construction and Operation Compliance Manual dated May 12, 2015 and all applicable requirements of the SCAQMD Title V Permit for LAX.

Efforts to mitigate air pollution (to the extent feasible) include having construction employees commute during off-peak hours, suspending use of all construction equipment during second-stage smog alert in the immediate vicinity of LAWA, prohibiting tempering with construction equipment to increase horsepower/defeat emission control devices, restrict vehicle idling to no more than five minutes, utilize grid-based electric power. SFJV will create, provide, and maintain a list of all equipment to be used, including subcontractors' equipment. The list will be organized by SFJV and subcontractors, and will include equipment type, model, fuel source and emission characteristics. The list will also include subtotals and grand totals of quantities of equipment for each engine standard tier. The list will be updated monthly and be submitted to LAWA in the monthly reports. SFJV will ensure that equipment is in proper working order to minimize harmful emissions. To ensure the implementation of all components of the construction-related air quality/pollution-control measures, SFJV will designate a person(s) to conduct direct inspections, record reviews, and investigate complaints.

7. Noise Control

SFJV is committed to comply, to extent feasible, with the noise control requirements of the Contract and the City of Los Angeles noise ordinance. It is anticipated that significant construction activity and construction related noise will take place immediately adjacent to LAX area hotels. Included in the appropriate, subsequent task orders/CGMP, SFJV will propose to make resources available to collaborate with LAWA and the third-party hotel operators to find viable noise control measures. The noisiest on-site construction activities will avoid sensitive times of the day, as feasible, which include:

- Monday-Friday: 9:00 PM to 7:00 AM
- Saturday: 6:00 PM to 8:00 AM
- Anytime on Sunday and Holidays.

Noise control measures include utilizing devices such as equipment mufflers, enclosures, and barriers on all construction equipment to reduce noise impacts. Natural and artificial barriers such as existing dirt berms, ground elevation changes, solid fencing, and existing buildings can be utilized, where appropriate, to shield construction noise. Construction operations, loading/unloading of heavy materials/equipment, and stationary equipment (such as generators) will be staged as far from noise-sensitive uses as feasible.

When an increase of 5 dBA is projected to occur over the baseline exterior noise level, noise curtains during construction to shield noise-sensitive receptors from construction will be used. To verify the efficiency of the noise curtains, LAWA will measure construction noise levels at the closest sensitive receptors in

compliance with City standards. Should noise levels exceed the 5 dBA increase, LAWA will require SFJV to implement additional technical solutions and installation of (noise attenuation/shielding) equipment and will repeat measuring construction noise levels, until an increase of 5 dBA does not occur. SFJV will provide the required Construction Noise Control Plan (CNCN) to control noise impacts to noise-sensitive areas with each of the subsequent design packages and comply with the requirements of MM-CN (ATMP)-1 in the ATMP MMRP .

8. Sewage Spill Prevention and Emergency Response Plan

SFJV will prepare, submit, maintain, and implement a Sewage Spill Prevention and Emergency Response Plan (SSPERP) as required by the Contract. The SSPERP will comply with applicable LABOE Master Specification – Section 01563 Pollution Control, address sanitary sewer utility relocation work and account for all storm drain systems that could be affected by a sewage spill. The specific locations and details of sanitary sewer work will be determined as part of the Design Development Task Order scope. SFJV will include the SSPERP with that subsequent task order scope.

Additionally, the SSPERP will also address implementation of measures to prevent sewage spills; procedures for spill control and containment, notifications, emergency response, and cleanup; and spill and damage reporting. SFJV will utilize secondary containment measures for construction temporary portable sanitary toilets onsite. Catch basins that could receive spilled sewage will be identified. Unless otherwise specified in the specifications, these catch basins shall be sealed prior to operating the bypass and pumping system. SFJV will remove all material used to seal the catch basins when the bypass and pumping system operations are complete. SFJV will be fully responsible for containing any sewage spill, preventing any sewage from reaching a watercourse, recovery, and legal disposal of any spilled sewage, any fines or penalties associated with the sewage spilled. Should existing sewer facilities be disturbed, sewage will be conveyed in closed conduits and disposed of in a sanitary sewer system following all applicable codes.

9. Water Pollution Control

In a subsequent task order, SFJV will propose to include resources necessary to comply with applicable Federal, State and local regulations. Specific notable requirements are included in:

1. LAWA Guidance Manual for Construction Storm Water Pollution Prevention.
2. NPDES Permit for the City of Los Angeles (NPDES Permit No. CAS004001)
3. Los Angeles Standard Urban Storm Water Mitigation Plan (SUSMP)
4. City of Los Angeles, Bureau of Engineering Green Streets Standard Plans

In addition to complying with the applicable requirements of the National Pollutant Discharge Elimination System (NPDES) permit, SFJV will follow their approved project Stormwater Pollution Prevention Plan (SWPPP) as specified in Section 10 of this plan. SFJV will conduct/schedule its operations, follow, and implement best management practices (BMPs), in such a manner as to prevent water pollution, including that by introducing sediments into the receiving water, as defined by NPDES permit requirements.

10. Best Management Practices

SFJV has provided a preliminary SWPPP plan in Appendix 17, which will be updated to 100% construction ready status in future task orders that is compliant with the SWRCB Order No. 2022-0057-DWQ. SFJV will also propose to include resources necessary to comply with applicable Federal, State and local regulations.

SFJV has engaged Kroner Environmental as part of the Design-Build Contractor team. Kroner Environment is a highly qualified, reputable DBE environmental consulting firm with the Qualified SWPPP Developer (QSD) credential. Kroner Environmental will be commissioned by SFJV to oversee the design, implementation, and maintenance of the SWPPP BMPs.

The SWPPP, to be submitted to LAWA for review and approval, will outline in greater detail how the Project will prevent and control water pollution. Requirements for the selection, installation, maintenance, inspection, removal, documentation, and reporting of BMPs measures for effective stormwater pollution and construction runoff prevention during construction activities for projects governed by the California Construction General Permit (CGP), Federal, local, and project requirements. Stormwater controls and BMPs to be implemented may include perimeter controls, runoff controls, inlet protection, dust control, track out protections, stockpile management, soil erosion controls, vehicle/equipment washing, vehicle fueling, vehicle maintenance, concrete handling, concrete waste management, spill prevention and control, hazardous materials handling, trash, and fuels, oils, solvents, or other toxics management.

11. Dewatering

As part of the scope of a subsequent task order, prior to construction, SFJV will provide a dewatering plan. SFJV will conform to all applicable local, state, federal laws, and permits issued by regulatory authorities having jurisdiction (AHJ's).

Permits necessary for treatment and disposal of accumulated water will be obtained by SFJV. Accumulated water shall be treated prior to disposal if required by the SWPPP and/or permit. The plan will also identify the proposed location, type and size of dewatering devices and related equipment, including the size and type of materials composing the collection system, retainage system, treatment system (if required), and proposed disposal locations. Working drawings and supporting information detailing its proposed methodology of dewatering, treatment and disposal of accumulated water will be included.

SFJV anticipates that the locations requiring dewatering activity will be identified in subsequent design development. If a proposed disposal location is a sanitary sewer or storm drain system, SFJV will obtain written evidence of permission from the appropriate regulatory agencies and submit it to LAWA.

12. Drainage Control

As part of the scope of a subsequent task order, prior to construction, SFJV will provide a drainage control plan to ensure that storm and drainage water does not pond due to the temporary impacts to existing drainage facilities (blockages, removals, etc.). SFJV will provide temporary methods to allow for drainage during construction phases. The location and type of temporary drainage facilities will be identified in

subsequent design development.

13. Recycling and Solid Resources Management

SFJV will implement methods to recycle a minimum of 85% of waste materials generated during construction and demolition. The largest portion of recycled materials are anticipated to be excavated soil, demolished concrete/asphalt, steel, and green-waste. The format and data of the required monthly reporting to LAWA will be developed prior to the start of Construction. This is expected to include quantitative data (by weight and/or volume) of the materials recycled, reused and/or disposed of for the project, with subtotals and grand totals provided for each material type (i.e. concrete, steel, etc.).

14. Tribal, Archaeological, and Paleontological Resources

During construction, grading and excavation activities will comply with the requirements of the LAX Master Plan Paleontological Management Plan, LAX Master Plan Archeological Treatment Plan, and LAWA's tribal monitoring commitment. This includes a briefing by the appointed Cultural Resource Monitor and consultation with a Tribal monitor prior to excavation and grading activities. All personnel involved in grading and excavation will be required to attend the briefing. LAWA requires at least 90 days prior to grading/excavation, construction plans/specifications indicating whether and where grading/excavation will or may occur at depths greater than 5 feet beneath unpaved areas or 10 feet beneath paved areas. The Tribal monitor will have access to project areas during such grading/excavation activities that have the potential for encountering archaeological resources in undisturbed soils.

15. Hazardous and/or Regulated Materials

SFJV will provide a Hazardous and/or Regulated Materials Plan (HMMP) prior to construction. The HMMP will describe methods and procedures to safely detect, locate, identify, monitor, test, analyze, quantify, handle, treat, transport and dispose of hazardous and/or regulated materials within buildings, soils, and other areas on the project site in accordance with all federal, state and local rules and regulations. This includes, but is not limited to, asbestos, lead, mercury, polychlorinated biphenyls (PCBs), refrigerants, petroleum hydrocarbons, fuels, volatile organic compounds (VOCs), and other hazardous and/or regulated materials. A qualified Hazardous Materials Manager will be appointed by SFJV to identify hazardous and/or regulated materials, initiate response and contingency plans, provide notifications to LAWA and the proper regulatory agencies in the event of encountering such materials, and training personnel onsite as needed.

No specific hazardous or regulated materials have been identified and analyzed yet. Asbestos Containing Materials (ACM) are commonly encountered in demolition of structure bearings and some domestic water conveyance pipelines. SFJV will be conducting due diligence to identify and locate ACM's and other hazardous/regulated materials as part of the existing records and site investigation scope.

During construction SFJV will monitor excavations and demolition work for potential encounters of hazardous/regulated materials. The risk of encountering unknown hazardous/regulated materials will be allocated in future task orders/cGMP's.

16. Environmental Monitoring and Control – Compliance Reporting

During construction SFJV will submit a monthly environmental report demonstrating compliance with all environmental requirements on the project. The format of the required monthly reporting will be developed prior to the start of Construction. LAWA will randomly monitor compliance with environmental mitigation requirements throughout the term of the contract and retains the authority to assess penalties for non-compliance.

Should such non-compliance be not fully addressed and corrected to the satisfaction of LAWA within 24 hours from the time the non-compliance is first observed or noted by LAWA, or a corrective action plan acceptable to LAWA is not provided within that 24-hour period, the penalties set forth are subject to increase until the non-compliance is corrected to the satisfaction of LAWA or an acceptable corrective action plan is provided to LAWA.

Appendix 20 – Permitting Plan



Permitting Plan (PR-01)

Contents

Permitting Plan	3
1.0 Overview and Goals.....	3
2.0 Permitting Plan and AHJ Strategy	4
3.0 Permitting Close Out	6

Permitting Plan

1.0 Overview and Goals

The goal of the permitting plan is to outline the SFJV strategy to obtaining permits for the ATMP roadways so that construction can begin. As the new roadway network lies within both private property and public Right-of-Way limits both LAWA and City of Los Angeles are responsible for making sure that SFJV can obtain permits seamlessly.

The roadways that need to be permitted have been broken up into three different areas as shown on the map below:

1. Yellow area will follow Caltrans Standards
2. Blue will follow Project Specific Standards
3. Pink will follow City of Los Angeles Standards



2.0 Permitting Plan and AHJ Strategy

Through various meetings with LAWA, SFJV and the applicable City agencies it has been deemed that the permitting on the project will be completed as follows:

- LADBS will be the permitting authority for all improvements with Private Properties.
- Structural and Foundation review of Bridges will be undertaken by LABOE
- Pedestrian Bridges will be reviewed and permitted by LADBS.
- For the new roadway segments that serve as direct airport connectors and do not meet functional classifications of public or private streets defined by BOE's Street Design Manual, City of Los Angeles Complete Streets Design Guide, and municipal code, LADBS will issue a use-of-land permit with a clearance for structural review by LABOE.
- LABOE will review these roadway segments and issue B-permits (as clearances) as part of the process prior to LADBS issuing the applicable land use permits.
- LABOE will not issue B-permits until Caltrans also reviews and approves sections that cross Caltrans Right-of-Way.
- LADBS will also have purview over site grading, electrical, and drainage connections on LAWA's private facilities. LABOE will also review drainage connections to public drainage systems and drainage within bridge structures.
- Improvements to existing roadway elements in the City of Los Angeles public road Right-of-Way that do not serve as direct airport connectors are anticipated to be permitted by LABOE under the B-permit process.
- The permitting approach to 96th St. will follow a Use of land permit from LADBS with a B-permit clearance from LABOE. LAWA intends to vacate this portion of public Right-of-Way and establish a private street easement for the portion of 96th St. between Sepulveda Blvd and Jetway Blvd. This road will serve a multi-use function related to airport access.
- Significant coordination will be required with the following City of Los Angeles entities to review and approve the respective components of the LAWA roadway design:
 - Los Angeles Department of Transportation (LADOT)
 - Los Angeles Department of Building and Safety (LADBS)
 - Los Angeles Bureau of Street Lighting (LABSL)
 - Los Angeles Bureau of Street Services (LABSS)
 - Los Angeles Department of Water & Power (LADWP)
 - LA Sanitation & Environment (LASAN)
 - LACFD – Los Angeles County Fire Department (LAFD)

The LABOE B-permit will be issued once LADOT, LABSS, LABSL, LABOE and LASAN give their approval.

Through meetings with LAWA, LABSL and LADBS it has been determined that the Street Lighting will be permitted as follows.

- Private ROW (BLUE) – City of LA LABSL will review under a B permit. Any clearances for Electrical for the Land Use permit will be issued by LADBS.
- Public ROW (Pink) – City of LA LABSL will review.
- CALTRANS ROW (Yellow) – City of LA LABSL will review.

ATMP Street Lighting Permitting Agency and Reviewer Matrix			
Permitting Agency/Reviewer			
ITEM	BLUE (Private ROW)	PINK (Public ROW)	YELLOW (Caltrans ROW)
Lighting Calcs - Part of Plan Check	TED	LABSL	LABSL
Pole and Luminaire Types	LABOE / LABOE	LABOE / LABSL	LABOE / Caltrans / LABSL / Caltrans
Pole Anchorage/ Foundation	LABOE / LABOE	LABOE / LABSL	LABOE / Caltrans / LABSL / Caltrans
Point of Service Connection and Metering	LADBS / LABOE Electrical	LABOE / LABSL / LADWP	LABOE / LABSL / LADWP
Conduits and Pull Boxes (System Appurtenances)	LADBS / LABOE Electrical	LABOE / LABSL	LABOE / LABSL

Caltrans will be the AHJ for the improvements within their right-of-way, as well as reviewing and issuing encroachment permits for LAWA-owned structures that span over their right-of-way.

The following are the steps required to obtain an encroachment permit from Caltrans:

1. Complete the "Standard Encroachment Permit Application" (form TR-0100)
2. Attach supporting documentation, such as:
 - o Plans
 - o Location map
 - o Environmental documentation
 - o Letter of authorization
 - o Surety bonds
 - o Liability insurance
 - o Any applicable fees
3. Submit the application and documentation to the District Encroachment Permits Office that has jurisdiction over the proposed encroachment site

3.0 Permitting Close Out

Key strategies that will be used to facilitate AHJ permitting of the design include:

- Project Specific Design Criteria: Thru meetings with LADOT and LAWA the roadway geometry and typical section components such as lane width, shoulder width, non-crowned slope, and barrier, for new roadway segments that serve as direct airport connectors and that do not meet functional classifications defined by BOE's Street Design Manual and City of Los Angeles Complete Streets Design Guide have been discussed in detail.
- Improving collaboration between LAWA, Design-Builder (SFJV), Designer (HNTB), and AHJ plan reviewers by committing to co-locating at an integrated project management office throughout the duration of the project.
- AHJ participation in task force work groups to participate in design development will significantly improve the level of familiarity with the design and how specific challenges are being addressed.
- Utilizing experienced and local AHJ coordinators on the Design-Builder team to identify permit requirements.
- Discussing with BOE the optimum number of B-permits to allocate based on size of design packages and the need for other AHJs to be able to review design content holistically, beyond the permit limits of a package. Additionally, the B-permits will need to align with the construction sequencing strategy.

Appendix 21 – Third Party and Agency Coordination Plan (PR-12)



Third Party and Agency Coordination Plan (PR-12)

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Contents

Third Party and Agency Coordination Plan	3
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Third Party and Agency Coordination Plan

This third party and agency coordination plan outlines the strategies SFJV will take for effective coordination with third-party contractors and various agencies during the construction of the ATMP roadways project at LAWA. Successful implementation will ensure efficient project execution, minimize disruptions, and adhere to all regulatory authorities.

1.0 SFJV Third Party Coordination Team:

The SFJV Third Party Coordination Team is outlined below. This team has extensive experience successfully processing projects through AHJs in the City of Los Angeles. Jill Steiner will be the Third party Manager for the project.



2.0 Third Party Stakeholders:

There are various entities involved in the third-party coordination. SFJV will manage subcontractors. There are also Airport Stakeholders and Regulatory Agencies that will need to be coordinated with.



3.0 Utility Relocations:

SFJV will coordinate with public agencies, emergency services, and public and private utilities. SFJV will be responsible for ensuring that all Project requirements affecting facilities owned or controlled by these agencies will meet with their approval, in accordance with established agreements (MCA's, MOU's, established policies and procedures). These services will be provided to ensure that any relocation, abandonment, or protection in place of facilities owned or controlled by these agencies are in accordance with their requirements, and the required approvals and permits have been secured. These services will include a comprehensive technical description and plans for each facility or utility to assist in identifying possible impacted areas and in preparing and/or amending agreements with these organizations.

4.0 MCA and Utility Agreements with Cities:

SFJV will be responsible for performing any obligations under a Master Cooperative Agreement to the extent necessary to meet SFJV's obligations for the design and construction of the Work.

5.0 Third Party Coordination Strategies:

1. Early and Continuous Communication:

- SFJV will establish a Joint Information Center (JIC) using Procore for centralized communication and document sharing between the team.
- SFJV will convene regular stakeholder meetings (weekly, monthly) with clear agendas and action items.
- LAWA will develop communication protocols for proactive and timely updates (e.g., construction alerts, traffic impacts). This is part of the CALM process as shown in PR-02 and PR-03.
- SFJV will utilize online platforms for collaboration and transparent information access. For example: Procore and Bluebeam,
- SFJV will be assisting LAWA with establishing MOUs and utility relocation agreements.
- SFJV will keep LAWA informed of all Third-party communication and copy the LAWA third party team on all correspondence with third parties.

2. Clearly Defined Roles and Responsibilities:

- LAWA and SFJV together will establish clear lines of authority and decision-making processes.
- If required, LAWA will conduct training sessions for all stakeholders on their specific roles and responsibilities.

3. Effective Permitting and Regulatory Compliance:

- SFJV will Identify all required permits and approvals early in the planning process.
- SFJV will establish a dedicated team for permit acquisition and maintain regular communication with agencies.
- LAWA and SFJV will Proactively address potential compliance issues and develop mitigation strategies.
- LAWA will conduct regular inspections and audits to ensure adherence to regulations.

4. Community Engagement and Outreach:

- LAWA will develop a Community Outreach Plan (COP) to inform and engage surrounding communities.
- LAWA will establish a Community Liaison Officer (CLO) to handle community concerns and inquiries.
- LAWA will organize public meetings, information booths, and online communication channels.
- LAWA will address community concerns regarding noise, dust, traffic disruptions, and economic impacts with SFJV input.

5. Contract Management and Risk Mitigation:

- LAWA will develop a robust contract management process with clear performance metrics and milestones.
- SFJV would Identify and assess potential risks and develop mitigation plans.
- SFJV and LAWA will conduct regular risk reviews and update mitigation plans as needed.

- LAWA will implement a robust change management process to manage scope changes and budget adjustments making sure all third-party agencies are aware of such process.
- 6. **Sustainability and Environmental Management:**
 - SFJV will integrate sustainability practices into construction activities (e.g., recycled materials, energy efficiency) as outlined in PR18 and PR 20
 - SFJV and Kroner Environmental will monitor and report on environmental performance throughout construction.
 - SFJV will comply with all applicable environmental regulations and obtain necessary permits.
- 7. **Dispute Resolution and Conflict Management:**
 - SFJV and LAWA will establish a clear and efficient dispute resolution process to address disagreements promptly. Any issues that need to be resolved will be elevated to Partnering sessions.
 - SFJV and LAWA will encourage open communication and collaboration to resolve issues constructively.

Technology and Resources:

- SFJV will utilize project management software for streamlined communication, document sharing, and task management.
- SFJV will implement collaboration platforms for online meetings, real-time updates, and stakeholder engagement.
- SFJV will utilize tools to track progress, monitor performance, and identify potential issues.
- SFJV and LAWA will allocate sufficient resources for dedicated personnel, communication efforts, and risk management processes.

Conclusion:

Effective coordination with third-party contractors and various agencies is critical for the successful completion of the ATMP roadway construction project at LAWA. By implementing the strategies outlined in this plan, LAWA can ensure a smooth project execution, minimize disruptions, and achieve its project goals while fulfilling its commitment to safety, quality, sustainability, and community engagement.

Appendix 22 – Communication Plan



Communications Plan (PR-01)

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Contents

Communication Plan 3

1 Overview and Goals 3

2 Organization 3

3 Continued Plan Development 4

Communication Plan

1 Overview and Goals

LAWA has made an investment in the future success of Los Angeles International Airport with the procurement and commencement of the ATMP Roadways Project. The communication plan will provide the outline for interacting with neighbors and businesses and working closely with LAWA to educate and inform stakeholders about construction activities.

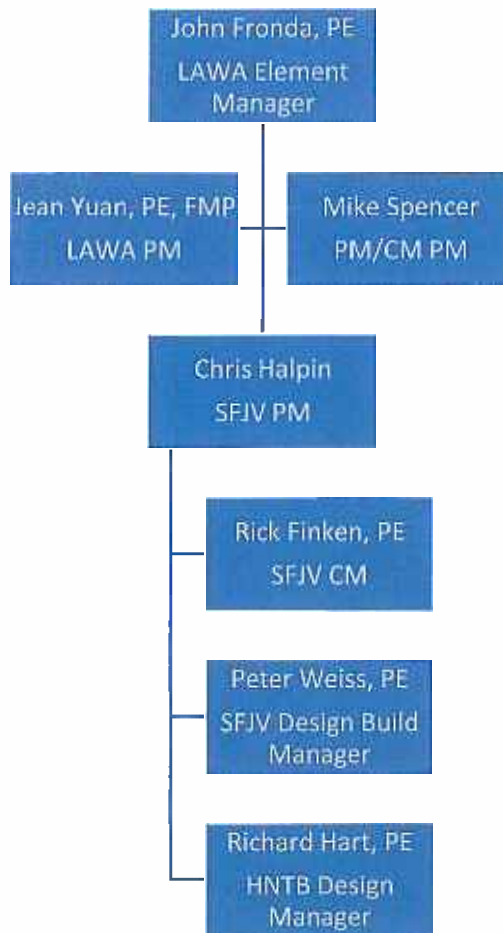
This document outlines the framework for a strategic communications plan that provides for the exchange and dissemination of timely, accurate and responsive information to stakeholders and the public at large.

The Goals of this Public Information and Communications Plan are to:

- Develop proactive outreach strategies to identify foreseeable problems and mitigate them when possible
- Provide communications on construction schedule and upcoming activities in a timely manner
- Establish a public participation process that allows stakeholders the opportunity to provide input during the design process
- Establish daily protocols, processes, roles and responsibilities
- Discuss procedures for complaint response and resolution
- Identify and create opportunities to celebrate milestones with Project stakeholders
- Build and maintain public goodwill

2 Organization

During the Preconstruction phase SFJV will coordinate all communications through the LAWA team, in particular with 3rd party and stakeholder outreach, as further defined in Appendix 23 Stakeholder Engagement and Management Plan. The organization as concerned with stakeholder outreach for the Preconstruction phase is shown below:



3 Continued Plan Development

As the project continues to develop, SFJV will coordinate with LAWA to develop further this plan on who will lead outreach and communication for the project, and how SFJV will implement that plan in either leading or supporting LAWA.

Appendix 23 – Stakeholder Engagement and Management Plan



Stakeholder Engagement and Management Plan (PR-01)

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Contents

Stakeholder Engagement and Management Plan.....	3
1. Overview and Goals	3
2. Identification of Stakeholders	3
3. Plan for Stakeholder Management	10
4. Management of Stakeholder Engagement	10
5. Control Stakeholder Engagement	10

Stakeholder Engagement and Management Plan

1 Overview and Goals

This project requires extensive coordination with stakeholders and third parties. Throughout the design and construction of the project design workshops, BIM fly-through presentations, digital simulations, and formal design reviews will all be required with LAWA, LADOT, Caltrans, LADPW-BOE, LADBS, Airlines, Tenants, Operators, and adjacent projects will be required to help with coordination and approvals. The purpose of this plan is to define the processes to identify the people, groups, and organizations that could affect or be affected by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate strategies and tactics for effectively engaging stakeholders in a manner appropriate to the stakeholders' interest and involvement in the project.

2. Identification of Stakeholders

SFJV has prepared an initial list of stakeholders and provided the list to LAWA for review and their comments. The initial list is included below and will be updated as new information is obtained, people/positions change, or LAWA provides feedback for changes/additions/deletions.

Additionally, SFJV has provided it's initial recommendations for who should be included in the stakeholder interviews for the BOD phase as described in section 3 of this Stakeholder Engagement and Management Plan.

SFJV Rec for Interview	Agency / Stakeholder	Contact Name	Phone Number/Email	Interest (AHJ, other)
	City of Los Angeles			
X	LA DPW BOE City Engineer Dev. Svcs. and Permitting	Ted Allen (City Engineer) Agency Lead <ul style="list-style-type: none">Agency Work Group Team<ul style="list-style-type: none">Shay Dong	213.887.2827 shawyue.doong@lacity.org	
	LA DPW BOE Deputy CE – Engineering Services	Jose Fuentes	(213) 485-4906 jose.fuentes@lacity.org	
	LA Department of City Planning	Vince Beroni (AHJ Principle) Director of Planning Agency Lead <ul style="list-style-type: none">Kevin Keller Agency Work Group Team <ul style="list-style-type: none">Haydee Urita LopezZuriel EspinosaSteven Garcia	(213) 978-1272 kevin.keller@lacity.org (213) 978-1325 haydee.urita-lopez@lacity.org (213) 978-1249 zuriel.espinosa@lacity.org	

SFJV Rec'tor Intervi ew	Agency / Stakeholder	Contact Name	Phone Number/Email	Interes t (AHJ, other)
	LA DPW – BO Street Services	Keith Mozee (Exec Director and GM) Agency Lead • Shirley Lau Agency Work Group Team • Nishith Dhandha • Jordan Henry	(213) 847-3333 shirley.lau@lacity.org (213) 847-0974 nishith.dhandha@lacity.org jordan.henry@lacity.org	
	LA DPW – BO Street Lighting	Miguel Sangalang (exec. Director and GM) Agency Lead • James Quigley Agency Work Group Team • Paul Wag	(213) 847-1450 paul.wang@lacity.org	
X	LA Dept. of Bldg. & Safety	Osama Younan (GM – Supt. Of Building) Agency Lead • Binh Phan Agency Work Group Team • Lily Teng • Charmie Huynh	(213) 482-0435 binh.phan@lacity.org (213) 482-6871 lily.teng@lacity.org (213) 482-6875 charmie.huynh@lacity.org	
	LADWP – Water	Martin Adams (GM and Chief Engineer) Agency Lead • Todd Nugyen Agency Work Group Team • Nathaniel Bautista • Mark Patterson	 nathaniel.bautista@ladwp.com mark.patterson@ladwp.com	
	LA Bureau of Sanitation-Stormwater	Barbara Romero (Director and General Manager) Agency Lead • Julie Allen Agency Work Group Team • Alfredo Magallanes • Orval Hernandez-Marcial	(213) 485-2210 julie.allen@lacity.org (213) 485-3958 alfredo.magallanes@lacity.org (213) 378-1284 orval.hernandez-marcial@lacity.org	

SFIV Rec for Interview	Agency / Stakeholder	Contact Name	Phone Number/Email	Interest (AHJ, other)
	LA Bureau of Sanitation - Wastewater	Barbara Romero (Director and General Manager) Agency Lead • Mas Dojiri Agency Work Group Team • Than Win • Azya Jackson	(213) 485-2210 mas.dojiri@lacity.org (323) 342-6268 than.win@lacity.org (213) 207-0818 azya.jackson@lacity.org	
	LADWP – Recycled Water	Mario Acevedo	213-367-0761	
	LADWP – Power	Martin Adams (GM and Chief Engineer) Agency Lead • Louis Ting Agency Work Group Team • Jason Hills	(213) 367-5098	
	LA Dept. of Transpo. Asst. GM – Mobility Management	Jay Kim	(213) 972-8422 jay.kim@lacity.org	
X	LA Dept. of Transpo. Asst. GM – Proj. Delivery and Operations	Connie Llanos (Interim GM) Agency Lead • Dan Mitchell Agency Work Group Team • Randy Tanijiri • Fabio Arias • Chris Date • Don Schima • Eddie Guerrero	(213) 972-8432 dan.mitchell@lacity.org (213) 972-8685 fabio.arias@lacity.org (213) 972-8689 chris.date@lacity.org (213) 972-5968 don.schima@lacity.org (213) 972-8476 eddie.guerrero@lacity.org	
	LA Bureau of Contract Administration	John Reamer (Inspector of Public Works) Agency Lead • Roosevelt Bagby II Agency Work Group Team • Ken Hendricks • Mike Smith	(213) 847-2366 roosevelt.bagby@lacity.org ken.hendricks@lacity.org michael.j.smith@lacity.org	

SFJV Rec for Interview	Agency / Stakeholder	Contact Name	Phone Number/Email	Interest (AHJ, other)
	LA Fire Dept	Kristin Crowley (Fire Chief) Agency Lead <ul style="list-style-type: none"> Armando Hogan (Deputy Chief) Agency Work Group Team <ul style="list-style-type: none"> Nikkie Brodowy Marcus Law Andrew Ko 	(213) 482-6927 andrew.ko@lacity.org	
	LA Mayor's Office	Rachel Freeman		
X	11th District City Council Office	Traci Park		
	Department of Public Works Bureau of Contract Administration	Agency Lead <ul style="list-style-type: none"> Roosevelt Bagby 	(213)887-2827 Roosevelt.bagby@lacity.org	
	Department of Cultural Affairs		(213) 202-5500 201 N Figueroa Street 14 th Floor, Los Angeles	
	Public Arts Commission			
	County of Los Angeles			
	MTA	Mark Glick	310-431-3362	
	LACo. FCD	TBD		
	LACo. Dept Public Works	Waqas Rehman	wrehman@dpw.lacounty.gov	
	Cities			
	City of Inglewood	Boytrese Osias	bosias@cityofinglewood.org	
	City of Culver City			
	Inglewood Chamber of Commerce	TBD		
	El Segundo Chamber of Commerce	TBD		
	District 11 Traci Park Office	TBD		
	City of El Segundo	Ken Berkman	kberkman@elsegundo.org	
	City of Hawthorne	Dweeja Torado	dtorado@cityofhawthorne.org	
	City of Torrance			
	State of California			
	Caltrans District 7 Director	Gloria Roberts Agency Lead		

SFJV Rec for Interview	Agency / Stakeholder	Contact Name	Phone Number/Email	Interest (AHI other)
		<ul style="list-style-type: none"> Susan Change Agency Work Group Team <ul style="list-style-type: none"> Norma Hui (Encroachment Permit < \$2M in Construction Value)		
X	Caltrans District 7	Osama Megalla Janice Lu Michael Francis (Area CM for Structures)	213-792-2999 osama.megalla@dot.ca.gov janice.lu@dot.ca.gov	
	Caltrans District 7 - Deputy District Director for Construction	TBD	TBD	
X	Caltrans District 59 - Structures	Richard Hartzell		
	LAX			
	LAWA Communications IT	Mark Pohl	424-646-5915	
	LAWA Shutdown Control Center	John Mitchell	424-646-5977	
	LAWA Airport Police Department	Captain Karla Rodriguez Captain Edward Martinez	424-646-7911 krodriguez@lawa.org emartinez@lawa.org	
	LAWA Airport Response Coordination Center		424-646-5292	
	LAX Fuel	Jim Moses Doug Quast	310-646-5915 310-646-4961	
X	CALM	Mark Henry John Gruendl	MHENRY@lawa.org jgruendl@lawa.org	
	Terminal Operations	(South) RODRIGUEZ, JOSE D. (TBIT) MCENEANEY, EVE E (North) JANOVEC, JAMES R. GIDEON, JUAN C. TIGERT, CHRISTINA Cassandra Heredia (ADA)	JRODRIGUEZ@lawa.org EMCENEANEY@lawa.org JJANOVEC@lawa.org JGIDEON@lawa.org CTIGERT@lawa.org cheredia@lawa.org	
X	Landside Operations	Richard Chong Ben Chai Fermin Gomez (ASR)	Rchong@lawa.org bchai@lawa.org	

SEJV Rec for Intervi ew	Agency / Stakeholder	Contact Name	Phone Number/Email	Interes t (AHI, other)
		John Fewel Brandon Morita Simon Wallwork (LIR)	fgomez@lawa.org jfewel@lawa.org bmorita@lawa.org swallwork@lawa.org	
	USO Operations	Jill Villalpando	jvillalpando@uso.org	
	Airside Operations	Chad Williams Cary Buchanan	cwilliams@lawa.org cbuchanan@lawa.org	
	Night Operations	Steve Niupulusu	SNiupulusu@lawa.org	
	Commercial and ROW			
X	LAWA Emergency Management Division	Justin Pierce	jpierce@lawa.org	
	CDD	Dave Jones	djones@lawa.org	
X	CEO's Office	Justin Erbacci		
X	CDO's Office	Terri Mestas		
	DED – ADP	Emery Molnar	emolnar@lawa.org	
	CAE – ADP	Mark Vicelja	mvicelja@lawa.org	
	LAWA Safety	Dan Perez	dperez2@lawa.org	
	LAWA Quality Assurance & Construction Inspections Division	Gerardo Lopez	glopez@lawa.org	
	LAWA Mobility	Dave Reich Shirlene Sue	dreich@lawa.org ssue@lawa.org	
	APD - Security			
	LAWA IT – DSS/Cameras - Traffic Related	Raul Velasco	rvelasco@lawa.org	
	LAWA IT - GTMS	Rendell Johnson	rjohnson5@lawa.org	
	LAWA IT – Comm/Telecomm	Mark Pohl	mpohl@lawa.org	
	LAWA IT – Security Cameras	Marine Mandoyan	mmandoyan@lawa.org	
	Environmental Planning	Evelyn Quintanilla James Owen	equintanilla@lawa.org jowen@lawa.org	
	MMRP	Tina Backstrom	tbackstrom@lawa.org	
	Airport Planning	Ryan Pang Bearj Sarkis	cpang@lawa.org bsarkis@lawa.org	
	Airport Operational Readiness (AOR) Team			
	LAWA FMUG			
	Wayfinding			
	Federal Govt.			
	Federal Aviation Admin.	Jake Florendo	424-405-7704	

SFJV Rec for Interview	Agency / Stakeholder	Contact Name	Phone Number/Email	Interest (AHJ, other)
			Jake.Florendo@faa.gov	
	Federal Aviation Admin.	Mark Guan	424-405-7273 mark.guan@faa.gov	
	Utility Companies			
	AT&T	Allen Cole	760-220-5539	
	Time Warner Cable	TBD		
	So Cal Edison	Michelle Lambert	310-608-5101	
	So Cal Gas Co. (Sempra)	Gale Etherly	310-687-2020	
	SCE (Local Rep)	TBD	TBD	
	Verizon Business	Dan Garden	909-421-3316	
	XO Communications	Matt Bergine	949-417-7841	
	Centurylink	Bryan Church	503-560-5590	
	Private Entities			
X	Gateway Los Angeles Airport Business District	Christina Davis	310-216-7328 / cdavis@gatewayla.org	
	Westchester Town Center Sepulveda Blvd BID	Donald R. Duckworth Exec. Dir	310 - 417- 9030 Donald.duckworth@gmail.com	
	Drollinger Companies	Karen Dial, President	310-417-8091 Karen@drollingerproperties.com	
	LAX Coastal Chamber of Commerce	Chad Maender Exec. Dir	310-645-5151 chad@laxcoastal.com	
	Neighborhood Council of Westchester Playa del Rey	Julie Ross Chair Airport Relations Committee	ARC@ncwpdr.org	
	Airlines			
	Airport Tenants			

3. Plan for Stakeholder Management

Stakeholder management during the BOD phase shall consist of performing the stakeholder interviews identified in PR-01 3.C.2.b.5 with LAWA's CEO, CDO, and up to 10 other key stakeholders to be identified by LAWA, with SFJV having provided their recommendations in the table in Section 2 of this document. The purpose of these interviews is to learn and understand client and stakeholder goals, limitations, and aspirations for the ATMP Roadway Improvement Project.

SFJV will coordinate with LAWA to set up the interviews once LAWA has finalized the list of interviewees, and will document the goals, limitations, and aspirations for the project of each of the identified stakeholders.

Further plans for continued stakeholder management in future task orders will be developed in subsequent updates to this plan.

Stakeholder management post-BOD has consisted of the project's regular task force meetings, select individual meetings with key stakeholders on issues (ex. LAFD and APD), and supporting LAWA with outreach to external stakeholders such as adjacent property owners.

4. Management of Stakeholder Engagement

After the stakeholder interviews SFJV will document with meeting minutes the goals, limitations, and aspirations of each Stakeholder. SFJV will then review these with LAWA and determine how much of these can be incorporated into the project while still meeting the overall project goals, schedule, and budget.

Further plans for continued management of stakeholder engagement will be developed in subsequent updates to this plan.

Stakeholder management post-BOD has consisted of the project's regular task force meetings, select individual meetings with key stakeholders on issues (ex. LAFD and APD), and supporting LAWA with outreach to external stakeholders such as adjacent property owners.

5. Control Stakeholder Engagement

Plans for controlling stakeholder engagement beyond the stakeholder interviews will be developed in subsequent updates to this plan.

Appendix 24 – Procurement and Packaging Plan (including but not limited to self-perform, subcontracting, etc.)



Project Procurement Plan (PR-01, Scope of Work)

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Contents

1.0	Overview:	3
2.0	Identification of Work Packages:.....	3
3.0	Schedule for the Project Trades:	5
4.0	Self-Perform Work:.....	5
5.0	Early Enabling Work:	5
6.0	GMP/CGMP Packages.....	6
7.0	Buy American/Build America Requirement:	6
8.0	Permanent Material Procurement for Self-Perform Work:.....	6
9.0	Procurement of Long-Lead Items:.....	7
10.0	Subcontractor Procurement Process (GC-9):	7
11.0	Insurance Requirements for Subcontractors:	11
12.0	Project Labor Agreement:	11
13.0	Subcontractor Management During Execution of the Work:	11
14.0	Subcontractor Close-out:	11
15.0	Appendices:.....	11
	Appendix A – Subcontract Sample	12

1.0 Overview:

Skanska-Flatiron Joint Venture (SFJV) prepared this Procurement Plan as the framework for our project management team to manage the subcontracted work and the procurement of permanent materials for self-performed work throughout Phase 2 of the LAWA ATMP Roadways Progressive Design-Build Contract (Contract). This plan is a living document and, as such, will be maintained and updated throughout the duration of the Contract. We will provide training based on this document to ensure continuity and consistency among our teammates throughout the Project. The plan includes companion documents for ease of understanding and organization. These documents are included in the appendices and referenced throughout the Construction Plan. This Table 4 – Self-perform Work procurement plan is preliminary and SFJV reserves the right to revise and amend it at a later date.

The SFJV team will provide recommendations for subcontractor and material vendor awards based on responsiveness (commitment to inclusivity goals, understanding of scope, quality fitness, capacity, key personnel, safety statistics, and experience) and lowest bid price. As a part of the open-book, transparent process, all quotes and estimates will be shared with LAWA for independent evaluation and quality assurance check.

2.0 Identification of Work Packages:

The table below, shows a breakdown of the anticipated Subcontract packages. This list includes specialty trade work as well as work that can be packaged to accommodate competitive proposals and DBE participation. SFJV will evaluate subcontractor scope to determine the level of support needed for best value and to cover potential scope gaps. SFJV will self-perform portions of the scope descriptions as a means to provide subcontractor support.

Table 2 – Subcontract Packages

Sub-Package:	Description:	ROM Estimate Cost:
01	Portable Sanitary Facilities, furnish/service (Construction Logistics Support)	
02	Temporary Facility Power (Construction Logistics Support)	
03	Site Security	
04	Cleaning Service (Construction Logistics Support)	
05	Shuttle Van Service (Construction Logistics Support)	
06	Temporary Construction Area Signs, Detours, Traffic Staging (signs not covered by LAWA CALM)	
07	Quality Control Inspection and Laboratory Testing	
08	Environmental Monitoring	

09	Construction Staking	
10	Construction Utility Verification (Pot-holing)	
11	Traffic Control	
12	Tree Removal/Landscape Clearing	
13	Demolition	
14	Underground Utility Construction	
15	CIDH Pile Foundations - Large Diameter Piles	
16	CIDH Pile Foundations - Small Diameter Piles	
17	Reinforcing Steel	
18	Concrete Pumping	
19	Post-Tensioning	
20	Shot-crete (Ground Anchor/Soil Nail Walls)	
21	Precast Girders/Bridge Deck Panels - (Furnish and Erect)	
22	Drywells	
23	Electrical Construction - Roadway Lighting and Traffic Signals, ITS System Devices	
24	Crushing	
25	Asphalt Paving	
26	Minor Concrete (Curb/Gutter, Sidewalk Driveways)	
27	Roadway Striping and Markings	
28	Masonry (AOA & Soundwalls)	
29	Fencing and Architectural Railings	
30	Roadway Metal guard railings and crash attenuators	
31	Overhead Sign Structures	
32	Roadway and Wayfinding signs	
33	Painting & Anti-graffiti Coatings	
34	Landscape & Irrigation	
35	Structural Steel (Pedestrian Bridge)	
36	Fireproofing (Pedestrian Bridge)	
37	Metal Framing (Pedestrian Bridge)	
38	Glass & Glazing (Pedestrian Bridge)	
39	Mechanical/Plumbing (Pedestrian Bridge)	
40	Scaffolding/Temp Stair towers	
45	Insulation (Pedestrian Bridge)	
46	Roofing (Pedestrian Bridge)	
47	Elevator (Pedestrian Bridge)	
48	Door Frames & Hardware (Pedestrian Bridge)	
49	Waterline Chlorination	

3.0 Schedule for the Project Trades:

The schedule for the project trades will be developed in the Project Baseline Schedule (PBL). The PBL can be filtered to show the schedule for all Subcontractors, selected combinations, or any single subcontract scope activity.

4.0 Self-Perform Work:

In accordance with Contract requirements, SFJV will self-perform a minimum of 30% of the Construction Work on the project. SFJV's decision as to which portion of the construction work to self-perform will be based primarily on the overriding need to optimize best value for the project and control the critical path to deliver the project on schedule. SFJV will prepare and submit a bottom-up, detailed estimate for all scopes of work intended to be self-performed. SFJV will also provide support and close supervision over the work performed by subcontractors. **Table 4** below, shows a breakdown of self-perform work.

Table 4 – Self-perform Work

Self-Perform Item	Description:	ROM Estimate Cost:
01	Project Temporary Facilities Construction and Maintenance	
02	SWPPP BMP Installation and Maintenance	
03	Subcontractor Scope Support	
04	Roadway Earthwork and Grading	
05	Aggregate Base	
06	Structure Excavation	
07	Structure Backfill	
08	Storm Drain Construction	
09	Underground Utility Construction	
10	Bridge Drainage	
11	Structure Concrete - Bridge Structures	
12	Structure Concrete - Retaining Walls	
13	Structure Concrete - Major Drainage Structures (Reinforced Box Culvert)	
14	Structure Concrete - Pedestrian Bridge (vertical core)	
15	Roadway Concrete Barriers	
16	Bridge Concrete Barriers	

5.0 Early Enabling Work:

An "Early Works" cGMP package would likely allow SFJV to get started on setting up site logistics, staging yards, construct detours, utility relocations, and if permitting is achieved possibly start CIDH piles on some of the off-line, LAWA "private parcels".

6.0 GMP/CGMP Packages

SFJV developed the preliminary schedule and construction staging to meet the objectives of mitigating impacts to traffic congestion, minimizing throw-away temporary work, and expediting project completion. Our anticipated breakout of cGMPs is also based on this sequential phasing. Our six phases of construction staging are spread into three cGMPs as follows:

- cGMP 1: Early Work, mobilization and Phase 1
- cGMP 2: Main Construction Package, Construction Phases 2 through 4
- cGMP 3: Main Construction Package, Construction Phases 5 and 6

7.0 Buy American/Build America Requirement:

SFJV agrees to comply with the Buy American/Build America Federal Requirement provisions of the Contract. This requirement will flow down to all Subcontractors/Material Vendors, as well as agreements with parties at all lower tiers.

8.0 Permanent Material Procurement for Self-Perform Work:

SFJV will procure permanent materials needed for the self-perform work. The procurement of major Materials will follow a process to solicit quotes and evaluate vendors for a best value-based selection including DBE participation, Quality, Availability to meet schedule, and competitive pricing. Table * below show a list of anticipated materials needed for self-perform work.

Table 8 – Permanent Material for Self-perform Work

Permanent Material Item:	Description:	ROM Estimate Cost:
01	Ready Mix Concrete	
02	Sand Cement Slurry	
03	Bridge Bearing Pads	
04	Bridge Expansion Joints	
05	Bridge Drainage Materials (Deck pans, Pipe, & Hangers)	
06	Bridge Fabricated Metal, Siesmic Restrainer, Cover plates, Anchor Bolts	
07	Isolation Casings	
08	Isolation Casing Covers	
09	Storm Drain Pipe, Reinforced Concrete Pipe	
10	Storm Drain Pipe, HDPE	
11	Waterline Pipe, Ductile Iron	
12	Waterline Valves & Fittings, fire hydrants	
13	Drainage frames & grates, ladder rungs, protection bars	
14	Drainage Pipe & fittings for tie-in of bridge drains, retaining walls, and abutments	
15	Sewer manhole risers	
16	Sewer Pipe, VCP/PVC	

17	Manhole/Valve Covers, Cast Iron	
18	Pipe Trench Bedding Material	
19	Aggregate Base	
20	Select Backfill Material	
21	Fill Soil for Embankments	
22	Geocomposite Drain Material	

9.0 Procurement of Long-Lead Items:

Some materials will require longer lead times due to detailing, review of submittals/shop drawings, fabrication, and transportation. SFJV will advise LAWA and collaborate on opportunities to evaluate risks of starting early procurement on materials identified as long lead items. Potential Long lead items may include:

- Precast Concrete Bridge Girders
- Structural Steel for the Sepulveda Pedestrian Bridge
- ITS switchgear, cameras, scanners, and VMS Displays
- Storm Drain, Reinforced Concrete Pipe
- Waterline, Ductile Iron Pipe
- Overhead Sign Structures
- Bridge Joint Seals
- Bridge Bearings
- Aesthetic Treatment Formliners for Cast-in-place Concrete Structures
- Aesthetic Monument Fabrications
- Traffic Signal Controllers
- Traffic Signal and lighting electroliner/poles

10.0 Subcontractor Procurement Process (GC-9):

- SFJV approach to subcontractor and supplier selection and contracting procedures are intended to promote pricing or buyout of the Work in a fair and reasonable manner and to maintain the best value for LAWA's ATMP Project. As such, all Work, except for work scope and General Conditions services which are a part of the Design/Builder's self-performance packages will be procured based upon either Competitive Bids awarded to the most qualified bidder or through the use of a best value selection process following DBIA Progressive Design Build Best Practices, awarded to proposers providing the best value to LAWA as defined below. Design/Builder shall utilize mandatory inclusivity goals consistent with LAWA's inclusivity requirement programs as listed in the Contract Documents. SFJV will develop lists of prospective bidders or proposers to solicit bids or proposals for the designated Subcontract work packages.
- SFJV will conduct an outreach effort to attract broad interest among qualified firms. For Major Subcontract packages with estimated values of \$100,000 or greater, shall use three (3) different

publications and/or other industry standard outreach vehicles to advertise each work package and each work package shall be advertised for a minimum of two (2) weeks, unless otherwise specified by LAWA. SFJV will contact potential bidders or proposers to develop a sufficient pool of bidders. SFJV will maintain evidence of such outreach and will provide full transparency to LAWA.

- C. For specialty scope items requiring less common expertise, SFJV may use a prequalification process, and will provide subcontractor prequalification criteria to LAWA for review. Prequalification criteria will be relevant to inclusivity compliance, the character of the scope of work and potential schedule constraints. Prequalification criteria will be submitted in writing to LAWA for its review prior to use. LAWA will confirm that such prequalification criteria are fair and reasonable.
- D. SFJV requests for subcontractor proposals will be submitted to LAWA for review and approval. The requests for proposal shall include as a minimum, the following:
 - 1. Detailed scope of services
 - 2. Qualifications and experience of proposers
 - 3. Proposal content requirements
 - 4. Terms of the proposal
 - 5. Submission instruction
 - 6. Evaluation criteria
 - 7. All legal, administrative and contractual information and requirements
- E. SFJV will secure the commitment to bid or propose on each identified Subcontract work package from a minimum of three (3) firms for each trade depending on the approved packaging in the procurement plan, unless SFJV elects to self-perform that work as permitted herein. SFJV will invite LAWA in writing five (5) days prior to all pre-bid or pre-proposal conferences, outreach events, bid openings, proposal reviews and scope and selection interviews (if conducted) for each work package.
 - 1. Instructions to Bidders and Proposers in each work package shall be clear and precise and reviewed by LAWA before solicitation.
 - 2. SFJV will ensure that subcontractors understand that all items in the Instructions to Bidders and Instructions to Proposers must be submitted at the time the bid or proposal is due in the manner of the detailed format requested. If there are gaps in the itemized pricing list as requested but the grand total is shown as inclusive of these items, SFJV will have the subcontractor resubmit the itemized list, dated and initialed by the subcontractor.
 - 3. Subcontractors shall have an EMR (Experience Modification Rate/Rating) of less than 1.0 to qualify for award. In lieu of a EMR of less than 1.0, subcontractors may have an EMR between 1.00 and 1.25. LAWA may modify this requirement on a case specific basis.
- F. SFJV will flow-down the LAWA goal of exceeding the inclusivity DBE levels to each prospective subcontractor and vendor. For each CGMP SFJV will meet the inclusivity DBE levels of participation given by LAWA to SFJV for this Contract, unless otherwise specified by LAWA. SFJV will respond to requests for proposal and bid questions and issue addenda as necessary during the bid and proposal preparation periods and at the pre-bid or pre-proposal conferences and

walk-throughs. When needed, SFJV will consult with LAWA to address the questions and addenda.

- G. SFJV will require that bids be submitted on-line, with a uniform bid closing deadline for each bid package. In the event that SFJV obtains fewer than three bids or proposals, we will provide LAWA with a written justification of its efforts to obtain competition and, if it recommends that it should proceed to award the subcontract with fewer than three (3) bidders or proposers, the justification, therefore. No award will be made where there are fewer than three (3) bidders or proposers without LAWA's concurrence. Any sole source award will be issued consistent with LAWA's concurrence. Bid openings and proposal reviews are to be held with LAWA present.

J. Upon receipt of bids or proposals:

1. SFJV will record all bids or proposals received and provide recording sheets to LAWA staff during the bid opening or proposal review that include contractors budget/estimate for the work, the list of bidders or proposers, and any specific bid or proposal requirements that would deem a bidder or proposer non-responsive. SFJV may utilize a system that allows for electronic submission of bids or proposals, provided that said system allows for confidential submission of bids or proposals.

a. The bids will be tabulated in a pre-approved format which allows for comparison of each GMP budgeted line item for review by SFJV and LAWA. The report shall also indicate all bids received and compare the lowest responsible, responsive bids with the cost estimate for that work package. Bidders should be discouraged from including clarifications and assumptions as these items may render the bidder nonresponsive to the scope requirements.

b. For proposals, SFJV will provide a selection criterion scoring sheet, previously approved by LAWA, which tabulates the scores of the proposers. A report shall be generated by SFJV comparing the scores of each proposer, the cost element from each proposer and a comparison of the apparent selected subcontractor with the cost estimate for that work package. The report shall also include results of all pass/fail criteria.

2. SFJV will analyze the bid results and proposal pricing for potential errors, the spread of bid amounts or pricing components and review the apparent low bids and proposals for responsiveness, responsibility and compliance with the relevant work package. Scoping meetings with the subcontractors are allowed to determine if the bidders or proposers understood the scope of work; however, LAWA shall be present if such meeting takes place.

3. Responsibility is defined as a bidder or proposer that has demonstrated it understands the Scope of Work and has the attribute of trustworthiness, as well as quality, fitness, capacity, and experience to satisfactorily perform the applicable Work at LAX. For proposers, additional attributes may include expertise and experience of key personnel that will be assigned to the project, specific project experience and expertise with references and the quality of the proposer's submitted project approach and work plan.

4. All non-responsive and non-responsible bids shall be rejected, and the reasons therefore documented and provided to LAWA.

K. For work packages bid, award shall be made to proposer offering the best value to LAWA's Project. SFJV will notify LAWA in writing of the proposed selected subcontractor, prior to awarding any subcontract, for a quality assurance check.

L. The Design/Builder must allow time for the subcontractor approval process. Before making award to a subcontractor or material supplier, the Design/Builder shall obtain approval from LAWA. The approval will be documented by the established Concurrence, C-Letter process utilized in Pre-construction Phase.

M. All subcontracts will be between SFJV and the subcontractors or suppliers. Subcontracts shall be written to protect LAWA from impacts and claims arising from the work.

A copy of every subcontract shall be furnished to LAWA at least five (5) calendar days prior to execution of the subcontract by SFJV. SFJV will be responsible to LAWA for the acts and omissions of its agents and employees, suppliers, subcontractors performing work under a contract with the Design/Builder, and of its lower tier subcontractors, agents or employees. SFJV will include an appropriate cost in the GMP for the loss-pick of the risk for this responsibility.

N. SFJV will require each subcontractor of every tier to be bound to the terms of the Contract Documents, and to assume toward SFJV all applicable obligations and responsibilities which the SFJV, by these Documents, assumes toward LAWA. Said Contract shall preserve and protect the rights of LAWA under the Contract Documents with respect to the Work to be performed by the subcontractors that the subcontracting thereof will not prejudice such rights. SFJV will make available to each proposed subcontractor, prior to the execution of the subcontract, copies of the Contract Documents and SFJV's schedule, to which the subcontractor shall similarly make copies of such Contract Documents available to their subcontractors of every tier. Subcontractors also shall be provided access to all RFI's, Schedule Updates, and any other information that arises during the performance of the work. No subcontract or purchase order shall bind or purport to bind LAWA. Each subcontract or purchase order shall provide, without requiring the prior consent of the relevant subcontractor or supplier, for assignment and delegation of such subcontract or purchase order by SFJV to LAWA in the occurrence of a SFJV Event of Default.

O. SFJV will make no substitution for any subcontractor, person or entity previously selected without the prior written concurrence of LAWA.

P. If the buyout process occurs prior to cGMP, then savings and losses resulting from the purchase or buyout of the Work will be tracked separately from the Design/Builder Contingency through the use of a Subcontracts Buyout Fund (SBF). To the extent the SFJV experiences an aggregate loss from this fund in buyout of the Work; the SFJV may fund the loss from the Contractor Contingency with concurrence from LAWA. To the extent that SFJV experiences an aggregate savings to this fund in buyout of the Work; the amount may be transferred to an underfunded allowance or contractor contingency with the approval of LAWA.

Q. In accordance with DBIA Progress Design Build Best Practices, all remaining Work budget in the SFJV "Cost of Work", upon completion will be considered incentive compensation for bearing the potential risk of loss.

11.0 Insurance Requirements for Subcontractors:

Unless other insurance coverage options, such as a Contractor Controlled Insurance Program (CCIP) is approved by LAWA, SFJV will flow down the Contract insurance requirements to subcontractors and include all of its subcontractors as insured's under its policies or shall furnish separate certificates and endorsements for each subcontractor (excluding professional services). All coverage's for subcontractors shall be subject to all of the requirements stated herein unless otherwise agreed to in writing by Executive Director and approved as to form by the Office of the City Attorney.

12.0 Project Labor Agreement:

In accordance with Contract SC-5, All work under this contract is subject to the Los Angeles Department of Airports Construction Project Labor Agreement (PLA), as amended, and attached hereto. In addition, SFJV is signatory to collective bargaining agreements with several construction trade unions. SFJV will require all Subcontractors to comply with the terms of the PLA, however, the PLA shall not be construed as superseding California Labor Code Requirements nor any applicable Federal, State and Local laws.

13.0 Subcontractor Management During Execution of the Work:

SFJV will assign superintendents and field engineers to provide the required coordination and to ensure that subcontracted work meets the safety, quality and performance requirements in the contract documents and our subcontract agreement. Subcontractors will participate in the pencil-copy approach for monthly invoicing to LAWA. Once pencil-copies are agreed to, subcontractors will submit electronic invoices for payment. Invoices will be processed through our electronic platform OnBase. OnBase will be configured to release payments to subcontractors within seven days after SFJV receives progress payment from LAWA. Final payment and release of retention will follow the prime contract terms unless modified by a LAWA-approved deviation in the subcontract. See Appendix A for the sample Subcontract Agreement Form containing further information relevant to Subcontract Management.

14.0 Subcontractor Close-out:

SFJV will hold Subcontractors responsible for the close out requirements in Contract PR-27. Closeout procedures will be included with our Subcontractor pre-work coordination meetings so the required documentation and record documents are outlined before work starts. Record documents include:

- As-Builts
- BIM Models
- Warranties/Guarantees
- O&M Manuals
- Recommended Spare Parts & Tools List

15.0 Appendices:

- Appendix A, SFJV Sample Subcontract Agreement Form

Appendix A – Subcontract Sample

SUBCONTRACT

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

This agreement ("Agreement") is made and entered into on February 16, 2023, in Los Angeles, CA, by and between Skanska-Flatiron a Joint Venture, of 1995 Agua Mansa Road Riverside, CA 92502 ("Contractor") and FOR EXAMPLE USE ONLY, of 1955 Agua Mansa Riverside, CA, 92509 USA ("Subcontractor"). (Contractor and Subcontractor individually referred to as "Party" and collectively as "Parties.") Contractor has entered into or is about to enter into a written contract, TBD ("Prime Contract") with City of Los Angeles - Los Angeles World Airports (LAWA) ("Owner") to perform all labor and to furnish all materials and equipment for the construction of the LAWAAATMP ROADWAY IMPROVEMENTS ("Project" or "Prime Work"). Subcontractor shall furnish, install, and perform the work set forth in Exhibit A and in any Change Order as defined below ("Scope of Work" or "Work") in strict accordance with the terms and conditions in this Agreement. Contractor shall pay pursuant to the terms in Exhibit A ("Price") for full and complete performance of the Work and Subcontractor's duties and obligations set forth herein.

1. CONTRACT DOCUMENTS. The "Contract Documents" include (a) this Agreement, including all appendices, riders, Contractor-approved progress schedules, exhibits and other documents incorporated into in this Agreement and/or its Exhibits, either by reference or other means, and any amendments thereto (collectively, the "Agreement") and (b) the Prime Contract, including the Prime Contract's plans, drawings and specifications ("Plans") and all other documents incorporated into the Prime Contract, whether by reference or other means, and any amendments thereto (collectively, "Prime Contract") to the fullest extent that the Prime Contract applies to the Work. This Agreement and the Prime Contract, including the Plans, (all as compared to each other and within each individually) supplement one another and are complementary and cumulative in nature. What is called for by one shall be as binding as if called for by all.

1.1 Review of Contract Documents. Subcontractor has reviewed and is familiar with all Contract Documents related to its Scope of Work and has considered the scheduling requirements of Owner and Contractor and the availability and cost of labor, materials, tools, and equipment. Contractor is not liable to Subcontractor for any costs or delays that may arise from Subcontractor's failure to do so. Subcontractor represents that it has by its own independent investigation ascertained the Work required herein and the conditions associated therewith, it has verified all information furnished by Contractor or others satisfying itself as to the correctness and accuracy of that information. Any failure by Subcontractor to independently investigate and become fully informed shall not relieve Subcontractor from its responsibilities hereunder.

1.2 Discrepancies. Unless the Prime Contract requires a shorter time period, Subcontractor shall notify Contractor of any discrepancies, conflicts, or ambiguities in the Contract Documents ("Discrepancy") within five business days from the date which Subcontractor discovers or reasonably should have discovered the Discrepancy. Subcontractor waives any claim arising out of any Discrepancy if it fails to give timely notice of the Discrepancy. Subcontractor may not assert a claim for any Discrepancy that Subcontractor failed to discover but reasonably should have discovered with due diligence. If there are conflicting terms among this Agreement and the Prime Contract, the more stringent as applicable to the Work shall prevail and govern, whether administrative or substantive in nature. Any disagreement with respect to the interpretation of any such conflicting terms shall ultimately be decided by Contractor. Work performed by Subcontractor prior to resolving the Discrepancy shall be at Subcontractor's sole risk, cost, and expense.

SUBCONTRACT

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

2. **SCOPE OF WORK.** Subcontractor shall perform its Work continuously, expeditiously, and in a good and workmanlike manner. The Scope of Work described in Exhibit A includes all work, labor, tools, equipment, materials, cutting, patching, and services required to satisfactorily perform and to timely complete. The Work is not limited by any titles on drawings or headings in specifications, and the Parties intend that all items and services customarily performed and provided with the Work described in Exhibit A shall be performed by Subcontractor including all items and services consistent with, contemplated by, and reasonably inferable from, the Contract Documents and/or necessary to provide a complete and fully functioning Scope of Work, to produce the intended utility and appearance of the Work and to provide a neat and workmanlike fit with the remainder of the Prime Work, whether or not such items and services are specifically mentioned therein, unless specifically excluded in Exhibit A.

3. **SCHEDULE.** Subcontractor shall perform all Work in accordance with Contractor's schedule for the Prime Contract as it may be amended from time to time ("Schedule"). Subcontractor will comply with the Schedule and strictly observe Contractor's schedule obligations and all requirements applicable thereto as set forth in the Prime Contract.

3.1 **Subcontractor Scheduling Information.** Contractor may request Subcontractor to provide detailed information showing how Subcontractor will perform its Work to meet the requirements of the Schedule. Subcontractor and its lower-tiered subcontractors shall promptly furnish all scheduling information requested by Contractor from time to time and in such form and detail as requested for its Work, within five days of the request.

3.2 **Timely Prosecution of Work.** Time is of the essence for the performance of the Work. Subcontractor shall promptly begin and continuously, expeditiously, and diligently prosecute its Work in accordance with the Schedule. Subcontractor assumes the risk and has considered the practical and cost impacts of all foreseeable hindrances and delays to its Work upon entering into this Agreement. If Subcontractor delays any portion of the Project, Contractor may direct Subcontractor to increase its workforce, the number of shifts, the days of work, and to institute overtime operations to maintain the Schedule or to regain any time lost, all which shall be done by Subcontractor at Subcontractor's expense. Subcontractor shall promptly follow Contractor's direction notwithstanding any dispute whether Subcontractor is entitled to additional compensation and/or time therefor pursuant to this Agreement.

3.3 **Change to Schedule.** Contractor will make the Schedule available for Subcontractor's review and Subcontractor is obligated to keep itself informed of any changes to the Schedule that affect Subcontractor's Work. Subcontractor shall comply with any changes to the Schedule that affect its Work and will perform that Work in accordance with the requirements of the changed Schedule. Subcontractor's entitlement to additional time or compensation, if any, for changes to the Schedule will be determined in accordance with the terms of this Agreement.

3.4 **Owner Delays.** If Owner is responsible for any delay, disruption, suspension, stoppage, interference, compression, or acceleration that impacts Subcontractor's Work, Subcontractor will be entitled to additional time and compensation only if and to the extent that Owner grants Contractor additional time and compensation therefor and Contractor actually recovers compensation for such damages from Owner on account of such impacts to Subcontractor's Work.

3.5 **Other Delays.** Except as otherwise prohibited by law, Subcontractor shall have no claim against Contractor for damages associated with any delay, disruption, suspension, stoppage, interference, compression, or acceleration of Work, including losses of labor and equipment productivity associated therewith (collectively, "Delay Damages"), caused or directed by Contractor for any reason, and all such claims shall be fully compensated by the granting of a time extension. Where Delay

SUBCONTRACT

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Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

Damages are mandated by law, Subcontractor may get Delay Damages only for delays which are not concurrent with any (i) delays for which Subcontractor is not entitled to compensation pursuant to the Prime Contract or (ii) delays which were caused by or are the responsibility of Subcontractor, in whole or part. Furthermore, such Delay Damages shall include only : (a) increased wages attributable to work being performed by trades in a higher wage period; (b) increased field office expenses due to extended Schedule for the Work; (c) increased materials cost attributable to purchase materials in a higher price period; (d) increased cost to store materials, to the extent that the Subcontractor can demonstrate that such storage is specific to this Project; (e) increased cost of insurance and bonding due to extended Schedule for the Work; (f) with respect to rented equipment during the extended Schedule period, the lesser of the actual rental cost or the reasonable rental value for idled equipment on the Site; and (g) with respect to Subcontractor-owned heavy construction equipment idled during the extended Schedule period, the lesser of a reasonable rental cost or the cost of transportation to remove and return the equipment to the jobsite. Contractor will only pay Delay Damages as set forth above for amounts which are actually, reasonably, and necessarily incurred and verifiable by appropriate documentation and which Subcontractor could not have reasonably avoided.

4. PROSECUTION OF THE WORK. It is Subcontractor's responsibility to inspect the location of the Project, the area surrounding the Project, and the location where the Work will be performed (collectively, "Work Site") and take into account all visible and reasonably inferable geographic and climatic conditions. Subcontractor shall inform Contractor if the Work Site is not ready for the reception and installation of the Work. Contractor is not responsible for or liable for any costs, loss, or damages that may arise if Subcontractor commences its Work before the Work Site is ready. Subcontractor represents that it has inspected the Work Site and is familiar with local conditions under which the Work is to be performed, including potential congestion, restrictions upon transportation of material, equipment, and labor forces to and within the Work. Subcontractor's entitlement to additional time or compensation resulting from the Work Site conditions differing from what it anticipated is limited by Contractor's entitlement to an adjustment for such circumstances pursuant to the terms of the Prime Contract.

4.1 Preceding Work. Subcontractor shall inspect the preceding work of others upon and adjacent to its Work. Prior to commencing its Work, Subcontractor shall promptly notify Contractor of any observable defect or condition that Subcontractor knew or reasonably should have known existed, regardless of whether or not it impedes, interferes with, or otherwise impacts Subcontractor's Work. If Subcontractor does not provide any such notice, Subcontractor will be deemed to have accepted the conditions of such work and Contractor is not responsible for any costs, losses, or damages that may arise from such conditions.

4.2 Lines, Grades, and Layout. Prior to beginning its Work, Subcontractor shall establish all the lines, grades and levels that may be required to perform its Work properly. Subcontractor shall lay out and install its Work in such manner as not to delay or interfere with the Prime Work being or to be performed by others. All dimensions and elevations indicated on the Plans are to be field verified by Subcontractor, who must promptly, before proceeding with any Work, report any errors or discrepancies to Contractor. Subcontractor shall confirm the accuracy of any lines, grades, or levels that may be furnished by others, unless Contractor has directed Subcontractor in writing to rely upon them. If Subcontractor fails to correctly establish all the lines, grades and levels, or does not otherwise properly lay out its Work, Subcontractor shall alter, correct, or repair its Work as necessitated by such failure, all at Subcontractor's expense.

4.3 Inspection of Work. Owner and Contractor have the right to inspect all of Subcontractor's material and workmanship at any time and at any location. Subcontractor shall notify Contractor whenever any portion of its Work is ready for inspection.

SUBCONTRACT

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

4.4 Hazardous Materials. Subcontractor will comply with all environmental laws and regulations, and the Prime Contract regarding the proper notice, handling, transportation, treatment, removal and/or storage of hazardous wastes, substances or materials, or any substance which requires investigation or remediation.

4.5 Repair or Corrections to Work. Subcontractor will protect its Work from any damage and shall, at its own expense, fully safeguard and secure its Work. Subcontractor shall promptly repair and correct any nonconformance or defect in its Work and any Work rejected by Owner or Contractor. If Subcontractor fails to repair or correct any damage, nonconformity, or defect to its Work within three days of receipt of notice from Contractor, Contractor may make any repairs or corrections and deduct the reasonable cost thereof from any amounts due Subcontractor without limiting any other remedy or right Contractor may have. If Owner or Contractor elects to accept nonconforming Work rather than requiring its removal or correction, the Price shall be adjusted as necessary to equitably compensate Contractor for any charge by Owner arising out of Subcontractor's failure to strictly comply with the Contract Documents.

4.6 Taxes, Assessments, Permits, and Fees. Subcontractor will obtain, at its cost and expense, all permits, and approvals and licenses required to perform its Work. Subcontractor will pay all federal, state, and local taxes, assessments, and fees now or hereafter in effect, related to its Work without additional charge to Contractor. Subcontractor will comply with all filing and reporting requirements for any such taxes, assessments, and premiums relating to its Work.

4.7 Temporary Facilities. Subcontractor will furnish all temporary facilities needed for its Work. Common facilities to be provided by Contractor, if any, are only those set forth in Exhibit A.

5. SUBCONTRACTOR OBLIGATIONS AND THE PRIME CONTRACT. Subcontractor assumes to Contractor all of the obligations and responsibilities applicable to the performance of this Agreement which Contractor assumes toward Owner with respect to such performance pursuant to the Prime Contract. Subcontractor is bound to Contractor in the same manner and to the same extent that Contractor is bound to Owner under the Prime Contract. Where the Prime Contract or other Contract Documents refer to Contractor, and the work therein pertains to Subcontractor's Work, such Prime Contract or other Contract Documents shall be interpreted to apply to Subcontractor and the performance of its Work hereunder, rather than Contractor. Contractor shall have, without diminution of any further rights it may have and to the fullest extent permitted by law, all rights and remedies against Subcontractor respecting the performance of this Agreement that Owner has against Contractor respecting the performance of the Prime Contract and Subcontractor assumes all of the obligations imposed by the Prime Contract, including, without limitation: any exculpatory and indemnitory provisions; audit and access to documents; any duty, including any absolute duty, to protect the Work; any exclusions or limitations upon claims for damages for delay; any limitations of time, notice requirements, procedures or conditions precedent respecting claims or requests of any kind including requests for extension of time; Owner changes to the Work; variances between the actual site conditions (including subsurface conditions) and the conditions shown or indicated in the Contract Documents; conditions precedent for receipt of progress payments; liquidated damages; suspension of work; termination of the Prime Contract; any requirements to document, substantiate, or certify claims or requests of any kind; any warranties or guarantees including specific guarantee retainage provisions; and any dispute resolution provisions, including dispute review boards, arbitrations, forum, jurisdiction and venue provisions. Any time provisions imposed upon Contractor under the Prime Contract or by law shall be binding upon Subcontractor, provided however, that Subcontractor must in each case act towards Contractor within one half of the time provided therein for action by Contractor towards Owner, or such lesser time as is elsewhere herein provided, to afford Contractor reasonable opportunity to evaluate and timely act upon any claim, request or position asserted by Subcontractor. Subcontractor has had ample opportunity to and has examined and understands all Prime Contract provisions related to its Work and accepts the rights and obligations imposed thereunder. Subcontractor is responsible for all laws, regulations, and other provisions of the Prime Contract that are required to be flowed

SUBCONTRACT

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

down to subcontractors by operation of law or the Prime Contract. Without limiting in any way the generality of this section, Subcontractor is fully bound by all clauses set forth in Exhibit E.

5.1 Safety. Contractor may withhold Progress Payments from Subcontractor and/or terminate this Agreement for its failure or its lower-tiered subcontractors' failure to comply with all safety obligations set forth in Exhibit B.

5.2 Insurance. Subcontractor shall provide and maintain at Subcontractor's own expense the insurance coverage listed in Exhibit C for the work and/or services provided by this Agreement and as required by the Prime Contract. Contractor may withhold Progress Payments from Subcontractor for its failure to comply with all insurance obligations set forth on Exhibit C, including the failure to prove that Subcontractor and its lower-tiered subcontractors are maintaining the contractually-required insurance policies.

5.3 Bonds. Prior to commencing its Work, at its expense Subcontractor shall procure and furnish to Contractor separate performance and payment bonds with an A or better Best-Rated surety company that is acceptable to Contractor, each in the penal sum equal to the Price, and in the forms as attached to this Subcontract as Exhibit G. Contractor has the right to reject any bond that is not for the requisite penal sum or with an acceptable surety company. Contractor may terminate this Subcontract for default at any time if Subcontractor fails to maintain acceptable performance and payment bonds or other security pursuant to this section. If Subcontractor is unable to obtain performance and payment bonds as required, Subcontractor must provide some other form of performance and payment security (for example, letter of credit, parent guarantee, joint check arrangements, or similar form of security or any combination thereof), as applicable to Subcontractor's Work. Any security for performance and payment offered in lieu of a bond must be in a form acceptable to Contractor, in Contractor's sole discretion, and Subcontractor expressly acknowledges and agrees that the Contractor has the right to reject any security it does not consider adequate, in its sole discretion, or to require additional forms of security. Contractor may terminate this Subcontract for cause at any time if Subcontractor fails to provide performance and payment bonds or other security as required by this Section.

5.4 Contractor Direction. Subcontractor will promptly comply with all orders and directions given by Contractor, irrespective of any dispute and without awaiting a determination by any person, entity or tribunal with respect to any such dispute. Any dispute will be subject to the claims procedure in this Agreement.

5.5 Registration Numbers. Prior to commencing its Work, Subcontractor will furnish Contractor with its employer's registration number (including tax identification number and W-9, as applicable) assigned to it by the state and federal agencies having the authority to issue such registration numbers.

5.6 Certified Payroll Reports. Subcontractor will furnish Contractor with certified copies of Subcontractor's payroll in full compliance with the Prime Contract and any applicable federal, state, or local government agency law, regulation, or requirement. Subcontractor shall furnish such evidence and document the completeness and accuracy thereof as Contractor may from time to time reasonably request. Subject to any applicable laws, regulations, and requirements and the Prime Contract, Contractor may designate the officer or principal of Subcontractor required to certify the payroll.

5.7 Cooperation. Subcontractor must keep itself informed of the conditions of and relating to the Project so as to avoid any delay. Contractor may require that certain portions of the Project be accessible and/or used concurrently by

SUBCONTRACT

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

Subcontractor and others. Subcontractor will cooperate with Contractor, Owner, and other contractors and subcontractors employed on the Project.

5.8 Subcontractor Materials. Subcontractor will document the exact quantities and qualities of the materials and equipment purchased, used, or to be used by Subcontractor. Subcontractor is responsible for the receipt, delivery, unloading, storage, warehousing, protection, insurance, and risk of loss relating to any materials or equipment it is to furnish, install, provide, or have provided to it under this Agreement.

5.9 Contractor-Furnished Materials. If Contractor furnishes or causes others to furnish material or equipment to Subcontractor ("Contractor-Furnished Materials"), Subcontractor will inspect such materials at time of delivery and prior to use or installation by Subcontractor and notify Contractor, immediately and in writing, of any observable defects or non-conformity in Contractor-Furnished Material. Failure to notify Contractor shall be deemed an acknowledgement and acceptance that Contractor-Furnished Material complies with the Contract Documents and serves as a waiver of any claims regarding any alleged defect or non-conformity, other than latent defects not readily discoverable when such Contractor-Furnished Materials are delivered to Subcontractor.

5.10 Privity. Until the final acceptance of the Project, Subcontractor shall not perform any work directly for Owner, or any other contractor, or deal directly with any representatives of same, in connection with the Project, unless otherwise directed or permitted in writing in advance by Contractor. All work for this Project performed by Subcontractor shall be processed and handled exclusively under this Agreement.

5.11 Submittals. Subcontractor is responsible for all submittals that relate to its Work. Approval of Subcontractor's submittals by Owner and/or Contractor does not authorize Subcontractor to deviate or substitute from the Work required under the Contract Documents. Subcontractor shall correct any deviation or substitution at Contractor's direction, at any time and at Subcontractor's expense. Notwithstanding the foregoing, Contractor may demand that Subcontractor comply with any approved submittal without additional charge.

5.12 Warranties. Subcontractor expressly assumes towards Contractor all of the obligations and responsibilities that Contractor assumes toward the Owner with respect to maintaining, warranting, and guaranteeing its Work. Subcontractor shall perform all necessary and required maintenance, warranty, and guarantee work at its own expense. Subcontractor shall also be fully responsible: (1) to repair or replace any defective or improper work or material, (2) to repair or correct any damages caused thereby, and (3) to undertake at its cost and expense, the repair or replacement of such work, materials or equipment, which are found by the Owner to be unacceptable, unsatisfactory or otherwise not in accordance with the Contract Documents. The provisions of the Prime Contract regarding retention of amounts as guaranty for maintenance or repair of the Prime Work to be performed, if any, apply to this Agreement. Unless a greater period of time is provided for in the Prime Contract, by law, or otherwise Subcontractor warrants all of its Work to be free from defects for a period of one year from the date of Owner's acceptance of the Project.

5.13 Government Funding. If this Agreement arises under or is related to a government contract, grant, or other government funding, Subcontractor certifies and agrees as follows:

5.13.1 Subcontractor certifies that it is eligible to receive such contracts, grants or funds from the government entity. Subcontractor further certifies that neither it nor its principals or management employees have been convicted of any acts

SUBCONTRACT

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

which would render Subcontractor or any of its principals or management employees ineligible for receipt of a contract, grant, or funds from such government entity.

5.13.2 Subcontractor will comply with all laws and regulations applicable to any government contract, grant or funding. Subcontractor will comply with all registrations required and execute all government forms or documents, including Federal Government Form SF 1413 as required.

5.13.3 Contractor may terminate this Agreement for default if Subcontractor fails to comply with this section, or is or becomes ineligible to receive government contracts, grants, or other government funding.

5.14 Management and Supervision of Employees and Work. Subcontractor will furnish its best skill, judgment, qualified field supervision, and project management continuously throughout the performance of the Work. Subcontractor shall keep a competent person on the Project at all times who shall have full authority to carry out all of Contractor's instructions. Subcontractor shall immediately replace any workers objectionable to Contractor or Owner without additional charge.

5.15 Labor Harmony. Subcontractor shall conform to all labor policies of Contractor and Owner. Subcontractor shall not employ labor or means or use materials which may cause strikes or other labor disharmony, disputes or trouble with workmen employed by Contractor or other contractors, subcontractors or persons on any work. Whenever a labor dispute delays or threatens to delay the Work, Subcontractor shall immediately give written notice thereof to Contractor containing all information relevant to the dispute and Subcontractor will take all measures at its sole cost and expense to prevent labor disputes or any related disruption to the Project.

5.16 Affirmative Action. Subcontractor shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a), which prohibits discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity or national origin. Subcontractor shall also take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, protected veteran status or disability. Subcontractor shall maintain an affirmative action plan as required by Executive Order 11246, the Vocational Rehabilitation Act of 1973, the Vietnam Era Veterans' Readjustment Assistance Act of 1974, and any other applicable state or federal requirement.

5.17 Lower-Tier Subcontractors, Suppliers, and Vendors. Subject to Contractor's prior written approval, Subcontractor may employ lower-tiered subcontractors, suppliers, and vendors. Each lower-tiered agreement shall: (a) be in writing; (b) specifically incorporate the entirety of this Agreement by reference; (c) be accompanied by proof of insurance as Owner and Contractor may require; (d) provide that Contractor and Owner are intended third-party beneficiaries of the lower-tiered subcontract or purchase order (without liability for benefits received); (e) provide a consent to be joined in any dispute resolution procedure or proceeding involving Contractor, Owner, and Subcontractor; (f) consent that any such agreement may be assigned at Owner's or Contractor's option if this Agreement is terminated for any reason; and (g) flow down all obligations as required by the Prime Contract and this Agreement.

SUBCONTRACT

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

5.18 Code of Conduct. Subcontractor acknowledges receipt and review of Contractor's Supplier Code of Conduct, a copy of which is attached hereto as Exhibit D. Subcontractor and all of its employees, consultants, vendors and suppliers shall comply with the Supplier Code of Conduct in connection with all Work. This Section is a material term of this Agreement and Subcontractor's failure to comply with the Supplier Code of Conduct shall be grounds for termination for default.

5.19 Advertising. Subcontractor may not publish or advertise any description relating to the Project without first obtaining Contractor's written consent.

5.20 Protection of the Work. Subcontractor assumes to Contractor all duties and obligations which Contractor assumes to Owner under the Prime Contract and shall have primary responsibility and liability with respect to the protection of its Work. Subcontractor shall, at its own expense, fully protect, safeguard and secure its Work from injury or damage. Any damage caused to Subcontractor's work prior to final acceptance and payment for the Project shall be immediately rectified by Subcontractor at its sole expense, or, without limiting any other remedy or right it may have, Contractor may remedy the damage caused thereby and deduct the reasonable cost thereof from any amounts due or to become due Subcontractor.

6. DISADVANTAGED BUSINESS ENTERPRISE PROGRAM. Contractor is committed to maximizing opportunities for disadvantaged business enterprises, including but not limited to any business enterprise owned by socially and economically disadvantaged individuals who are afforded protection by 49 CFR Part 26 or similar state program. Subcontractor shall comply with the Disadvantage Enterprises Participation Requirements set forth in Exhibit H.

7. CHANGE ORDERS. Changes to this Agreement may only be made in accordance with this section. Without notice to or the consent of Subcontractor's surety, Contractor may at any time direct changes in Subcontractor's Work consisting of additions, deletions, reductions, or other revisions to the Scope of Work and/or Schedule ("Change Order"). This Agreement may only be changed by a Change Order signed by a vice-president or more senior corporate officer of Contractor on the form attached as Exhibit J. Work reflected in a Change Order is referenced hereinafter as "Change Order Work."

7.1 Owner Changes. A Change Order may arise from changes to the Work or Schedule initiated by or the responsibility of Owner or from other reasons set forth in the Prime Contract ("Owner Change"). If Subcontractor requests additional time or money due to an Owner Change, Subcontractor must submit its request in strict accordance with the terms of the Contract Documents. The provisions of the Prime Contract with respect to schedule adjustment, pricing, mark-up, overhead, approval, and performance of an Owner Change shall apply to this Agreement and are fully binding upon Subcontractor. Contractor is liable to Subcontractor for an Owner Change only to the same extent that Owner is liable to Contractor for Subcontractor's Change Order Work. Owner's decision regarding compensation and time resulting from an Owner Change is binding upon Subcontractor. If Subcontractor disputes Owner's decision, Subcontractor may pursue a claim as set forth below.

7.2 Other Changes. If Subcontractor requests additional time or money for anything other than an Owner Change, the Parties will negotiate in good faith a Change Order. Subcontractor shall timely and diligently perform its Work, including all Change Order Work, regardless of whether the Parties agree upon the change in the Price or Schedule. If the Parties fail to reach an agreement, Contractor may direct the Change Order Work to be performed on a time and material basis or Contractor may issue a unilateral Change Order in good faith, subject to Subcontractor's right to file a claim. In no event shall Subcontractor delay or suspend the Work due to any disputed Change Order. In the case of reduced or deleted Work resulting from a Change Order other than an Owner Change, the Parties shall negotiate the credit and any change to the Schedule in good faith.

SUBCONTRACT

Project: **LAWAATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

7.3 Documentation Required. With regard to any request for a Change Order, Subcontractor shall promptly provide to Contractor all documents or other information required by the Prime Contract or requested by Contractor to show how the increase or deduction was calculated or Schedule impacts.

7.4 Amendment to Schedule of Values. The Schedule of Values may be amended to reflect any Change Order. By submitting any request for a Change Order, Subcontractor authorizes Contractor to contact its suppliers of labor and materials to confirm the charges for labor, materials, or other items claimed by Subcontractor.

7.5 Time and Material Work. If Contractor directs Subcontractor to perform any Change Order Work that is not directed by Owner on a time and material basis ("T&M Work"), such T&M Work will be payable as set forth below:

7.5.1 Labor. Payment for labor shall include only the following:

- (a) Wages: Direct field labor only up to and including the rank of working foreman;
- (b) Payroll Taxes: Actual cost. In determining actual costs, the statutory limitations for FICA, State Unemployment Insurance, and Federal Unemployment Insurance must be taken into account (a journeyman's six-month taxable gross income may be used to estimate reasonable tax rates);
- (c) Union Benefits: Actual cost per union agreements;
- (d) Insurance: Actual net additional cost of insurance paid as a result of the T&M Work. In determining the actual cost of insurance, Contractor will be given the benefit of premium discounts, experience modifications, etc. There will be no reimbursement for flat rate policies such as auto insurance, etc.; and
- (e) Worker's Compensation: If required for the performance of T&M Work; shall be the insurance carrier's rate at the standard wage for all hours worked. Additional state modifiers may apply.

7.5.2 Equipment. Payment for equipment shall only be made upon the following conditions:

- (a) Subcontractor must submit and Contractor must approve, in writing and prior to beginning any T&M Work, the estimated working time and idle time and the value or rates of equipment to be used by Subcontractor. Contractor's approval, in advance and in writing, of the estimated working time and idle time of equipment and the value and rates is a condition precedent to payment by Contractor for equipment under this section.
- (b) Payment for equipment shall be limited to the value or rates of equipment used of the size and capacity actually required for the safe and proper performance of the T&M Work. If Subcontractor elects to use equipment of greater size, capacity, value or rental value, Contractor is only obligated to pay for equipment at the rate applicable for equipment actually required.
- (c) Rental charged for equipment owned by Subcontractor shall in no case exceed the monthly rates in the edition of the Rental Rate Blue Book current at the time the equipment is used on

SUBCONTRACT

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

the T&M Work, as published by Equipment Watch. Contractor and Subcontractor may agree to a different rate, in writing in advance. Where a piece of equipment used by Subcontractor is not listed in this publication, the rental rate shall be agreed upon by Contractor and Subcontractor prior to its use on the T&M Work.

- (d) Contractor will pay only the amount actually invoiced by the rental or leasing company for leased or rented equipment plus a reasonable amount for fuel costs, if not included in the rental or leasing company invoice.

7.5.3 Material and Installed Equipment. Subcontractor will be paid the actual net cost of material and installed equipment. Contractor will be given the benefit of trade discounts provided to Subcontractor and salvage value. Subcontractor must submit vendor's invoice or bill of sale and evidence of payment with its Payment Application that includes T&M Work. Subcontractor's payment for material and installed equipment is a condition precedent to payment by Contractor.

7.5.4 Overhead and Profit. Subcontractor may add up to 10% to the cost of labor, material, and installed equipment for T&M Work as overhead and profit (combined), except that no overhead and profit is allowed on any additional or premium costs related to acceleration, overtime, or other nonstandard labor cost. No overhead and profit may be added to any other costs allowed under this section or on work performed by lower-tiered subcontractors. "Overhead and profit" as used in this subsection includes all home office general and administrative expenses, field supervision including superintendents, timekeeping, engineering, drafting, field office expense, small tools, general purpose equipment, and any other costs not specifically enumerated herein.

7.5.5 Documentation. No later than noon the day after the T&M Work was performed, Subcontractor must deliver, to Contractor's Project Manager material backup invoices from lower-tiered subcontractors and a daily time ticket reflecting:

- (a) The date that the T&M Work was performed and a complete description of the T&M Work;
- (b) The number of hours spent on the Change Order Work by employee name and specific trade classification;
- (c) The number of hours that an individual piece of equipment was used, with a description of the equipment, including manufacturer, model number, capacity, etc.; and
- (d) The quantity and specific nature of each item of material consumed or incorporated into the Work, equipment installed for Change Order Work, and materials and equipment retrieved for salvage.

The Project Manager shall review and, if approved, sign and return the daily time ticket to Subcontractor. Contractor may deny payment for T&M Work if Subcontractor fails to strictly adhere to the requirements set forth in this section.

7.6 Unit Price Work. Where unit prices apply to Work under the Prime Contract and are stipulated in this Agreement, either expressly or through incorporation by reference, all Change Orders unless otherwise directed by Contractor shall be made in accordance with the unit price terms and conditions of the Prime Contract. Unit prices stipulated in this Agreement include all general and administrative expenses, overhead, profit, supervision, and all other direct and indirect expenses applicable

SUBCONTRACT

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

to the Unit Price Work. Where Unit Price Work is not required by the Prime Contract but is ordered by Contractor, the unit prices stipulated in this Agreement, either expressly or through incorporation by reference, shall be subject to an equitable adjustment based upon any increase in costs due solely to the variation above 125% of the estimated quantity or any decrease in costs due solely to the variation below 75% of the estimated quantity. Subcontractor must establish that (a) the actual unit cost of the adjustable units is greater or lesser than the actual unit cost of the base units and (b) the difference in actual unit cost is due solely to the overrun or underrun and not to any other cause.

7.6.1 Subcontractor shall give notice to Contractor, in advance, that it may exceed the stipulated quantities of any unit stipulated in this Agreement in performing its Work before Subcontractor exceeds 80% of the stipulated unit, or at least seven days in advance, whichever is earlier. Any increase in the stipulated quantities or unit price for any unit must be agreed to by Contractor and set forth in a Change Order prior to exceeding the stipulated quantities.

7.6.2 Failure to provide notice required in this subsection shall constitute a waiver by Subcontractor of its right to any equitable adjustment in the unit price. Any dispute regarding Unit Price Work is subject to the claims procedures in this Agreement.

7.6.3 If any Change Order was issued increasing the unit price based upon Subcontractor's notice and Subcontractor does not subsequently incur an increase in the stipulated quantities greater than 25%, Contractor is entitled to a credit to the Price equal to the increase in the Price resulting from the unit price increase in the Change Order.

8. **PAYMENT.** Payments shall be made in accordance with the Schedule of Values included in Exhibit A. Contractor may request a more detailed Schedule of Values prior to Subcontractor's submission of its first application for payment. The detailed Schedule of Values shall show all items making up the total amount of the Subcontract Price. Contractor will either accept the detailed Schedule of Values in writing or provide its comments to Subcontractor. Upon receipt of any such comments, Subcontractor will revise and resubmit its proposed schedule of values accordingly until accepted by Contractor in writing.

8.1 **Progress Payments.** See State Specific Terms.

8.2 **Final Payment.** See State Specific Terms.

8.3 **Disputes with Lower-Tiered Subcontractors.** In the event of any disputes between Subcontractor and its laborers, lower-tiered subcontractors, suppliers or others, Subcontractor may except same from such waivers and releases but shall furnish complete details as to the nature of such disputes, showing that Contractor is adequately indemnified against any loss emanating from such dispute.

8.4 **Pay Quantities and Daily Reports.** If required by Contractor or Owner, documents supporting Payment Applications, including pay quantities and daily reports, shall be turned in daily to Contractor. Any delay may delay progress payments or constitute a waiver of payment for that amount which has not been adequately or appropriately supported as required by Contractor or Owner.

SUBCONTRACT

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

8.5 Satisfaction of Subcontractor Obligations. No payment received by Subcontractor may be used for any purpose other than to pay monies owed by Subcontractor to persons furnishing labor, equipment, or materials used in performing the Work unless and until all Subcontractor's obligations to such persons have been fully satisfied or discharged. Any sums received by Subcontractor from Contractor shall be received in trust for payment to persons furnishing labor, equipment, or materials used in performing the Work and Subcontractor shall not be deemed to hold any right, title or interest therein absent a contractual or legal right to the contrary. Subcontractor is liable for any loss, cost, damage or expense, including legal expenses, incurred by Contractor by reason of Subcontractor's violation of this covenant.

8.6 Backcharges. If, in Contractor's good faith opinion, Contractor is subject to any actual or potential losses, including but not limited to damages, judgments, or expenses (including attorneys' fees), for which Contractor is entitled to reimbursement or indemnity from Subcontractor, Contractor may withhold from any payment to Subcontractor an amount sufficient to cover such loss. If the backcharge is not sufficient to cover Contractor's actual losses arising from Subcontractor's Work, Subcontractor shall pay Contractor the difference within ten days of Contractor's demand.

8.7 Liens, Claims, or Suits. If, at any time before Final Payment, there is a lien, claim, or any other type of encumbrance (collectively "Lien") filed against Subcontractor related to its Work, Contractor shall have the right to retain out of any payment due or which may become due to Subcontractor an amount sufficient to indemnify Contractor against any loss, cost or expense arising from any such Lien, including reasonable attorney's fees. Subcontractor shall cause any Lien to be discharged by payment, bonding, or otherwise within seven days of receipt of notice of the Lien or within the time periods required by the Prime Contract, whichever is shorter. If Subcontractor fails to discharge such Lien within seven days, Contractor may pay or otherwise discharge such Lien and withhold the costs incurred in doing so, including reasonable attorney's fees, from any amounts owed Subcontractor. The rights contained in this section are absolute and not dependent upon the ultimate validity of such Lien. Any amounts retained by Contractor pursuant to this section will be interest free and will not be released until the invalidity of any such Lien has been conclusively determined by a tribunal of competent jurisdiction, or has been properly paid and satisfied, and documents evidencing such disposition have been presented to Contractor.

8.8 No Acceptance of Work by Payment. Payments to Subcontractor do not constitute or imply acceptance of Subcontractor's Work or waive Contractor's rights or remedies it may have under this Subcontractor or in law. Payments to Subcontractor do not constitute a waiver by Contractor or Owner with regard to defects respecting any portion of Subcontractor's Work that are discovered after any Progress Payment or Final Payment to be non-conforming or defective for any reason.

9. INDEMNIFICATION. See State Specific Terms.

10. DEFAULT, TERMINATION AND SUSPENSION.

10.1 Default and Termination for Default. If Subcontractor materially breaches any term of this Agreement, Contractor may declare a default and/or terminate this Agreement or any part thereof for default, as determined by Contractor in its sole discretion. Contractor may also declare a default and/or terminate this Agreement for default, in whole or in part, if:

- (a) The Work, or any part thereof, is not commenced or prosecuted by Subcontractor in accordance with the Schedule and in sufficient time for Contractor to meet its schedule under the Prime Contract;
- (b) Subcontractor fails or refuses to comply with Contractor's written orders or directions;
- (c) Subcontractor delays or interferes with the work of Contractor under the Prime Contract;

SUBCONTRACT

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

- (d) Subcontractor fails to pay its subcontractors, laborers, materialmen, or others to whom it may be indebted when such debts become due;
- (e) Subcontractor fails to comply with the requirements of any federal, state, or local law, regulations, or other legal requirement, including the requirement to provide certified copies of payroll;
- (f) Subcontractor fails to furnish adequate assurances, as determined in Contractor's discretion, of its ability to duly and timely complete the Work; or
- (g) Any petition for Subcontractor's bankruptcy, or any other insolvency proceedings, is filed or commenced by or against Subcontractor; a receiver is appointed for Subcontractor; or Subcontractor makes an assignment for the benefit of its creditors.

10.1.1 Contractor will provide written notice of any default to Subcontractor. Except as otherwise provided by law, if Subcontractor does not cure the default within three days after receipt of notice of default, Contractor may declare a default and/or terminate this Agreement for default, in whole or part. Contractor's failure to provide notice of a default within a certain time period shall not waive its right to do so thereafter during any time such default continues to exist and shall not relieve Subcontractor of any of its obligations under this Agreement.

10.1.2 Upon a Subcontractor default and/or termination for default, Contractor may take over and complete any Work not completed by Subcontractor prior to the default and/or termination under this section ("Defaulted Work") or, at its option, employ others to complete the Defaulted Work. Contractor, or anyone employed on Contractor's behalf to complete the Defaulted Work, may use any major equipment or materials provided by Subcontractor until all Defaulted Work has been completed. After the Defaulted Work has been completed, Subcontractor may remove such equipment or materials that remain, but neither Contractor nor any person employed on Contractor's behalf to complete the Defaulted Work is liable for ordinary wear and tear. Subcontractor shall reimburse Contractor for all costs to complete the Defaulted Work, including the following: (a) the actual and necessary expense of completing the Defaulted Work (including all charges of any person employed to finish the Work); (b) attorneys' fees incurred by Contractor in exercising its rights under this section; (c) damages incurred by Contractor, Owner, or any other subcontractor or contractor working on the Project arising from Subcontractor's default; and (d) 10% of direct costs for overhead if Contractor completes the Work itself (items (a) through (d) hereinafter "Completion Costs").

10.1.3 If this Agreement is terminated for default, Subcontractor is not entitled to any further payment until all of the Defaulted Work is completed and Contractor has received payment in full therefor from Owner. If such Completion Costs plus all previous payments made to Subcontractor exceeds the Price, Subcontractor shall pay the difference to Contractor. Except to the extent prohibited by any applicable statute, Contractor shall have the right to set off against any other balances and/or obligations due or to become due to Subcontractor under any other subcontract(s) between Contractor or its affiliates and Subcontractor. This right of set off shall be deemed to be included and incorporated in every other subcontract between Contractor or its affiliates and Subcontractor as an amendment in writing thereto.

10.1.4 If this Agreement is terminated for default, in whole or part, and it is determined that such termination was improper or wrongful, the termination shall then be deemed to be a termination for convenience, but no pre-judgment or other interest shall apply in respect of any payment due Subcontractor thereunder.

10.2 Termination for Convenience. Contractor shall have the right in its sole discretion to terminate, in whole or in part, this Agreement for its own or Owner's convenience, for any reason and regardless of whether Subcontractor is in default.

SUBCONTRACT

Project: **LAWAATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

Contractor shall provide written notice of any termination for convenience to Subcontractor signed by an authorized representative of Contractor. Subcontractor must stop its Work immediately upon receipt of such notice. If this Agreement is terminated for Contractor's convenience, Contractor shall pay Subcontractor for that portion of the Work actually performed plus any costs for labor, subcontractors, or materials, reasonably and necessarily incurred by Subcontractor to comply with such termination ("Subcontractor Termination Costs") plus an amount equal to 5% of such Subcontractor Termination Costs for and in lieu of overhead and profit thereon. Contractor shall not be liable to Subcontractor for any other costs nor for prospective profits on Work not performed. If this Agreement is terminated for convenience as a result of an Owner termination of the Prime Contract for convenience, Subcontractor shall be entitled to payment in connection with such termination to the extent Owner pays Contractor in connection with same on behalf of Subcontractor.

10.3 Owner Termination in general. If the termination is due to any default or action by Owner, or as a result of court order or public authority, Contractor is not liable to Subcontractor for any sum greater than that which Contractor receives from Owner with respect to Subcontractor's performance, less any costs incurred by Contractor in obtaining that amount from Owner.

10.4 Suspension of Prime Work. If the Prime Contract is suspended in whole or in part by Owner, Contractor may similarly suspend Subcontractor's Work and Subcontractor's rights will be limited to such extension of the Substantial Completion Date by the same time as may be allowed to Contractor by Owner. Subcontractor shall not be entitled to any compensation from Contractor on account of such suspension, unless and only to the extent that Owner compensates Contractor for additional costs incurred by Subcontractor on account of such suspension.

10.5 Suspension of Subcontract Work. If deemed to be in the Project's best interest, Contractor may temporarily suspend the Work or any part thereof. Subcontractor's entitlement to additional time or compensation is subject to the applicable terms of this Agreement.

11. CLAIMS. The term "claim" as used throughout this Agreement means any request, demand, or claim for, extra or additional money, time, change or reduction of responsibility, the adjustment or interpretation of contract terms, or other relief arising under or relating to this Agreement.

11.1 Strict Compliance. Subcontractor's strict compliance with all provisions in this Claims section and the Prime Contract, if applicable, is a condition precedent to Subcontractor's filing of any litigation or claim relating to this Agreement. Subcontractor's failure to comply strictly with the terms of this section will constitute a waiver of any such claim and shall relieve Contractor of all responsibility to make any payments or provide any extension of time or any other relief to Subcontractor, or to present Subcontractor's claim to Owner or any other entity for any amounts claimed or other relief sought by Subcontractor. Contractor's consideration, acceptance, presentation, or prosecution of any claim shall not constitute a waiver by Contractor of Subcontractor's failure to strictly comply with this section.

11.2 Notice Requirements. Unless the Prime Contract imposes a shorter deadline, Subcontractor must submit to Contractor written notice ("Claim Notice") of any claim within 72 hours after the commencement of the event or condition which is the basis for a claim. The Claim Notice must include the amount of increase in the Price and/or the Schedule or any other relief sought and the specific reasons why Subcontractor is entitled to the relief. Each Claim Notice must be accompanied by all documentation that supports the claim. If Subcontractor incurs additional costs or delays, or the relief sought by Subcontractor

SUBCONTRACT

Project: **LAWAATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

otherwise changes after the Claim Notice seeking such relief has been submitted, Subcontractor must amend its Claim Notice and update the supporting documentation within 30 days of such change (or within such shorter period as may be required by the Prime Contract).

11.3 Owner Related Claims. If Subcontractor's claim is due, in whole or in part, to any act, omission, direction or order of Owner or its agents or claims for which the Subcontractor believes it is entitled pursuant to the terms of the Prime Contract ("Owner Related Claim"), Subcontractor's only recourse under this Subcontract is Contractor's presentation of the Owner Related Claim to Owner. Contractor's liability to Subcontractor on account of any Owner Related Claim shall be limited to the compensation or relief obtained from Owner for same, less any costs to Contractor to present such Owner Related Claim.

11.3.1 The procedure provided for in the Prime Contract for the submission, documentation and determination of claims shall govern Subcontractor's Owner Related Claim and the determination of Owner shall be final, conclusive, and binding upon Subcontractor. Contractor shall present Subcontractor's Owner Related Claim to Owner in a timely manner, either in its own name or in the name of Subcontractor only if Subcontractor strictly complies with this section, including but not limited to the following requirements:

- (a) Within the deadlines set forth in this Agreement, Subcontractor must submit its Owner Related Claim in strict compliance with the requirements of the Prime Contract for the submission of Contractor's claims to Owner;
- (b) Subcontractor must include with its Owner Related Claim all substantiation for all relief sought as is required in the Prime Contract and this Agreement, as well as any certification of Subcontractor that may be required by Owner; and
- (c) Subcontractor must certify that it has duly substantiated its Owner Related Claim and that such Owner Related Claim is truthful and accurate.

Contractor may refuse to present a Subcontractor's Owner Related Claim to Owner to the extent that Contractor reasonably determines that such claim is without merit, unsubstantiated, or lacks a good faith basis for assertion.

11.3.2 Subcontractor shall pay all costs, including legal fees, incurred by Contractor in the presentation of any Owner Related Claim, regardless of the outcome. Contractor may treat Subcontractor's failure to promptly pay such costs as a withdrawal of its Owner Related Claim. If Contractor's submission of Subcontractor's Owner Related Claim is combined with Contractor's claims or another subcontractor's claims, Subcontractor will pay its reasonable portion, as determined by Contractor, of the costs, including legal fees, incurred by Contractor in accordance with this subsection.

11.3.3 If a recovery or settlement from Owner does not expressly allocate an amount to Subcontractor's Owner Related Claim, the Parties shall endeavor to agree upon such allocation in good faith; however, if they are unable to so agree, the allocation of any recovery or settlement, expenses, and costs will be made by Contractor in good faith.

11.3.4 It is within Contractor's discretion whether to commence or, if commenced, to continue, any legal proceedings against Owner, including compromise or settlement of any such proceedings, relating to Subcontractor's Owner Related Claim, provided, however, that Contractor shall endeavor in good faith to keep Subcontractor informed and to consult with Subcontractor in advance of the commencement, discontinuance, or settlement of any such proceedings.

SUBCONTRACT

Project: **LAWAATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

11.4 Other Claims. Within 30 days after a Party sends notice to the other Party of any dispute other than an Owner Related Claim ("Dispute"), each Party shall designate a senior representative to engage in direct negotiation to resolve the Dispute. The senior representatives will meet in person, or if both Parties agree, via telephone, within 30 days of being so designated and will make a good faith attempt to resolve the Dispute. If the representatives cannot negotiate a resolution to the dispute, the Parties may submit the dispute for mediation administered by the American Arbitration Association under its Construction Industry Mediation Procedures. Each Party shall pay an equal share of the cost of the mediator and any AAA fees. The mediation will be held in the venue for litigation, unless otherwise agreed by both Parties. Mediation shall be a condition precedent to the initiation of any formal lawsuit in a court of competent jurisdiction. Any such lawsuit shall be initiated in a state or federal court of competent jurisdiction within the County and the State that the Project is located. However, should filing of such lawsuit be required to preserve a Party's rights hereunder, such filing shall be made and the matter stayed pending completion of mediation. Subcontractor waives any claim for special, incidental, consequential or penal damages for any Dispute, including, without limitation, any right to claims for loss of income, revenue, profit, interest or efficiency.

12. MISCELLANEOUS PROVISIONS.

12.1 Assignment. Subcontractor may not assign this Agreement, the Work or any part of either or both, or make any assignments of any money due or to become due to it hereunder, or give any orders to Contractor for payments to third parties, without the prior written consent of Contractor. Any such assignment without Contractor's prior written consent is void at Contractor's discretion. This Agreement is binding on and inures to the benefit of the permitted successors and assigns of the Parties. For the avoidance of doubt, transfers of equity in Subcontractor of greater than fifty percent (50%) are deemed to be prohibited assignments requiring the prior written consent of Contractor.

12.2 Inspection of Records. Contractor and Owner may audit all of Subcontractor's books, records, documents, schedules, bid estimates, and other data of Subcontractor relating to bidding, pricing or performance of this Agreement, any Change Order, or claim for any reason. This right is in addition to any other discovery or similar rights arising out of litigation, and is subject to specific enforcement and injunctive relief. Contractor may exercise this right for the same period of time that Owner may do so under the Prime Contract, but in no event shall such period of time be less than six years after Owner's acceptance of the Project.

12.3 Cumulative Rights and Remedies of Contractor. None of the rights and remedies granted to, conferred upon, or reserved by Contractor under this Agreement are exclusive or impose any limitations upon, or be in derogation of any right or remedy of Contractor now existing, or hereafter to exist, at law, in equity or by statute, or in the manner or time for the exercise thereof. Each and every right and remedy of Contractor under this Agreement is cumulative and in addition to all other rights and remedies of Contractor under this Agreement, now existing or hereafter to exist, at law, in equity, or by statute. Names or headings of Sections and the location of any clause shall not be construed so as to limit or restrict the purpose or intent thereof.

12.4 Owner Consent. Where the Prime Contract requires Owner approval of subcontractors, this Agreement shall be of no force or effect until Owner gives its consent and/or approval in writing to subcontracting the Work to Subcontractor unless Owner shall have waived such requirement. If this Agreement predates the Prime Contract, award of the Prime Contract to Contractor and full execution thereof is a condition precedent for either Party to enforce any rights or obligations in this Agreement.

12.5 Form and Manner of Notice. Where required by the terms of this Agreement, written notice may be either (a) by personal service or (b) by use of a recognized public overnight courier service, or Express United States mail. The written notice shall become effective upon receipt. Personal service may be delivered to the senior representative of the Party at the Project

SUBCONTRACT

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

site or to such person at the office address of the Party set forth in this Agreement. Service by mail, or overnight courier, shall be sent to the Party at its office address set forth herein.

12.6 No Oral Modification; No Third Party Rights. This Agreement constitutes the entire agreement and understanding between the Parties and supersedes all prior agreements and understandings, oral or written, relating to the subject matter hereof. This Agreement cannot be modified, nor any term or provision thereof waived, except by written instrument duly signed by the Parties or their successors in interest. Nothing in this Agreement shall be construed to create any rights of any kind in or for the benefit of any third-party.

12.7 Severability and Waiver. The invalidity of any term or provision of this Agreement, whether declared invalid by a court or otherwise, shall not affect the validity of any other term or provision hereof. The failure of Contractor to enforce any provision of this Agreement shall not constitute a waiver of the future enforcement of that provision and shall not constitute a waiver of the enforcement of any other provision.

12.8 Neutral Interpretation. This Agreement is deemed to have been jointly prepared by all Parties hereto and shall not be construed against any particular Party.

12.9 Governing Law. This Agreement shall be governed, construed, and enforced in accordance with the laws of the state of the state where the Project is located, without regard to its conflict of laws rules.

12.10 Sanctions. Subcontractor represents and warrants that it is not presently subject to any economic, humanitarian or political sanction, restrictive measure or similar adverse ruling or status determination issued by the United States Government (including those by the U.S. Dept. of the Treasury's Office of Foreign Assets Control (OFAC) and the U.S. Department of State), the United Nations Security Council and/or the European Union (collectively "Sanctions"). In the event Subcontractor hereafter becomes subject to Sanctions, it shall immediately notify Contractor of the circumstances surrounding same. Subcontractor's violation of the representation and warranty against Sanctions as of the date of this Agreement or it subsequently becoming subject to Sanctions shall constitute sufficient grounds for default and termination for cause hereunder, with the right to declare such default and termination being at the sole discretion of Contractor.

12.11 Anti-Corruption. Subcontractor represents and warrants that no payment, offer, gift, consideration or benefit of any kind that constitutes an illegal or corrupt practice has or will be made to anyone, either directly or indirectly, as an inducement or reward for the award, execution or subsequent modification of this Agreement or as an inducement or reward for anyone acting or forbearing action in connection with the administration of this Agreement. Furthermore, neither Subcontractor or its employees or agents shall do anything in the way of making any illegal or corrupt payment or conveyance of any benefit or any other thing of intrinsic monetary value to anyone (including, without limitation, employees or representatives of Contractor or any elected or appointed public officials or other persons charged with a public duty in connection with the administration or performance of the Prime Contract). Any violation of this provision shall be a material breach of this Agreement.

12.12 Counterparts. This Agreement may be executed and delivered electronically (including by email or facsimile transmission) in one or more counterparts, each of which when executed and delivered shall be deemed to be an original, but all of which taken together shall constitute one and the same instrument.

SUBCONTRACT

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

13. **EXHIBITS.** All terms, conditions, obligations, and documents incorporated by reference in the following exhibits are incorporated into this Agreement:

State Specific Terms for use in the State of CA

Exhibit A - Scope of Work and Price

Exhibit B - Safety

Exhibit C - Insurance Requirements

Exhibit D - Code of Conduct

Exhibit E - Certain Prime Contract Clauses

Exhibit F - Payment Waiver and Release

Exhibit G - Payment and Performance Bonds

Exhibit H - DBE Participation Requirements

Exhibit J - Change Order Form

Exhibit L - Federal Requirements

Exhibit L-1 - Federal Requirements - ATMP Roadway Improvements Project

Exhibit M-1 - PLA - ATMP Roadway Improvements Project

Exhibit N - Subcontractor Quality Control

<SIGNATURE PAGE FOLLOWS>

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

CONTRACTOR:
SKANSKA-FLATIRON A JOINT VENTURE

BY: _____

DATE: _____

NAME: _____

TITLE: _____

SUBCONTRACTOR:
FOR EXAMPLE USE ONLY

BY: _____

DATE: _____

NAME: _____

TITLE: _____

State Specific Terms

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: 90009220.SAMPLE2

STATE SPECIFIC PROVISIONS for CA

California Subcontract Provisions:

8.1 Progress Payments. Contractor shall pay the Price, less retainage in the same percentage as may be retained by Owner, through progress payments made pursuant to the Schedule of Values in Exhibit A. Subcontractor shall submit its application for progress payments ("Payment Application") in a form as directed by Contractor. Payment Applications must be submitted monthly, no later than three business days following the last day of Owner's current monthly pay period.

8.1.1 Payment Applications may be submitted only in conformance with the Schedule of Values, and only for that portion of Work that has been completed. Payment Applications shall be submitted to (a) Contractor's jobsite project office and (b) Contractor's Accounts Payable either by email electronically to US-Civil-invoices@skanska.com or via U.S. mail addressed to the attention of the Accounting Department at 1995 Agua Mansa Road, Riverside, CA 92509, unless otherwise directed in writing by Contractor. Each Payment Application shall include this Agreement Number on the face thereof. If approved in advance by Owner, Payment Applications may include requisitions for materials and equipment not incorporated in Subcontractor's Work but delivered and suitably stored at the site or at some other location, subject to further terms and conditions precedent as directed by Owner and Contractor. The risk of loss for such materials at all times shall remain on Subcontractor. If requested by Contractor, the application shall be accompanied by a forecast of next month's expected payment application.

8.1.2 Along with its Progress Payment Application, Subcontractor shall provide Contractor with all documentation necessary to substantiate payment as may be requested by Contractor or Owner, including: (a) an original executed unconditional waiver and release upon progress payment, certifying payment for all labor performed and materials furnished as of the last day of the preceding Payment Application period, in the form attached as Exhibit F; (b) an original executed conditional waiver and release upon progress payment, certifying payment for all labor performed and materials furnished as of the last day of the current Payment Application period, in the form attached as Exhibit F; and (c) an original unconditional and conditional waivers and releases, on the appropriate forms identified above, executed by all of Subcontractor's suppliers, vendors, materialmen, sub-subcontractors or others, including union benefit funds, furnishing labor or materials in connection with the Project. If required by Contractor, pay quantities and daily reports shall be turned in daily to Contractor's Project Engineer. Failure to do so may delay payment. Subcontractor's failure to timely submit its Progress Payment Waiver and Release, its Monthly Incident Summary Report, any EEO, MBE, WBE and similar reporting requirements of the Contract Documents required by Owner, or any other submission required by the Contract Documents for payment or this agreement may cause a delay in payment.

8.1.3 Unless Exhibit A, the Prime Contract, or governing law requires a different time, payment to Subcontractor shall be made no later than 30 days after Contractor receives both the approved and complete Payment Application and its payment from Owner for the portion of Subcontractor's Work for which Subcontractor has submitted a Payment Application.

8.1.4 If permitted by law, payment from Owner to Contractor is an express condition precedent to Subcontractor's entitlement to payment for its Work. Subcontractor is not entitled to any payment for any Work that is

State Specific Terms

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

rejected by Owner or Contractor, or for any Work for which Owner withholds any payment to Contractor. Subcontractor and Contractor acknowledge that there is a risk that the Owner may breach of the Prime Contract by making late payments or failing to pay Contractor. The Parties will share the credit risk of Owner and the risk of non-payment by Owner in proportion to their entitlement to payments due for their respective work, together with that of all subcontractors on the Project. Where applicable law does not allow for the Owner's prior payment to Contractor to serve as a condition precedent, then Subcontractor shall wait a reasonable period of time to receive payment so as to afford Contractor the opportunity to seek and obtain payment from Owner. Subcontractor is not entitled to receive payment which Contractor has not received from Owner for Subcontractor's Work until the expiration of such reasonable period of time.

8.2 Final Payment. Subcontractor shall submit a Final Payment Application promptly after Owner's final approval and acceptance of all of Subcontractor's Work.

8.2.1 Along with its Final Payment Application, Subcontractor shall provide Contractor with all documentation necessary to substantiate payment as may be requested by Contractor or Owner, including: (a) all required close-out obligations and documents for all Work required by the Contract Documents; (b) if Subcontractor furnished a payment or performance bond, the written consent of Subcontractor's surety(ies) to Contractor's release of Final Payment to Subcontractor; (c) an original executed conditional waiver and release upon final payment certifying payment for all labor and materials furnished as of the last day of Subcontractor's Work, in the form attached as Exhibit F; and (d) Unconditional waivers and releases upon final payment, in the form attached as Exhibit F, originally executed by all of Subcontractor's suppliers, vendors, materialmen, sub-subcontractors or others, including union benefit funds, furnishing labor or materials in connection with the Project.

8.2.2 Unless the Prime Contract or governing law requires a different time, Final Payment to Subcontractor will be made no later than 90 days after Contractor receives its payment from Owner for Subcontractor's Work. If permitted by law, the following are conditions precedent to Subcontractor's entitlement to receive final payment: (a) Owner's acceptance of Subcontractor's Work; (b) payment by Owner to Contractor for Subcontractor's Work, unless the Owner's failure to make such payment is for reasons unrelated to Subcontractor's Work or its failure to satisfy obligations under this Agreement; and (c) Contractor's receipt of all required close-out documentation required by the Contract Documents. To the extent applicable law does not permit the making of Final Payment by Owner to Contractor to serve as a condition precedent, Subcontractor shall wait a reasonable period of time to receive Final Payment so as to afford Contractor the opportunity to seek and obtain same from Owner. Subcontractor is not entitled to receive Final Payment which Contractor has not received from Owner for Subcontractor's Work until the expiration of such reasonable period of time.

9. INDEMNIFICATION. To the fullest extent permitted by law, Subcontractor agrees to fully defend, indemnify, and hold harmless Contractor (including its officers, directors, agents, servants, employees and affiliated and related corporate entities), Contractor's surety, and Owner, as well as each and every party and/or person which Contractor is contractually or legally required to defend and/or indemnify (collectively "Indemnitees" and individually the "Indemnatee"), from and against any and all claims, demands, losses, damages, liens, stop payment notices, penalties, costs, expenses, and/or liabilities arising out of, pertaining to, or relating to (a) Subcontractor's Work and/or contractual obligations whether performed by Subcontractor and/or anyone acting through or on its behalf, (b) materials and services provided by Subcontractor and/or anyone acting through or on its behalf, (c)

State Specific Terms

Project: **LAWAATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

the performance or failure to perform the Work by Subcontractor and/or anyone acting through or on its behalf, and/or (d) violation or infringement of any patent and/or intellectual property rights by Subcontractor and/or anyone acting through or on its behalf (collectively "Indemnified Claims" and individually "Indemnified Claim"). This duty to defend, indemnify, and hold harmless is without regard to any negligence or fault by Subcontractor and/or anyone acting through or on its behalf. Having fully considered its options at law, Subcontractor elects to proceed under Civil Code section 2782.05, subdivision (e)(2) with respect to its duty to defend. Upon final resolution of any such Indemnified Claim, any reallocation of defense fees and costs shall be governed by section 2782.05 of the Civil Code and the Claims provisions of this Subcontract.

9.1 Scope. In no event shall Subcontractor's obligations hereunder be construed to require indemnity or defense to a greater extent than permissible under the statutes or public policy of the State of California. Subcontractor has no duty to defend and indemnify Contractor (including its officers, directors, agents, servants, employees and affiliated and related corporate entities) or its surety to the extent that any Indemnified Claim (a) arises out of the sole or active negligence or willful misconduct of Contractor, its agents, servants and/or other independent contractors, (b) arises out of defects in design furnished by the Contractor, its agents, servants and/or other independent contractors, or (c) does not arise out of the Subcontract Work, whether performed by Subcontractor and/or anyone acting through or on behalf of Subcontractor. Subcontractor agrees to defend and indemnify Owner, as well as each and every party and/or person which Contractor is contractually or legally required to defend and/or indemnify, to the same extent that Contractor is required to do so. Subcontractor agrees to ensure that all of its lower-tiered subcontractors are obligated to fully indemnify, defend, and hold harmless all Indemnitees to the same extent that Subcontractor is obligated hereunder. Subcontractor's obligations hereunder shall not be limited by the provisions of any worker's compensation laws or by the existence of any insurance.

EXHIBIT A

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

SCOPE OF WORK AND PRICE

The Work shall include, but not be limited to **providing all work, labor, tools, equipment, materials and services to timely perform and complete the work required by the Contract Documents** with respect to the following:

Scope of Work:

Schedule of Values:

COST CODE	DESCRIPTION	QTY	UM	Unit Price	TOTAL
TOTAL:					\$200,000.00
PRICE: Two Hundred Thousand Dollars					

THIS IS A LUMP SUM / UNIT PRICE CONTRACT NOT TO EXCEED \$200,000.00 ("Price"), WITHOUT AN EXECUTED CHANGE ORDER.

SPECIFICATIONS AND DRAWINGS:

The Work shall be performed in accordance with the Contract Documents, including but not limited to the following Contract Specifications and Drawings, as may be amended:

Specifications pertaining to all Work on the Project (as applicable):

1. Owner's RFP and all addenda thereto
2. Standard Specifications
3. Design-Build Specifications (dated)

Specifications pertaining to Subcontractor's Scope:

JOBSITE LISTS SPEC SECTIONS THAT APPLY TO SCOPE

Drawings pertaining to Subcontractor's Scope:

JOBSITE LISTS DRAWINGS THAT APPLY TO SCOPE

Designer of Record signed and sealed Plans accepted by Owner

PAYMENT TERMS:

EXHIBIT A

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

JOBSITE INSERTS if different payment terms *include payment breakdown if lump sum*

RETAINAGE: DO NOT DELETE THIS SECTION.

If not applicable, list as N/A.

If applicable, JOBSITE inserts retainage requirements

BOND TERMS: DO NOT DELETE THIS SECTION.

If not applicable, list as N/A.

If applicable, JOBSITE INSERTS by confirming bond % with Sub:

Subcontractor shall provide Performance and Payment Bonds for the value of this Agreement, as it may be amended. Contractor will reimburse to Subcontractor the actual costs for providing the bonds up to _____%, provided Subcontractor has furnished Contractor with bonds acceptable to Contractor and a copy of the paid receipt therefor.

SALES TAX:

Sales tax is included in the Contract Price, and Subcontractor is responsible for remitting all applicable sales tax to the appropriate taxing authorities.

SCHEDULE:

JOBSITE INSERTS specifics as required, including start date and completion date. If start date is unknown, insert what prompts the start date (such as notice from Contractor, receipt of a Material Release form from Contractor, etc.) and the required duration of the Work.

DBE PROGRAM AND OJT REQUIREMENTS:

1. If applicable, Subcontractor's DBE/SBE Program shall meet or exceed the following:
DBE participation: 10%. Non-DBE Small Business participation: 3%

GENERAL REQUIREMENTS:

1. Quantities may increase or decrease at Contractor's option. There shall be no escalation in any unit price in the event of a change of quantities.
2. Unit prices are firm and fixed for the duration of the Project.
3. Subcontractor is required to submit certified payroll reports weekly, if required by law or the Contract Documents, and is responsible for submittal of same from its lower tier subcontractors.
4. Subcontractor shall submit a work execution plan at least two (2) weeks prior to mobilization, for review and approval by Contractor, detailing all aspects of Work including but not limited to labor, equipment, materials, safety and schedule. Work plan will be reviewed for completeness by Contractor prior to commencing Work.
5. No Work shall commence until Work plans, quality control and safety procedures have been established, notifications made to and accepted by the Contractor's representative and appropriate quality control meetings have taken place.
6. Subcontractor employees shall attend a site specific safety orientation prior to beginning Work on site.
7. Subcontractor shall perform a daily "Pre-task" planning meeting with crews performing the Work. The meeting will review the day's planned activities and will identify the hazards associated with the Work and the mitigating measures that will be implemented to address the hazards. The meeting will be documented and signed by all attendees and turned in to the Contractor's field office daily.
8. Subcontractor shall attend all coordination meetings and Owner-requested workshops with appropriate personnel when specifically requested by Contractor.
9. Subcontractor shall make, and pay for, necessary off-site storage arrangements as required in addition to any Contractor provided laydown area if provided.

EXHIBIT A

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

10. Submittals: At a minimum Subcontractor shall prepare and make submittals to Contractor for approval as required by the specifications incorporated into the scope of work above. Contractor reserves the right to require Subcontractor to make additional submittals as it deems necessary to progress the Work.

PROJECT SITE SPECIFIC REQUIREMENTS:

1. All Project rules and regulations included in this Agreement or posted at the Project site must be strictly followed.
2. Delivery personnel shall abide by all traffic signs and regulations while on the Project site.
3. Solicitation of any kind will not be permitted on the jobsite.
4. Drivers and operators for deliveries shall remain in the truck and only leave the truck as directed by Contractor's authorized representative for unloading. If drivers or operators are required to exit the truck, proper Personal Protective Equipment (PPE) must be worn at all times while outside the truck. PPE, at a minimum shall include; hard hat, OSHA approved safety glasses, boots, long pants and gloves. Any truck backed up on site shall have a spotter(s) to flag. All spotters required for Subcontractor's trucks shall be provided by Subcontractor.
5. Prior to shipment, Subcontractor will provide a letter detailing any special handling and all short term and long term storage requirements necessary to preserve the warranty and to protect the material and/or equipment. Subcontractor shall include with this letter the detailed bill of materials to be shipped and received.
6. Subcontractor must park in Contractor designated areas. Any required busing will be the responsibility of the Subcontractor. Proof of insurance shall be provided for non-Contractor vehicles located or used on site.

EXHIBIT B

Project: LAWA ATMP ROADWAY IMPROVEMENTS
Project Number: 90009220
Subcontractor: FOR EXAMPLE USE ONLY

Skaanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

SAFETY

GENERAL RESPONSIBILITY

SUBCONTRACTOR is obligated to provide a safe and healthful working environment for its employees and any other persons exposed to its work.

SUBCONTRACTOR is obligated to comply with all applicable environmental, health and safety requirements of the CONTRACTOR and owner; as well as all laws, codes, ordinances, rules, regulations and lawful orders of all public authorities as they pertain to the SUBCONTRACTOR's work.

TRANSPORTATION AND ENVIRONMENTAL COMPLIANCE:

If a SUBCONTRACTOR's work activities involve transportation or shipping of hazardous materials, as defined by the Department of Transportation, or if the work requires Environmental Controls for spills/releases, SUBCONTRACTOR will appoint a designee to provide compliance support. In the event of an incident/release, the designee will coordinate all response activities for the SUBCONTRACTOR. The designee will also notify the insurance carriers and HAZMAT of any incidents/releases.

SUBCONTRACTOR will submit copies of Material Safety Data Sheets (MSDS) for all listed hazardous materials it intends to bring on-site, prior to their arrival. When requested, SUBCONTRACTOR will provide training to CONTRACTOR'S employees and other parties who may be routinely exposed to these materials, at no cost to CONTRACTOR.

REQUIREMENTS PERTAINING TO WORK AT CONTRACTOR FACILITIES AND ON-PROJECT ACTIVITIES

The following shall apply to SUBCONTRACTORS of all tiers, providing ON-PROJECT or CONTRACTOR FACILITY construction, renovation and services at no additional cost to the CONTRACTOR. If the requirements set forth in this agreement conflict with any of the following; Prime Contract, SHEMS, or other applicable safety documents, the most stringent standards will apply. Weekly Safety meetings shall be conducted specific to hazard exposure in each phase of work. In addition, Daily Foreman Safety meeting will be held at the project office/site 30 minutes prior to the start of each shift; attendance at this meeting is mandatory.

Full compliance with the CONTRACTOR's safety program (SHEMS) including required drug testing. A copy will be available for review and distribution at the CONTRACTOR's field or area office(s).

A SUBCONTRACTOR's safety record, procedures and relevant exceptions are to be made available to CONTRACTOR for review, as requested. SUBCONTRACTORS that do not meet the following maximum limits must provide an acceptable explanation of their current deficiencies and proposed efforts to ensure an acceptable safety performance in the future. Exceptions are acceptable at CONTRACTOR's discretion.

- Experience Modification Rate = 1.25 (interstate or intrastate as applicable)
Note: EMR is not applicable to Joint Venture organizations but EMR of parent companies may be requested for review.
- OSHA Recordable Incidence Rate (for the most recent calendar year)= 3.5
- Lost workday Rate = 1.0 (for the most recent calendar year).

EXHIBIT B

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

- Company and/or its corporate officials may not be listed on the EPA Criminal Enforcement Docket.

SAFETY VIOLATIONS:

SUBCONTRACTOR must promptly correct any violation of safety protocol within their area of responsibility. CONTRACTOR will notify SUBCONTRACTOR if an apparent violation is observed.

If notified of any non-compliance, SUBCONTRACTOR will take immediate action and make all reasonable efforts to correct the unsafe or unhealthy condition(s) or act(s) within a reasonable time. If SUBCONTRACTOR refuses to take corrective action, CONTRACTOR will initiate one or more of the appropriate actions, in accordance with the subcontract provisions:

- A. Cease the operation or a portion thereof (particularly in the case of an imminent danger).
- B. Correct the situation and back charge SUBCONTRACTOR.
- C. Stop or delay payment for the work being performed.
- D. Invoke subcontract penalties and/or terminate the subcontract.
- E. Order the permanent or temporary removal of personnel from the project.

In the event SUBCONTRACTOR fails to comply with the project safety and health regulations and/or fails to correct identified hazards, CONTRACTOR may, without prejudice to any other legal or contractual rights of CONTRACTOR, issue a stop work order and/or the removal of personnel from the project. A start order to resume work will be issued, at the discretion of CONTRACTOR. SUBCONTRACTOR will not file a claim(s) for time-extension or additional compensation by reason of, or in connection with, such action on behalf of the CONTRACTOR.

If safety protocol is violated, SUBCONTRACTOR will enforce uniform disciplinary action to the appropriate party. The enforced action will be consistent with the Owner and/or CONTRACTOR's safety policy. CONTRACTOR may order the immediate, permanent or temporary, removal of any individual(s) from the project site if they violate safety protocol. CONTRACTOR may order the immediate removal of any individual in a supervisory position, who fails to take prompt, corrective action when notified of non-compliance with safety requirements.

REQUIREMENTS PERTAINING TO ON-PROJECT ACTIVITIES

The following shall apply to SUBCONTRACTORS of all tiers, providing ON-PROJECT construction, renovation and services. If the requirements set forth in this agreement conflict with any of the following; Prime Contract, SHEMS, or other applicable safety documents, the most stringent standards will apply.

SUBCONTRACTORS of all tiers are responsible for the development, implementation, administration and enforcement of their individual environmental, health and safety programs. SUBCONTRACTOR will ensure that all requirements are passed on to its SUBCONTRACTORS to include but not limited to: CONSTRUCTION WORK PLANS (CWP); PERSONAL PROTECTIVE EQUIPMENT (PPE) AND DRESS REQUIREMENTS and SUBSTANCE ABUSE PREVENTION PROGRAM.

Prior to the commencement of each activity, SUBCONTRACTORS shall provide a copy of their Construction Work Plans (CWPs) utilizing the Skanska template, to include task-specific activities and associated competent persons. The Construction Work Plans will be created, monitored and readjusted in Skanska's "PlanIt" software package. The full details and requirements for said CWPs is located in the project specific EHS Manual. The Subcontractor has included providing the required computers and/or mobile devices (iOS or Android based) to Subcontractors staff dedicated to the project site.

EXHIBIT B

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

EMPLOYEE ORIENTATION AND TRAINING:

Employees of SUBCONTRACTORS of all tiers, upon their first day of employment or initial entrance onto the project site, are required to attend a CONTRACTOR Project Safety Orientation. SUBCONTRACTOR is responsible for all costs associated with employee training. CONTRACTOR will provide SUBCONTRACTOR with copies of the site specific orientation materials. This orientation program will include:

SUBCONTRACTOR project supervisory personnel at the Foreman level and above are required to complete an OSHA 30 hour Construction Safety Training Class. Authorized documentation of completion must be provided to CONTRACTOR within 60 calendar days of attending CONTRACTOR's Project Orientation. Failure to comply will result in removal of the individual(s) from the project. Documentation must be dated within 12 months prior to the CONTRACTOR's Project Orientation.

SUBCONTRACTOR, at its own expense, will provide safety training for its employees and the employees of its lower tiered SUBCONTRACTORS. Such training will be documented, with copies provided to CONTRACTOR as requested. Safety training will include:

1. Orientation of safety policies stipulated by the SUBCONTRACTOR prior to each employee's initial work assignment on the project.
2. Supervisor orientation to safety policies and their responsibility to enforce them.
3. Daily "Toolbox Talks" on an appropriate safety subject, for all employees.
4. Hazardous materials training (HAZCOM).
5. Personal protective equipment
6. Personal safe work practices
7. Special safety training for those affected, including but not limited to: confined space entry, respiratory protection, hot work permits, fire watch, trenching/excavation, fall protection, scaffolding, lock-out/tag-out, forklifts, hoisting and rigging, etc.
8. Employee's rights and obligations
9. OSHA 30 hour Construction Safety Class for all supervisors.

SAFETY REPRESENTATIVE:

SUBCONTRACTOR will designate a "Safety Representative" with authority to manage SUBCONTRACTOR's work, and its lower-tier SUBCONTRACTORS, and project environmental, health and safety programs. The Safety Representative's responsibilities, including implementation and enforcement of the program(s), will be specified in the SHEMS.

Prior to the commencement of work, SUBCONTRACTOR will provide the name and qualifications of the on-site Safety Representative to CONTRACTOR for approval. The Safety Representative must have a current certification in First-Aid/CPR from an accredited agency, and have completed the basic "30 hour Introduction to OSHA" Construction Safety Outreach course within the last 5 years.

No field related work will commence prior to the CONTRACTOR's Safety Department approving the SUBCONTRACTOR Safety Representative

SAFETY MANAGER:

EXHIBIT B

Project: **LAWAATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flätiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

If any of the following criteria is met SUBCONTRACTOR and any lower tier SUBCONTRACTOR shall designate a full time Safety Manager:

- SUBCONTRACTOR employs 30 or more employees at the project site.
- SUBCONTRACTOR contract is greater than 10 million dollars.
- CONTRACTOR determines that SUBCONTRACTOR work warrants a Safety Manager due to scope and risk factors.
- SUBCONTRACTOR whose work is observed to be in gross non-compliance with CONTRACTOR's SHEMS, project safety requirements or regulations.

The Safety Manager shall be a full time position. The Safety Manager cannot hold any other position for the SUBCONTRACTOR. The Safety Manager must have a current OSHA 500 certification and a minimum of 5 plus years of experience in Heavy Civil construction specifically in a Safety position or similar as approved by the CONTRACTOR's Director of Environmental Health and Safety (EHS). The Safety Manager shall have specific knowledge of the SUBCONTRACTOR works, i.e.; hazardous waste, NFPA 70E, demolition, scaffolding, etc. Safety Manager's qualifications must be approved by the CONTRACTOR's Director of EHS. Safety Manager must be available and on site when work is ongoing.

No field related work will commence prior to approval of the Safety Manager by the CONTRACTOR's Director of EHS.

A summary form (included in this appendix) of occupational injuries and illnesses is submitted by the 4th of every month. SUBCONTRACTORS will report all fatal or serious occupational injuries/illnesses, as defined by CCR Title 8, paragraph 330(h) immediately. If an employee sustains an on-the-job, partially disabling injury that results in lost time at work, the SUBCONTRACTOR may choose to discontinue employment on a modified basis. In these instances, SUBCONTRACTOR will notify CONTRACTOR twenty-four (24) hours prior to the discontinuance of employment. CONTRACTOR reserves the right to perform an independent investigation at no additional cost to SUBCONTRACTOR.

EXHIBIT B

Project: LAWAATMP ROADWAY IMPROVEMENTS
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

SUBCONTRACTOR MONTHLY INCIDENT SUMMARY REPORT

Subcontractor Name: FOR EXAMPLE USE ONLY

Subcontract Number: 90009220.SAMPLE2

Project Name: LAWAATMP ROADWAY IMPROVEMENTS

Reporting Period Month: _____ Year: _____

This form must be submitted to the Skanska Safety Director by the 4th of the following month.
It is to be submitted even if no accidents occurred.

Note: SUBCONTRACTORS who fail to submit this report might not receive payment.

Directions: Report all injuries, no matter how minor as indicated below! When reporting number of OSHA recordable medical cases that had lost work days, enter number of calendar days away from work (do not count first day of injury, but the weekends must be counted). Carry over days from a previously reported lost time case where the worker is still off work in this reporting period. Report the number of OSHA recordable medical cases that had restricted or light duty work and the total number of calendar days or restricted or light duty (do not count the first day of injury, but the weekend must be counted). Carry over days from a previously reported restricted or light duty case where the worker is still on restricted or light duty. Report number of first aid only cases for period as well.

	Man-hours Worked	First Aid Injuries	Medical Treatment Only	Lost Time Injuries	Days Lost	Restricted Work Injuries	Days of Restricted Work
Month							
YTD							

Attached a copy of the Employers First Report of Injury or OSHA 301 Report for each recordable injury case reported

Person Making Report: _____ Phone Number: _____

Return to: Regional Director of Environmental Health and Safety (EHS).

EXHIBIT C

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

STANDARD INSURANCE REQUIREMENTS

SECTION I: DEFINITIONS

As used in this Exhibit C:

- (a) "Project" means the project that is the subject of the Subcontract/Purchase Agreement.
- (b) "Scope" means the scope of Work to be provided by Subcontractor under the Subcontract or the Goods and Services to be supplied and performed by Seller under the Purchase Agreement, as applicable.
- (c) "State" means a state of the United States or the District of Columbia or the Commonwealth of Puerto Rico, as applicable.

Capitalized terms used in this Exhibit C and not defined in the Subcontract/Purchase Agreement shall have the meanings generally ascribed to such terms in the commercial insurance industry in the United States.

SECTION II: STANDARD INSURANCE COVERAGES

Subcontractor/Seller shall comply with the following:

1. **Standard Insurance Coverages:** Unless higher limits or additional coverages are required by the Subcontract/Purchase Agreement or Prime Contract, Subcontractor/Seller shall secure and maintain from the earlier of commencement of work or the effective date of the Subcontract/Purchase Agreement the minimum insurance coverages and limits required by this Exhibit C. Failure of the Contractor/Buyer to identify deficiencies in any insurance provided by Subcontractor/Seller shall not relieve Subcontractor/Seller from any insurance obligations. Required coverages are as follows:

- 1.1 **Workers Compensation and Employer's Liability:**

On-site exposures will be insured through: **Standard**

Standard	The Subcontractor/Seller's own Worker's Compensation Insurance and Employer's Liability Insurance policy. (Refer to the same limits, terms and conditions as set forth below under "Off-site Worker's Compensation Insurance and Employer's Liability Insurance".)
OCIP	An Owner Controlled Insurance Program ("OCIP"). The manual explaining these coverages is attached hereto as Exhibit C-1.
CCIP	A Contractor Controlled Insurance Program ("CCIP"). The manual explaining these coverages is attached hereto as Exhibit C-1.

Off-site Worker's Compensation Insurance and Employer's Liability Insurance (including occupational disease) to cover statutory benefits and limits under the Worker's Compensation laws of any applicable jurisdiction in which the Scope is to be performed, and Employers' Liability Insurance with minimum limits of \$1,000,000 each accident; \$1,000,000 for disease, each employee and \$1,000,000 disease, policy limit.

Policy coverage terms and conditions to include:

- USL&H – where applicable.
- Jones Act – where applicable.
- All states endorsement – where applicable.
- Employers Liability/Stop Gap Liability if work is performed in the State of Washington, Wyoming, Ohio, North Dakota or the Commonwealth of Puerto Rico.

EXHIBIT C

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: 90009220.SAMPLE2

- For the attainment of Workers Compensation in monopolistic states and Puerto Rico, coverage must be secured through the state fund of that state.
- Certificate must clearly identify that coverage applies in the State in which the Project is located.

1.2 Commercial General Liability Insurance:

On-site exposures will be insured through this type of insurance: **Standard**

- | | |
|-----------|--|
| Standard: | The Subcontractor/Seller's own Commercial General Liability Insurance ("CGL") policy. (Refer to the same limits, terms and conditions as set forth below under "Off-site Commercial General Liability Insurance".) |
| OCIP: | An Owner Controlled Insurance Program ("OCIP"). The manual explaining these coverages is attached hereto as Exhibit C-1. |
| CCIP: | A Contractor Controlled Insurance Program ("CCIP"). The manual explaining these coverages is attached hereto as Exhibit C-1. |

Off-site Commercial General Liability Insurance ("CGL") written on ISO form CG 00 01 Edition date 10/01 or prior ISO edition occurrence form or equivalent for hazards of: (a) Construction Operation, (b) Subcontractors and Independent Contractors, (c) Products and Completed Operations applicable to the Additional Insured (with Completed Operations coverage to remain in force from the date of final completion of the Scope until the expiration of the statute of repose of the State in which the Project is located). The insurance shall include: (1) Contractual Liability coverage sufficient to meet the requirements of the Subcontract/Purchase Agreement (including defense costs and attorney's fees assumed under contract, which shall be payable in addition to the limit of liability); (2) Personal Injury Liability (with the standard contractual and employee exclusions deleted); (3) Notice and Knowledge of Occurrence; and (4) no subsidence exclusion.

If marked as required, Subcontractor's/Seller's CGL insurance is required to provide the following coverages:

	<u>Required</u>
• Mold	No
• Operations (performed within) 50' of railroad property	No
• Pollution Coverage (Exhibit O Required)	No
• Marine Protection and Indemnity	No
• Hull and Machinery	No
• Marine Pollution Liability	No

If the Subcontractor's/Seller's CGL insurance excludes any of the required coverages, a separate policy acceptable to Contractor/Buyer must be obtained.

For each insurance category checked 'Yes' above, Subcontractor/Seller's CGL insurer and/or broker will evidence, through Policy endorsement, or provide written confirmation, that such coverage is intact, even if each respective insurance certificate lists that type of coverage and describes its liability limits.

The insurance shall have the following minimum limits of liability, which shall be available to the Project:

EACH OCCURRENCE	\$ 1,000,000
PRODUCTS-COMP/OP AGG.	\$ 2,000,000
PERSONAL & ADV INJURY	\$ 1,000,000
GENERAL AGGREGATE	\$ 2,000,000

The general aggregate coverage limits shall be per project general aggregate and shall be evidenced on Subcontractor's/Seller's Certificate of Insurance.

EXHIBIT C

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

1.3 Commercial Auto Liability Insurance:

Commercial Automobile Liability insurance covering all owned, leased and non-owned vehicles used in connection with the Scope with limits of: \$1,000,000 combined single limit per accident for bodily injury and property damage. The policy must include coverage for bodily injury, death and property damage arising out of ownership, maintenance or use of any motorized vehicle on or off the site of the Project, and Contractual Liability coverage. If hauling of hazardous waste is part of the Scope, Automobile Liability Insurance with a \$5,000,000 combined single limit per occurrence for bodily injury and property damage applicable to all hazardous waste hauling vehicles, and include MCS 90 endorsement and the ISO Form CA 9948 (Pollution Liability Broadened Coverage for Business Automobile).

If CGL 12/04 or later edition is provided, the CA0051 1204: Mobile Equipment Subject to Motor Vehicles Laws shall also be provided. This additional endorsement is not required if the 2006 ISO Auto form is provided.

1.4 Commercial Umbrella Liability Insurance:

On-site exposures will be insured through: **Standard**

Standard: The Subcontractor/Seller's own Commercial Umbrella Liability Insurance policy. (Refer to the same limits, terms and conditions as set forth below under "Off-site Commercial Umbrella Liability Insurance".)

OCIP: An Owner Controlled Insurance Program ("OCIP"). The manual explaining these coverages is attached hereto as Exhibit C-1. Commercial Automobile Liability Insurance is NOT included in the OCIP policy. Refer to Section 1.3 for the requirements of the Commercial Automobile Liability Insurance coverage.

CCIP: A Contractor Controlled Insurance Program ("CCIP"). The manual explaining these coverages is attached hereto as Exhibit C-1. Commercial Automobile Liability Insurance is NOT included in the CCIP policy. Refer to Section 1.3 for the requirements of the Commercial Automobile Liability Insurance coverage.

Off-site Commercial Umbrella Liability Insurance for bodily injury and property damage liability over Subcontractor/Seller's primary Employer's Liability, Commercial General Liability and Commercial Automobile Liability with limits available to the Project in the amount of \$5,000,000 each occurrence and aggregate. All coverages and terms required under the Commercial General Liability, Automobile Liability and Employers Liability (sections 1.1, 1.2, and 1.3 above) must be included on the Umbrella Liability policy.

Higher limits may be required by Contractor/Buyer or Owner on a project by project basis.

Subcontractor/Seller's Umbrella Liability Policy shall evidence, through a policy endorsement that it will provide liability coverage in excess of all available underlying coverage before any primary or excess coverage held by any Additional Insured or Indemnified Party is utilized.

1.5 Leased Employee Liability:

If Subcontractor/Seller leases one or more employees through the use of a payroll, employee management or other company, Subcontractor/Seller must directly procure workers compensation/employer's liability insurance. The insurance shall be written on a "Minimum Premium" or "If Any" policy form. In addition, the workers compensation/employer's liability coverage provided to and for the leased employees by the payroll, employee management or other company must be evidenced and include an Alternate Employer/Leased Employee Endorsement, naming Subcontractor/Seller as the alternate employer. The employer's liability must be scheduled under a \$5,000,000 umbrella (except in states where employer's liability is unlimited).

EXHIBIT C

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

1.6 Property Insurance:

Property Insurance coverage for tools and equipment owned, leased or used by the Subcontractor/Seller in the performance of the Scope. The Property Insurance shall extend to equipment, materials and supplies stored off the Project site or in transit to the Project site to be furnished as part of the Scope and incorporated into the Project.

1.7 Professional Liability Insurance:

Required
No

If marked as required, the Scope involves professional services and Professional Liability Insurance is required covering liability for claims that arise from the errors, omissions or acts of the Subcontractor/Seller or any entity for which the Subcontractor/Seller is legally responsible, in the provision of professional services. The policy shall be primary and non-contributory, with the insuring agreement to read: "to pay on behalf of" and shall be effective (retroactively, if applicable) from the date of commencement of all professional activities in connection with the Scope. The coverage shall be maintained for a period of 5 years following final acceptance of the Project. Minimum limits are: (1) Prime Subcontractor Design Professional: \$5,000,000 per claim/annual aggregate; (2) Lower-Tier Subcontractor-Design Professional: \$1,000,000 per claim/annual aggregate. A copy of the policy shall be provided to the Contractor/Buyer upon request.

Coverages shall not include any exclusions or other limitations related to:

- scope of the services.
- delays in project completion and cost overruns.
- who can notify the carrier of a claim or potential claim.
- mold, fungus, asbestos, pollutants or other hazardous substances.

For the purposes of Professional Liability Insurance, the term "Prime Design Professional" means the architect/engineer providing architectural, engineering and/or other professional services under a contract directly with Contractor/Buyer, and the term "Sub-Design Professional" means any architect/engineer providing architectural, engineering and/or other professional services directly or indirectly to a Prime Design Professional in connection with the Project. A Prime Design Professional is also a Subcontractor/Supplier and a Sub-Design Professional is also a Sub-subcontractor/Sub-supplier.

1.8 Riggers Liability Required:

Required
No

If marked as required, the Scope involves the rigging, hoisting, lowering, raising or moving of property or equipment belonging to others and Riggers Liability Insurance is required to insure against physical loss or damage to the property or equipment.

1.9 Aircraft/Watercraft:

Required
No

If marked as required, the Scope involves the use of any owned, leased, chartered or hired aircraft or watercraft of any type and Aircraft Liability Insurance or Watercraft Liability Insurance, as applicable, is required in an amount of not less than \$10,000,000 per occurrence, including Passenger Liability for bodily injury and property damage.

1.10 Watercraft:

Marine Protection and Indemnity
Hull and Machinery
Marine Pollution Liability

Required
No
No
No

EXHIBIT C

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

If marked as required, Marine Protection and Indemnity and Charter Legal Liability are required in an amount of not less than \$5,000,000, and Marine Pollution Liability is required in an amount of not less than \$5,000,000, where applicable or similar watercraft coverage relating to the operation, maintenance or use of any vessel (whether self-propelled or being towed.)

2. **Insurer Requirements:** Each insurer providing insurance coverage as required in this Exhibit C shall be a licensed admitted insurer authorized to issue such coverages in each State in which any part of the Scope is performed. The insurer shall be acceptable to Contractor/Buyer and shall have an AM Best rating of "A-X" or better.
3. **Certificate of Insurance:** Prior to commencing its performance and throughout the warranty period under the Subcontract/Purchase Agreement, Subcontractor/Seller shall provide Contractor/Buyer a current certificate of insurance evidencing the coverages required by this Exhibit C (a sample Certificate of Insurance is attached for reference purposes).
4. **Sub-subcontractor/Sub-supplier:** Before permitting any Sub-subcontractor/Sub-supplier to perform Scope under the Subcontract/Purchase Agreement, the Subcontractor/Seller shall require the Sub-subcontractor/Sub-supplier to maintain insurance in like form and amounts to that required herein. Subcontractor/Seller shall be responsible to ensure that Sub-subcontractor/Sub-supplier maintains insurance in like form and amounts and shall provide evidence of same to Contractor/Buyer if requested.
5. **Notice of Cancellation:** All insurance coverages required by this Exhibit C shall contain a provision that the coverage afforded hereunder cannot be cancelled, non-renewed, allowed to lapse, or have any restricted modifications added unless at least thirty (30) days prior written notice has been given to the Contractor/Buyer.
6. **Additional Insureds:** All insurance required by this Exhibit C (excluding only Workers Compensation Insurance and Professional Liability Insurance) shall name Indemnified Parties as Additional Insureds and any other parties as required by the Prime Contract, and shall be primary and non-contributory to any insurance maintained by Indemnified Parties and Additional Insureds and any other parties as required by Prime Contract, all of which shall be stated on the Certificate of Insurance provided by the Subcontractor. The General Liability Additional Insured Endorsement shall be on Form CG 2010 11/85, or CG 20 10 10/01 plus CG 20 37 10/01, or equivalent and shall include ongoing and completed operations. **Evidence, by endorsement or policy language, of Additional Insured and Primary and Non-Contributory coverage must be provided with the certificate of insurance for General Liability.**
7. **Deductibles/Denial of Claims:** Subcontractor/Seller shall be responsible, at no additional cost to Contractor/Buyer, for the payment of any deductibles or self-insured retention in connection with the insurance coverages required by this Exhibit C both for itself and all Additional Insureds. Any self-insured retention or deductible in excess of \$25,000 must be declared at the time Subcontractor/Seller submits its bid and must be specifically approved by Contractor/Buyer prior to execution of the Subcontract/Purchase Agreement. Subcontractor/Seller shall be responsible for any loss arising out of coverage denial by its insurance carrier.
8. **Dilution of Limits:** For those policies containing an aggregate, as soon as incurred loss activity (paid plus reserve) depletes the aggregate by 50% or more, written notice must be sent to the Contractor/Buyer by certified mail return receipt requested.
9. **OCIP/CCIP Program:** Subcontractor/Seller may be required by Contractor/Buyer to enroll in an Owner Controlled Insurance Program ("OCIP") or Contractor Controlled Insurance Program ("CCIP"). Subcontractor/Seller shall strictly comply with all requirements of the program in which it is required to enroll and the Subcontract Amount/Purchase Agreement Amount shall be reduced by the amount included therein by Subcontractor/Seller for insurance coverage replaced by the OCIP or CCIP as provided in the manual.
10. **Waiver of Subrogation:** All insurance coverages maintained by Subcontractor/Seller shall include a waiver of any right of subrogation of the insurers thereunder against Indemnified Parties and Additional Insureds and all of their respective

EXHIBIT C

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

assigns, subsidiaries, affiliates, employees, insurers and underwriters, and of any right of the insurers to any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any person insured under any such policy (Workers Compensation – where permitted). Subcontractor/Seller further waives all claims and all rights of subrogation against Indemnified Parties' and Additional Insureds' other contractors and all of their respective assigns, subsidiaries, affiliates, employees, insurers and underwriters for loss of, or damage to, Subcontractor's/Seller's Scope, tools, machinery, equipment, material, supplies, or any other losses within the scope of any insurance maintained by Subcontractor/Seller. If any of the Indemnified Parties and Additional Insureds is partially or wholly self insured, then the waiver of subrogation shall apply as if they were in fact covered by their own insurance.

11. No Limitation: The insurance coverages maintained by Subcontractor/Seller shall not limit any of Subcontractor's/Seller's indemnity obligations or other liabilities under the Subcontract/Purchase Agreement. Insurance coverages maintained by Subcontractor/Seller that exceed the minimum requirements in this Exhibit C shall be applicable to the Subcontract/Purchase Agreement.
12. Severability of Interests (Cross Liability): All insurance required by this Exhibit C (excluding only Workers Compensation Insurance and Professional Liability Insurance) shall be endorsed to provide that, inasmuch as the policy is written to cover more than one insured, all terms, conditions, insuring agreements and endorsements, with the exception of limits of liability, shall operate in the same manner as if there were a separate policy covering each insured. No cross liability exclusion will be accepted. Nor shall there be any restrictions in any policies that limit coverage for a claim brought by an Additional Insured against a named insured.
13. Insurance Policy Review/Exclusions/Copies: Contractor/Buyer has the right to receive copies of all insurance policies upon request. Policies shall not contain any exclusions that are not acceptable to Contractor/Buyer and Owner. If requested by Contractor/Buyer or Owner, all policies must be certified by the insurance carrier as being true and complete. Policies shall not contain any exclusions that are not acceptable to Contractor/Buyer and Owner, in their sole discretion. Contractor/Buyer's right to review and approve all insurance policies will not constitute a waiver of any rights created by or provisions contained in this Exhibit C should they differ from those contained in such policies.
14. Claims-Made Policies: Except for Professional Liability Insurance, claims-made policies are not acceptable.
15. Effect of Specified Coverages: In specifying minimum requirements herein, neither Contractor nor Owner assert or recommend this insurance as adequate to Subcontractor's/Seller's requirements. Subcontractor/Seller is solely responsible to inform itself of types of insurance it may need beyond these minimum requirements to protect itself from loss, damage or liability.
16. Breach of Insurance Requirements: Subcontractor's/Seller's failure to obtain and maintain insurance coverages as required by this Exhibit C or any other Exhibit or attachment shall constitute a material breach of the Subcontract/Purchase Agreement. In such event, in addition to any and all other rights and remedies contained in the Subcontract/Purchase Agreement, (i) Contractor/Buyer may, at its option, terminate the Subcontractor/Seller for default; (ii) Contractor/Buyer may, at its option, purchase such coverage and backcharge the premium and associated costs to Subcontractor/Seller; and/or (iii) any of the Indemnified Parties or Additional Insureds can require, that Subcontractor and/or its subcontractors to pay for all attorney's fees, expenses and liability as a result of any claim or lawsuit for which coverage would have been provided to the Indemnified Parties or Additional Insureds under Subcontractor's/Seller's insurance program but for a breach by Subcontractor/Seller or any of its subcontractors. Furthermore, to the extent of their respective interests, the Insurers of those entities that were to be included as Additional Insureds are deemed to be third-party beneficiaries of the insurance procurement obligation and as such have the same rights against the breaching party as the Indemnified Parties or Additional Insureds.

EXHIBIT C

Project: LAWA ATMP ROADWAY IMPROVEMENTS

Project Number: 90009220

Subcontractor: FOR EXAMPLE USE ONLY

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

CERTIFICATE OF LIABILITY INSURANCE										Issue Date MM/DD/YYYY	
<p>THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.</p> <p>IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).</p>											
PRODUCER				CONTACT NAME:							
				PHONE (A/C, No, Ext):						FAX (A/C, No):	
				E-MAIL ADDRESS:							
				PRODUCER CUSTOMER ID #:							
				INSURER(S) AFFORDING COVERAGE						NAIC #	
INSURED				INSURER A:							
				INSURER B:							
				INSURER C:							
				INSURER D:							
				INSURER E:							
				INSURER F:							
COVERAGES				CERTIFICATE:				REVISION NUMBER:			
<p>THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS</p>											
INSR LTR	TYPE OF INSURANCE			ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFFECTIVE (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <div style="display: flex; justify-content: space-between;"> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR </div> <input checked="" type="checkbox"/> ISO FORM CG0001 <input checked="" type="checkbox"/> CONTRACTUAL LIAB GEN'L AGGREGATE LIMIT APPLIES PER: <div style="display: flex; justify-content: space-between;"> POLICY <input checked="" type="checkbox"/> X PROJ-JECT <input checked="" type="checkbox"/> X LOC </div>			X	X	POLICY NUMBER PER PROJECT AGGREGATE ENDORSEMENT 50' RAILROAD EXCLUSION EI MINATED (10/01 & PRIOR OR EQUIVALENT)			EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$300,000 MED EXP (Any one person) \$5,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP OP AGG \$2,000,000		
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			X	X	POLICY NUMBER PER PROJECT ENDORSEMENT INCLUDED			COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$		
	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DEDUCTIBLE RETENTION \$			X	X	POLICY NUMBER PER PROJECT ENDORSEMENT INCLUDED			EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000		
	WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/EMBER EXCLUDED (Mandatory in NH) If yes, describe under special provisions below			Y/N	N/A	X			<div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTH-ER </div> E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE-EA EMPLOYEE \$1,000,000 E.L. DISEASE-POLICY LIMIT \$1,000,000		
OTHER											
The coverages provided shall be pursuant to insurance requirements contained in the Subcontract.											
DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required) All operations performed under LAWA ATMP ROADWAY IMPROVEMENTS, 5450 W 99th Place Los Angeles, CA. 90045 USA, Skanska-Flatiron a Joint Venture Project Number 90009220. All insurance (excluding only Workers Compensation Insurance and Professional Liability Insurance) include Owner, Skanska USA Civil Inc., Skanska USA Inc., Indemnified Parties, any other parties as required by the Prime Contract, All operations performed under LAWA-Los Angeles World Airports, 7301 World Way West, 2nd Floor, Los Angeles, CA 90045, Skanska USA Civil West California District, Project Number 90009220. All insurance (excluding only Workers Compensation Insurance and Professional Liability Insurance) include City of Los Angeles, Its Board of Airport Commissioners, Skanska-Flatiron a Joint Venture, Skanska USA Civil Inc., Skanska USA Inc., Flatiron West, Inc., Indemnified Parties, any other parties as required by the Prime Contract, Skanska USA Civil West California District, Inc., their officers, directors, employees and the City of Los Angeles MUST be named as an additional insured as respects to operations performed for Skanska USA Civil West California District, Inc. and their respective directors, officers, employees and affiliates as Additional Insureds, and shall be primary and non-contributory to any insurance maintained by Additional Insureds. The General Liability Additional Insured Endorsement shall be on Form CG 2010 11/85, or CG 20 10 10/01 plus CG 20 37 10/01, or equivalent and shall include ongoing and completed operations. Waiver of Subrogation applies to all policies for all additional insureds. Umbrella policy applies excess of General Liability, Automobile Liability, and Employers Liability and is evidenced through attached follow form endorsement with complete schedule of underlying policy numbers displayed. Evidence by individual endorsement, or policy language, of Additional Insured and Primary & Non-Contributory coverage on General Liability and waivers of subrogation on General Liability and Worker's Compensation must be provided with the certificate of insurance, and their respective directors, officers, employees and affiliates as Additional Insureds, and shall be primary and non-contributory to any insurance maintained by Additional Insureds. The General Liability Additional Insured Endorsement shall be on Form CG 2010 11/85, or CG 20 10 10/01 plus CG 20 37 10/01, or equivalent and shall include ongoing and completed operations. Waiver of Subrogation applies to all policies for all additional insureds. Umbrella policy applies excess of General Liability, Automobile Liability, and Employers Liability. This Project is insured by a Standard insurance program. Evidence by											

EXHIBIT C

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

<u>endorsement, or policy language, of Additional Insured and Primary & Non-Contributory coverage on General Liability and waivers of subrogation on General Liability and Worker's Compensation must be provided with the certificate of insurance.</u>	
CERTIFICATE HOLDER	CANCELLATION
Skanska-Flatiron a Joint Venture 1995 Agua Mansa Road Riverside, CA 92509	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

EXHIBIT C

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY
CG 2010 11/85

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - - OWNERS, LESSEES OR CONTRACTORS (FORM B)

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of Person or Organization:

Owner, Skanska USA Civil Inc., Skanska USA Inc., Indemnified Parties, any other parties as required by the Prime Contract, All operations performed under LAWA-Los Angeles World Airports, 7301 World Way West, 2nd Floor, Los Angeles, CA 90045, Skanska USA Civil West California District, Project Number 90009220.

All insurance (excluding only Workers Compensation Insurance and Professional Liability Insurance) include City of Los Angeles, Its Board of Airport Commissioners, Skanska-Flatiron a Joint Venture, Skanska USA Civil Inc., Skanska USA Inc., Flatiron West, Inc., Indemnified Parties, any other parties as required by the Prime Contract, Skanska USA Civil West California District, Inc., their officers, directors, employees and the City of Los Angeles MUST be named as an additional insured as respects to operations performed for Skanska USA Civil West California District, Inc. and their respective directors, officers, employees and affiliates as Additional Insureds, and shall be primary and non-contributory to any insurance maintained by Additional Insureds. The General Liability Additional Insured Endorsement shall be on Form CG 2010 11/85, or CG 20 10 10/01 plus CG 20 37 10/01, or equivalent and shall include ongoing and completed operations. Waiver of Subrogation applies to all policies for all additional insureds. Umbrella policy applies excess of General Liability, Automobile Liability, and Employers Liability and is evidenced through attached follow form endorsement with complete schedule of underlying policy numbers displayed.

Evidence by individual endorsement, or policy language, of Additional Insured and Primary & Non-Contributory coverage on General Liability and waivers of subrogation on General Liability and Worker's Compensation must be provided with the certificate of insurance.

Any other parties as required by the prime contract

EXHIBIT C

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement)

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "**your work**" for that insured by or for you.

EXHIBIT C

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

ISO | Commercial General Liability Forms | 10/01/01

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY
CG 2010 10/01

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Person or Organization:

Owner, Skanska USA Civil Inc., Skanska USA Inc., Indemnified Parties, any other parties as required by the Prime Contract, All operations performed under LAWA-Los Angeles World Airports, 7301 World Way West, 2nd Floor, Los Angeles, CA 90045, Skanska USA Civil West California District, Project Number 90009220. All insurance (excluding only Workers Compensation Insurance and Professional Liability Insurance) include City of Los Angeles, Its Board of Airport Commissioners, Skanska-Flatiron a Joint Venture, Skanska USA Civil Inc., Skanska USA Inc., Flatiron West, Inc., Indemnified Parties, any other parties as required by the Prime Contract, Skanska USA Civil West California District, Inc., their officers, directors, employees and the City of Los Angeles MUST be named as an additional insured as respects to operations performed for Skanska USA Civil West California District, Inc. and their respective directors, officers, employees and affiliates as Additional Insureds, and shall be primary and non-contributory to any insurance maintained by Additional Insureds. The General Liability Additional Insured Endorsement shall be on Form CG 2010 11/85, or CG 2010 10/01 plus CG 2037 10/01, or equivalent and shall include ongoing and completed operations. Waiver of Subrogation applies to all policies for all additional insureds. Umbrella policy applies excess of General Liability, Automobile Liability, and Employers Liability and is evidenced through attached follow form endorsement with complete schedule of underlying policy numbers displayed.

Evidence by individual endorsement, or policy language, of Additional Insured and Primary & Non-Contributory coverage on General Liability and waivers of subrogation on General Liability and Worker's Compensation must be provided with the certificate of insurance.

Any other parties as required by the prime contract

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

A. Section II - Who Is An Insured is amended to include as an additional insured the person or organization shown in the Schedule, but only with respect to liability arising out of your ongoing operations performed for that insured.

EXHIBIT C

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY
CG 2037 10/01

THIS ENDORSEMENT CHANGES THE POLCY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED -OWNERS, LESSEES OR CONTRACTORS - COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of Person or Organization:

Owner, Skanska USA Civil Inc., Skanska USA Inc., Indemnified Parties, any other parties as required by the Prime Contract, All operations performed under LAWA-Los Angeles World Airports, 7301 World Way West, 2nd Floor, Los Angeles, CA 90045, Skanska USA Civil West California District, Project Number 90009220.

All insurance (excluding only Workers Compensation Insurance and Professional Liability Insurance) include City of Los Angeles, Its Board of Airport Commissioners, Skanska-Flatiron a Joint Venture, Skanska USA Civil Inc., Skanska USA Inc., Flatiron West, Inc., Indemnified Parties, any other parties as required by the Prime Contract, Skanska USA Civil West California District, Inc., their officers, directors, employees and the City of Los Angeles MUST be named as an additional insured as respects to operations performed for Skanska USA Civil West California District, Inc. and their respective directors, officers, employees and affiliates as Additional Insureds, and shall be primary and non-contributory to any insurance maintained by Additional Insureds. The General Liability Additional Insured Endorsement shall be on Form CG 2010 11/85, or CG 20 10 10/01 plus CG 20 37 10/01, or equivalent and shall include ongoing and completed operations. Waiver of Subrogation applies to all policies for all additional insureds. Umbrella policy applies excess of General Liability, Automobile Liability, and Employers Liability and is evidenced through attached follow form endorsement with complete schedule of underlying policy numbers displayed.

Evidence by individual endorsement, or policy language, of Additional Insured and Primary & Non-Contributory coverage on General Liability and waivers of subrogation on General Liability and Worker's Compensation must be provided with the certificate of insurance.

Any other parties as required by the prime contract

Location And Description of Completed Operations:

Additional Premium:

EXHIBIT C

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

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(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement)

Section II - Who is An Insured is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" at the location designated and described in the schedule of this endorsement performed for that insured and included in the "products-completed operations hazard".

CG 2037 10/01

EXHIBIT C

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

COMMERCIAL GENERAL LIABILITY
CG 20 01 04 13

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**PRIMARY AND NONCONTRIBUTORY -
OTHER INSURANCE CONDITION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

The following is added to the Other Insurance Condition and supersedes any provision to the contrary:

Primary And Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured under your policy provided that:

- 1) The additional insured is a Named Insured under such other insurance; and
- 2) You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

CG 20 01 04 13

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EXHIBIT D

Project: LAWA ATMP ROADWAY IMPROVEMENTS
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

CODE OF CONDUCT

Skanska strives to achieve mutually beneficial supplier relationships built on common values and expected behaviors. The Skanska Code of Conduct (our Code) outlines the behaviors we expect from our employees. This Skanska Supplier Code of Conduct (our Supplier Code) contains relevant portions of our Code that apply to you as an important part of our supply chain. We encourage our suppliers to engage in constructive dialogue with us regarding our Supplier Code and doing business together.

Foundation of the Supplier Code

Skanska is committed to conducting business in a responsible and sustainable way. We require the same of our suppliers. Our Code and our Supplier Code are based on our Skanska Values, described here:

Care for Life

We care for life of people and the environment. We work safely, or not at all. We never walk by if we notice unsafe actions. We support health and well-being. We promote green solutions and conduct our operations in a green way. We are accountable to future generations.

Act Ethically and Transparently

We do business with a high degree of integrity and transparency. We live by our Code of Conduct and never accept shortcuts. We foster a working climate where everyone can speak their mind.

Be Better – Together

We always strive to be better in all we do. We are a learning organization and generously share our expertise. We take pride in quality and innovation. We build One Skanska teams together with customers, partners and communities. We leverage diversity to deliver the best solutions. We foster inclusive cultures where we are open and fair, showing trust and respect for each other.

Commit to Customers

We help our customers to be successful in their business. We strive to understand their needs and their customers' needs. We are here to help our customers turn their visions into reality. Importantly, Skanska is a signatory to the United Nations (UN) Global Compact, and we adhere to its Ten Principles reflecting human rights, labor, the environment and anti-corruption. We further support the rights of all people as described in the Universal Declaration of Human Rights adopted by the UN and in the conventions of the UN's International Labour Organization. In addition, as a founding and participating member of the World Economic Forum's Partnering Against Corruption Initiative (PACI), we subscribe to the principles supported by PACI.

Who the Code Applies To

This Supplier Code applies to providers of goods and services – and their employees – in their work with Skanska through a contractual agreement. It is not applicable to single transactions such as a taxi ride, dinner at a restaurant, purchasing a railway ticket, or any similar type of transaction not subject to a frame agreement.

The group that we collectively call “suppliers” includes suppliers, subcontractors, service providers, professional service providers, consultants, intermediaries and agents. As a supplier, you must ensure that the practices and principles outlined in Skanska's Supplier Code are flowed down throughout your own supply chain.

EXHIBIT D

Project: LAWAATMP ROADWAY IMPROVEMENTS

Project Number: 90009220

Subcontractor: FOR EXAMPLE USE ONLY

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

Compliance with Laws

You are required to comply with all applicable laws and with our Supplier Code, including when our Supplier Code sets a higher standard than, but does not conflict with, legal requirements. Customs or local practices never take precedence over legal requirements. If you find that our Supplier Code is in conflict with applicable legal requirements, you should inform the relevant Skanska manager.

Reporting Misconduct

Skanska believes that a strong ethical culture depends in part upon creating an environment in which employees feel free to report instances of non-compliance with our Code or Supplier Code. Such non-compliance might include suspected illegal or unethical conduct (collectively called misconduct). We are committed to investigating reports of suspected or known misconduct, and to taking appropriate action based on our findings. Similarly, you – including your employees and your supply chain – are obligated to report to us suspected or known misconduct. Suspected or known misconduct must be reported by speaking with the relevant Skanska manager, or to the Ethics Committee of the Business Unit or Reporting Unit (Skanska Unit) for which you are working. If you prefer, you may report suspected or known misconduct confidentially and anonymously to the Skanska Code of Conduct Hotline, either by telephone or online (instructions appear near the end of this Supplier Code).

No Retaliation

Skanska does not retaliate against anyone for submitting in good faith a report of suspected or known misconduct, nor do we tolerate others retaliating. Similarly, you must not retaliate or tolerate retaliation against anyone who, in good faith, reports suspected or known misconduct. “Good faith” means that to the best of a person’s knowledge and belief, everything reported is true and that everything known is reported.

Auditing

Skanska reserves the right to monitor and audit each supplier’s compliance with our Supplier Code. Accordingly, you must cooperate by providing relevant information that we request, and by making individuals accessible so Skanska can conduct a meaningful audit. Similarly, you are required to evaluate your supply chain to ensure compliance with our Supplier Code, and to conduct audits of your supply chain when requested by Skanska. Any non-compliance by you or your supply chain must be effectively remediated both in a timely manner and at no additional cost to us or our customers. Breaches of the Supplier Code may negatively impact your business relationship with Skanska. Potential consequences may include but are not limited to contract termination. This provision for Auditing does not relieve or limit a supplier’s obligations or responsibilities.

Health, Safety and Well-Being

We care for our people and the people affected by our workplaces, and we continuously strive to develop a work environment that promotes health, safety and well-being. We aim to lead our industry in health and safety performance, with continuous, measurable improvements toward our goal of an injury-free environment. We promote and share sound personal safety and accident prevention practices with our supply chain and throughout our industry.

What does it mean for you?

- You work together with Skanska and other suppliers to ensure a healthy and safe working environment.
- You ensure that your employees and others in your supply chain are adequately trained and provided with the proper equipment to safely carry out their work.
- You recognize that all employees have a right and an obligation to stop unsafe work.
- You report to Skanska all health and safety incidents related to our project sites and in our workplaces.

EXHIBIT D

Project: LAWA ATMP ROADWAY IMPROVEMENTS

Project Number: 90009220

Subcontractor: FOR EXAMPLE USE ONLY

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

Fair Working Conditions

We support recognized global human rights and fair working conditions for persons working on our projects, in our workplaces, and in our supply chain.

What does it mean for you?

- You ensure that working conditions, hours, wages and benefits comply with applicable national and local laws and relevant ILO conventions.
- You have zero tolerance for any form of human trafficking or child, forced or compulsory labor, including such practices as the unlawful or illegitimate withholding of wages. A child is anyone below the age of 15, or below any higher minimum age specified by local law.
- You do not allow any practice that would restrict free movement of employees. Such practices can include requiring that employees hand over identification documents, passports or work permits as a condition of employment.
- You recognize and respect employees' right to freedom of association and collective bargaining, where permissible by law.
- You recognize the special needs of employees under the age of 18, and your duty of care toward them.

No Discrimination or Harassment

We respect all individuals and strive to work as one team, and to foster open, straightforward and respectful communication. We provide equal treatment and employment opportunities, and we do not tolerate any form of harassment or discrimination.

What does it mean for you?

- You do not tolerate disrespectful behavior, bullying, discrimination, harassment or unwanted sexual advances.
- You do not discriminate, and you provide equal treatment and opportunities for employees and job applicants.
- You embrace and promote an inclusive culture.

Environment

We are committed to protecting the environment and believe that we can make major contributions to a more sustainable world. We actively work to improve the environmental performance of our operations, projects, products and services during their entire life cycles.

What does it mean for you?

- You conduct your operations in an environmentally responsible manner and in accordance with applicable environmental laws.
- You comply with standards required by Skanska's environmental management system.

Protection of Assets, Property and Equipment

We safeguard and protect our assets from damage, theft, loss and misuse, as they are essential to our business. Assets are either tangible or intangible. Examples of tangible assets are raw materials, money, products, machines and equipment, computers and real estate. Examples of intangible assets are our brand, patents, trademarks, knowhow, trade secrets and copyrights.

What does it mean for you?

- You respect the assets of Skanska and our stakeholders.

EXHIBIT D

Project: LAWA ATMP ROADWAY IMPROVEMENTS
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

- You only use assets belonging to Skanska and others as and when appropriately authorized.
- You do not tolerate theft of assets.

Confidentiality

We respect confidential information relating to Skanska and our stakeholders, and take all reasonable measures to prevent confidential information from being disclosed to any person who does not need and have a right to that information in the course of their work.

What does it mean for you?

- You ensure the protection of confidential information entrusted to you by Skanska, our customers and others.
- You do not act on confidential information received in error, whether it has come from Skanska, our customers or others. You contact the sender and disclose the situation to Skanska.

Protection of Personal Data (Data Protection)

We respect everyone's right to the protection of his or her personal data and the right to his/ her integrity in connection with processing of personal data. The definition of personal data, and the legal requirements for safeguarding it, varies by country. It could include someone's names, personal healthcare information, photographs or identity number.

What does it mean for you?

- You ensure that all uses of personal data – such as collection, registration, comparison, storage and deletion, or a combination of these – take place in accordance with applicable laws and regulations.

Anti-Corruption and Anti-Bribery

We are committed to conducting business with a high level of integrity, and we do not tolerate any form of bribery or corruption, including embezzlement, money laundering, kickbacks, extortion, fraud, nepotism (family) or cronyism (friends).

What does it mean for you?

- You conduct business with integrity, and you likewise do not tolerate any form of bribery or corruption.
- You never request, accept, pay, offer or authorize bribes, either directly or indirectly, under any circumstances. This includes never seeking to improperly influence or bribe a Skanska employee, customer, or public official (including foreign public officials) or any other individual or entity.
- You do not offer or make facilitation payments, nor do you permit others to offer or make such payments on your behalf. Facilitation payments are bribes – often small – paid to public officials to speed up non-discretionary bureaucratic processes and access services to which the payer is lawfully entitled.
- You ensure that all reports, records and invoices are complete and accurate and not false or misleading.

Fair Competition

We believe fair competition benefits Skanska, our stakeholders and society as it drives efficiency and innovation, which are the basis of a well-functioning market economy. We are committed to fair competition and do not tolerate any violation of antitrust laws, competition laws or related regulations.

What does it mean for you?

- You practice fair competition.

EXHIBIT D

Project: LAWA ATMP ROADWAY IMPROVEMENTS
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

- You do not participate in bid rigging by way of bid suppression, complementary or cover bidding, bid rotation, or other mechanisms that limit fair competition in tender situations.
- You do not participate in any other form of cartel practices with competitors, such as dividing or allocating markets or customers or price fixing.

Conflict of Interest

When acting as a representative of an employer or other party, we all are responsible for making decisions in the best interest of that employer or party without regard for personal gain. Conflicts of interest can be rooted in hospitality and entertainment, gifts, charitable contributions, political contributions, sponsorships and close personal relationships. Skanska strives to operate in a manner in which conflicts of interests are actively avoided, and we require our supply chain to do the same.

What does it mean for you?

- You avoid situations that – in your work with Skanska – may present a conflict of interest or appear to do so.
- You notify Skanska if you become aware of an actual or perceived conflict of interest in your work with Skanska.

Hospitality and Gifts

We do not request, accept, offer, authorize or provide hospitality or gifts that may improperly influence – or create the appearance of improperly influencing – our business decisions, or decisions by our customers or others with whom we work. Each Skanska Unit has established a hospitality and gifts policy that outlines acceptable circumstances and monetary limits for hospitality and gifts.

What does it mean for you?

- You do not offer or accept hospitality or gifts that may improperly influence – or create the appearance of improperly influencing – your business decisions or those of Skanska, our customers or others.
- You respect and observe the hospitality and gifts policy of the Skanska Unit with which you are working.
- If a Skanska employee requests any type of hospitality, gift or personal service for free or at less than fair market value, you report it to Skanska.

Sanctions

Sanctions are legal instruments used by governments and multinational bodies to influence foreign policy by prohibiting business dealings with certain countries, individuals, entities or sectors. Sanctions lists are maintained by the United Nations, the EU, and the United States, among others.

What does it mean for you?

- You respect that Skanska needs to know its external parties and you are transparent about the real beneficial owners with whom Skanska conducts business.
- You respect and observe that Skanska is vigilant in watching for external parties who may be on a sanctions list or may have a related company in a country subject to sanctions.
- You report to Skanska if you have questions or concerns regarding sanctions laws and regulations.

How to Report a Concern

You can report a concern to the relevant Skanska manager, or the following information can be used to report suspected or known misconduct to the respective Skanska Ethics Committee (email addresses). Alternatively, you

EXHIBIT D

Project: IAWAATMP ROADWAY IMPROVEMENTS
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

can confidentially and anonymously submit a report to the Skanska Code of Conduct Hotline, either by phone or online. The Hotline is available globally, and is independently administered by an external organization.

Email:	USAethicsCommittee@Skanska.com
Toll free phone:	866-250-6706
Web:	www.SpeakUpFeedback.eu/web/xwrsyft/us
Access code:	71447
Language:	English or Spanish

EXHIBIT E

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

CERTAIN PRIME CONTRACT CLAUSES

Subcontractor shall have the same duties and obligations to Contractor also referred to as “Design/Builder” with respect to its performance of its own Work as Contractor has to Owner under the Prime Contract.

Without limiting in any way the generality of the clause in the Agreement entitled, “OBLIGATIONS AND THE PRIME CONTRACT” Subcontractor/Seller/Consultant is fully bound by the following clauses in the Prime Contract, including but not limited to:

GC- 2. ORDER OF PRECEDENCE AND CONTRACT INTERPRETATION

Subcontractor expressly agrees that it is fully bound by all applicable clauses of the Prime Contract, including but not limited to the following Contract Documents:

A. Conflicts in the application or interpretation of any parts of the Contract Documents that cannot be resolved shall be interpreted in accordance with the following order of precedence (the first listed being the highest precedence):

1. Applicable Laws and Regulations
2. Permits
3. Executed Change Orders (more recent controlling)
4. Executed Contract Agreement
5. Special Conditions
6. General Conditions
7. Project Requirements
8. Technical Specifications
9. Project Plans/Drawings (detailed plans having greater precedence)
10. Reference Documents

B. Publication Dates: Date of Reference Standard in effect as of date of Request For Proposals except when specific date is specified or when Reference Standard is part of applicable code which includes edition date.

C. Where compliance with two (2) or more Reference Standards are specified and Reference Standards establish different or conflicting requirements for minimum quantities or quality levels, the more restrictive/most stringent interpretation shall govern. Refer uncertainties and requirements that are different but apparently equal to LAWA for decision before proceeding.

D. In case of a conflict within a part of a Contract Document, the provision with the more restrictive/most stringent interpretation shall govern.

Section 9.0 Compliance With Los Angeles City Charter Section 470(c)(12) and 609(E).

9.1 The Design-Builder, other underwriting firm members of the underwriting syndicate, Subcontractors, and their Principals are obligated to fully comply with City of Los Angeles Charter Sections 470(c)(12), 609(e) and related ordinances, regarding limitations on campaign contributions and fundraising to certain elected City officials or candidates for elected City office. Gifts to elected officials and certain City officials are also limited. Additionally, Design-Builder and other underwriting firm members of the underwriting syndicate are required to provide and update certain information to the City as specified by law. Any Design-Builder and other underwriting firm

EXHIBIT E

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

members of the underwriting syndicate subject to Charter Section 470(c)(12) and 609(e), shall include the following notice in any contract with a subcontractor expected to receive at least \$100,000 for performance under this contract:

"Notice Regarding City of Los Angeles Campaign Contribution and Fundraising Restrictions

As provided in Charter Sections 470(c)(12), 609(e) and related ordinances, you are subcontractor or underwriting firm on City of Los Angeles Contract/Resolution #_____. Pursuant to City Charter Section 470(c)(12) and 609(e), underwriting firm, subcontractor and principals are prohibited from making campaign contributions and fundraising for certain elected City officials or candidates for elected City office for 12 months after the City contract is signed. Additionally, gifts are limited to elected officials and certain City officials. Subcontractor is required to provide to contractor names and addresses of the subcontractor's principals and contact information and shall update that information if it changes during the 12 month time period. Subcontractor's information included must be provided to contractor within 10 business days. Failure to comply may result in termination of contract or any other available legal remedies including fines. Information about the restrictions may be found at the City Ethics Commission's website at <http://ethics.lacity.org/> or by calling 213/978-1960."

GC- 9. SUBCONTRACTS

N. Each Subcontractor of every tier to be bound to the Design/Builder by the terms of the Contract Documents, and to assume toward the Design/Builder all applicable obligations and responsibilities which the Design/Builder, by these Documents, assumes toward LAWA. Said Contract shall preserve and protect the rights of LAWA under the Contract Documents with respect to the Work to be performed by the subcontractors that the subcontracting thereof will not prejudice such rights.

Section 12.0 Prevailing Wage

Subcontractor shall, at all times during the performance of the work hereunder, pay the general prevailing rate of per diem wages for each craft or type of worker needed to execute this Contract, at such rate(s) as has been determined by the Director of the Department of Industrial Relations of the State of California, or by the U.S. Department of Labor (Davis-Bacon and Related Acts ("DBRA")) as specifically applied to Los Angeles County. Design-Builder shall pay the higher of these stated prevailing labor rates.

Section 13.0 Iran Contracting Act, 2010.

In accordance with California Public Contract Code Sections 2200-2208, contractors entering into or renewing contracts with City for goods or services estimated at one million dollars (\$1,000,000) or more are required to complete, sign and submit the Iran Contracting Act of 2010 Compliance Affidavit ("Affidavit"). Subcontractor's compliance with the terms of the Iran Contracting Act of 2010 is made a requirement and condition of this Agreement.

EXHIBIT E

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

GC-14. OWNERSHIP AND USE OF CONTRACT WORK PRODUCTS

A. Ownership. All Work Products originated and prepared by Design/Builder, or its subcontractors of any tier under this Contract shall be and remain the property of LAWA for its use in any manner it deems appropriate; provided, however, that any use unintended under the Contract, or modification or alteration of the Work Products without the direct involvement of the Design/Builder shall be without Liability to Design/Builder. Work Products are all works, tangible or not, created under this Contract for LAWA including, without limitation, documents, material, data, reports, manuals, specifications, artwork, drawings, sketches, computer programs and databases, schematics, photographs, video and audiovisual recordings, sound recordings, marks, logos, graphic designs, notes, websites, domain names, inventions, processes, formulas, matters and combinations thereof, and all forms of intellectual property therein. To the extent applicable under the U.S. Copyright Act, all works created by Design/Builder under this Contract are work-made-for-hire created for the sole benefit and ownership of LAWA. LAWA hereby grants to Design/Builder a license, revocable at will of City, to use and copy such documents during the term of this Contract for the sole purpose of performing the Services. All copies of tangible materials or writings embodying such intellectual properties shall be turned over to City upon termination of this Contract or completion of work pursuant to this Contract. Design/Builder hereby assigns, and agrees to assign to City, all goodwill, copyrights and trademarks in all Work Products originated and prepared by Design/Builder under this Contract. Design/Builder further agrees to execute any documents necessary for LAWA to perfect, memorialize, or record LAWA's ownership of rights provided herein. This paragraph shall survive expiration or termination of this Contract.

B. Obligation on Subcontractor. Any subcontract entered into by Subcontractor relating to this Contract, to the extent allowed hereunder, shall include a like provision (on City's ownership in Work Products) for work to be performed under this Contract to Contractually bind or otherwise oblige its subcontractor performing work under this Contract such that LAWA's ownership rights of all Work Products are preserved and protected as intended herein. Failure of Subcontractor to comply with this requirement or to obtain the compliance of its subcontractor with such obligations shall subject Subcontractor to all remedies allowed under law and termination of this Contract.

GC- 69. LIVING WAGE AND SERVICE CONTRACT WORKER RETENTION REQUIREMENTS

A. Living Wage Ordinance

1. General Provisions: Living Wage Policy. This Contract is subject to the Living Wage Ordinance ("LWO") (Section 10.37, et seq., of the Los Angeles Administrative Code, which is incorporated herein by this reference. The LWO requires that, unless specific exemptions apply, any employees of service contractors who render services that involve an expenditure in excess of twenty-five thousand dollars (\$25,000) and a contract term of at least three (3) months are covered by the LWO if any of the following applies: (1) at least some of the services are rendered by employees whose Project Site is on property owned by the City, (2) the services could feasibly be performed by City of Los Angeles employees if the awarding authority had the requisite financial and staffing resources, or (3) the designated administrative agency of the City of Los Angeles has determined in writing that coverage would further the proprietary interests of the City of Los Angeles. Employees covered by the LWO are required to be paid not less than a minimum initial

EXHIBIT E

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: 90009220.SAMPLE2

wage rate, as adjusted each year. The LWO also requires that employees be provided with at least twelve (12) compensated days off per year for sick leave, vacation, or personal necessity at the employee's request, and at least ten (10) additional days per year of uncompensated time pursuant to Section 10.37.2(b). The LWO requires employers to inform employees making less than twelve dollars (\$12) per hour of their possible right to the federal Earned Income Tax Credit ("EITC") and to make available the forms required to secure advance EITC payments from the employer pursuant to Section 10.37.4. Contractor shall permit access to Project Sites for authorized City representatives to review the operation, payroll, and related documents, and to provide certified copies of the relevant records upon request by the City. Whether or not subject to the LWO, Contractor shall not retaliate against any employee claiming non-compliance with the provisions of the LWO, and, in addition, pursuant to Section 10.37.6(c), Contractor agrees to comply with federal law prohibiting retaliation for union organizing.

2. **Living Wage Coverage Determination.** An initial determination has been made that this is a service contract under the LWO, and that it is not exempt from coverage by the LWO. Determinations as to whether this Contract is a service contract covered by the LWO, or whether an employer or employee are exempt from coverage under the LWO are not final, but are subject to review and revision as additional facts are examined and/or other interpretations of the law are considered. In some circumstances, applications for exemption must be reviewed periodically. City shall notify Contractor in writing about any redetermination by City of coverage or exemption status. To the extent Contractor claims non-coverage or exemption from the provisions of the LWO, the burden shall be on Contractor to prove such non-coverage or exemption.

3. **Compliance. Termination Provisions and Other Remedies: Living Wage Policy.** If Contractor is not initially exempt from the LWO, Contractor shall comply with all of the provisions of the LWO, including payment to employees at the minimum wage rates, effective on the Execution Date of this Contract, and shall execute the Declaration of Compliance Form attached to this Contract, contemporaneously with the execution of this Contract. If Contractor is initially exempt from the LWO, but later no longer qualifies for any exemption, Contractor shall, at such time as Contractor is no longer exempt, comply with the provisions of the LWO and execute the then currently used Declaration of Compliance Form, or such form as the LWO requires. Under the provisions of Section 10.37.6(c) of the Los Angeles Administrative Code, violation of the LWO shall constitute a material breach of this Contract and City shall be entitled to terminate this Contract and otherwise pursue legal remedies that may be available, including those set forth in the LWO, if City determines that Contractor violated the provisions of the LWO. The procedures and time periods provided in the LWO are in lieu of the procedures and time periods provided elsewhere in this Contract. Nothing in this Contract shall be construed to extend the time periods or limit the remedies provided in the LWO.

4. **Subcontractor Compliance.** Contractor agrees to include in every subcontract involving this Contract entered into between Contractor and any subcontractor, a provision pursuant to which such subcontractor (A) agrees to comply with the Living Wage Ordinance and the Service Contractor Worker Retention Ordinance with respect to this Contract; (B)

EXHIBIT E

Project: LAWAATMP ROADWAY IMPROVEMENTS
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

agrees not to retaliate against any employee lawfully asserting noncompliance on the part of the subcontractor with the provisions of either the Living Wage Ordinance or the Service Contractor Worker Retention Ordinance; and (C) agrees and acknowledges that City, as the intended third-party beneficiary of this provision may (i) enforce the Living Wage Ordinance and Service Contractor Worker Retention Ordinance directly against the subcontractor with respect to this Contract, and (ii) invoke, directly against the subcontractor with respect to this Contract, all the rights and remedies available to City under Section 10.37.5 of the Living Wage Ordinance and Section 10.36.3 of the Service Contractor Worker Retention Ordinance, as same may be amended from time to time.

B. Service Contract Worker Retention Ordinance. This Contract may be subject to the Service Contract Worker Retention Ordinance ("SCWRO")(Section 10.36, et seq, of the Los Angeles Administrative Code), which is incorporated herein by this reference. If applicable, Contractor must also comply with the SCWRO which requires that, unless specific exemptions apply, all employers under contracts that are primarily for the furnishing of services to or for the City of Los Angeles and that involve an expenditure or receipt in excess of \$25,000 and a contract term of at least three (3) months, shall provide retention by a successor contractor for a ninety day (90-day) transition period of the employees who have been employed for the preceding twelve (12) months or more by the terminated contractor or subcontractor, if any, as provided for in the SCWRO. Under the provisions of Section 10.36.3(c) of the Los Angeles Administrative Code, City has the authority, under appropriate circumstances, to terminate this Contract and otherwise pursue legal remedies that may be available if City determines that the subject contractor violated the provisions of the SCWRO.

GC-70. NON-DISCRIMINATION AND EQUAL EMPLOYMENT PRACTICES / AFFIRMATIVE ACTION PROGRAM.

A. During the term of this Contract, SUBCONTRACTOR agrees and obligates itself in the performance of this Contract not to discriminate against any employee or applicant for employment because of the employee's or applicant's race, religion, national origin, ancestry, sex, sexual orientation, age, physical handicap, marital status, domestic partner status, or medical condition. SUBCONTRACTOR shall take affirmative action to ensure that applicants for employment are treated, during the term of this Contract, without regard to the aforementioned factors and SUBCONTRACTOR shall comply with the affirmative action requirements of Los Angeles Administrative Code Sections 10.8, et seq., or any successor ordinances or laws pertaining to discrimination.

B. During the performance of this Contract, SUBCONTRACTOR agrees to comply with Section 10.8.3 of the Los Angeles Administrative Code ("Equal Employment Practices"), including any future amendments thereto, which is incorporated herein by this reference. By way of specification, but not limitation, pursuant to Sections 10.8.3.E and 10.8.3.F of said Administrative Code, the failure of SUBCONTRACTOR to comply with the Equal Employment Practices provisions of this Contract may be deemed to be a material breach of this Contract. No such finding shall be made, nor penalties assessed, except upon a full and fair hearing after notice and an opportunity to be heard has been provided to SUBCONTRACTOR. Upon a finding duly made that

EXHIBIT E

Project: LAWA ATMP ROADWAY IMPROVEMENTS

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: 90009220.SAMPLE2

SUBCONTRACTOR has failed to comply with said Equal Employment Practices provisions of this Contract, this Contract may be forthwith terminated, cancelled or suspended.

C. During the performance of this Contract, SUBCONTRACTOR agrees to comply with Section 10.8.4 of the Los Angeles Administrative Code ("Affirmative Action Program"), including any future amendments thereto, which is incorporated herein by this reference. By way of specification, but not limitation, pursuant to Sections 10.8.4.E and 10.8.4.F of said Administrative Code, the failure of SUBCONTRACTOR to comply with the Affirmative Action Program provisions of this Contract may be deemed to be a material breach of this Contract. No such finding shall be made, nor penalties assessed, except upon a full and fair hearing after notice and an opportunity to be heard has been provided to SUBCONTRACTOR. Upon a finding duly made that SUBCONTRACTOR has failed to comply with the Affirmative Action Program provisions of this Contract, this Contract may be forthwith terminated, cancelled or suspended.

D. All subcontracts awarded under this Contract shall contain similar provisions and SUBCONTRACTOR shall require each of its subcontractors to complete a like certification and to submit to it an Affirmative Action Plan acceptable to City.

E. SUBCONTRACTOR also agrees to comply with the provisions of Article 3 of Chapter 1, Part 7, Division 2 of the Labor Code of the State of California, and with all other applicable statutes, ordinances, and regulations relative to employment, wages, and hours of labor.

GC-74. CONTRACTOR RESPONSIBILITY PROGRAM

A. Pursuant to Resolution No. 21601 adopted by the Board of Airport Commissioners, effective May 20, 2002, it is the policy of LAWA to ensure that all LAWA contractors have the necessary quality, fitness and capacity to perform the Work set forth in the contract. LAWA shall award contracts only to entities and individuals it has determined to be Responsible Contractors.

The provisions of this Program apply to leases and contracts for construction, for services, and for purchases of goods and products that require Board approval.

B. Bidders/Proposers are required to complete and submit with the bid/proposal the attached "Contractor Responsibility Program Questionnaire" that provides information LAWA needs in order to determine if the bidder/proposer is responsible and has the capability to perform the contract. The information contained in the CRP Questionnaire is subject to public review for a period of not less than fourteen (14) days. Bidders/Proposers are also required to complete, sign and submit with the bid/proposal the attached "Contractor Responsibility Program Pledge of Compliance." Bidders/Proposers are also required to respond within the specified time to LAWA's request for information and documentation needed to support a Contractor Responsibility determination. Subcontractors will be required to submit the Pledge to the prime contractor prior to commencing work. The CRP Rules and Regulations are available at <http://www.lawa.org>.

GC-75. EQUAL BENEFITS ORDINANCE (EBO)

A. Unless otherwise exempt in accordance with the provisions of the Equal Benefits ("EBO") Ordinance, this Contract is subject to the applicable provisions of EBO Section 10.8.2.1 of the Los Angeles Administrative Code, as amended from time to time.

EXHIBIT E

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

B. During the term of this Contract, SUBCONTRACTOR certifies and represents that the SUBCONTRACTOR will comply with the EBO. Furthermore, SUBCONTRACTOR agrees to post the following statement in conspicuous places at its place of business available to employees and applicants for employment:

During the term of a Contract with the City of Los Angeles, the SUBCONTRACTOR will provide equal benefits to employees with spouses and its employees with domestic partners. Additional information about the City of Los Angeles' Equal Benefits Ordinance may be obtained from the Department of Public Works, Bureau of Contract Administration, Office of Contract Compliance at (213) 847-6480.'

GC-76. FIRST SOURCE HIRING PROGRAM FOR AIRPORT EMPLOYERS (LAX ONLY)

SUBCONTRACTOR shall comply with the provisions of the First Source Hiring Program adopted by the Board.

GC-78. ANTITRUST CLAIMS

By entering into this Contract, the Subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec 15) or Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and professions Code) arising from purchases of goods, services, or material pursuant to the public works contract. The Subcontractor shall include in each subcontract a provision corresponding to the forgoing, binding the subcontractor to offer and agree to assign to the City such rights, title and interest held by such subcontractor.

EXHIBIT F

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

**CONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT
(Civil Code §8132)**

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information

Name of Claimant: FOR EXAMPLE USE ONLY

Name of Customer: Skanska-Flatiron a Joint Venture

Job Location: LAWA ATMP ROADWAY IMPROVEMENTS, 5450 W 99th Place Los Angeles, CA, 90045
USA

Owner: City of Los Angeles - Los Angeles World Airports (LAWA)

Through Date: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: _____

Amount of Check: \$ _____

Check Payable to: _____

Exceptions

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) The following progress payments for which the claimant has previously given a conditional waiver and release but has not received payment:

Date(s) of waiver and release: _____

Amount(s) of unpaid progress payment(s): \$ _____

- (4) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Signature

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

EXHIBIT F

Project: LAWAATMP ROADWAY IMPROVEMENTS

Project Number: 90009220

Subcontractor: FOR EXAMPLE USE ONLY

Skanska-Flatiron a Joint Venture

Agreement Number: 90009220.SAMPLE2

EXHIBIT F

Project: LAWAATMP ROADWAY IMPROVEMENTS
Project Number: 90009220
Subcontractor: FOR EXAMPLE USE ONLY

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

UNCONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT (Civil Code §8134)

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information

Name of Claimant:	FOR EXAMPLE USE ONLY
Name of Customer:	Skanska-Flatiron a Joint Venture
Job Location:	LAWAATMP ROADWAY IMPROVEMENTS, 5450 W 99th Place Los Angeles, CA, 90045 USA
Owner:	City of Los Angeles - Los Angeles World Airports (LAWA)
Through Date:	

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has received the following progress payment:

\$ _____

Exceptions

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Signature

Claimant's Signature:	_____
Claimant's Title:	_____
Date of Signature:	_____

EXHIBIT F

Project: **LAWAATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

UNCONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT (Civil Code §8138)

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information

Name of Claimant:	FOR EXAMPLE USE ONLY
Name of Customer:	Skanska-Flatiron a Joint Venture
Job Location:	LAWAATMP ROADWAY IMPROVEMENTS, 5450 W 99th Place Los Angeles, CA, 90045 USA
Owner:	City of Los Angeles - Los Angeles World Airports (LAWA)

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for all labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has been paid in full.

Exceptions

This document does not affect any of the following:

Disputed claims for extras in the amount of: \$ _____

Signature

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

EXHIBIT G

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

Bond No. _____

Premium \$ _____

PAYMENT BOND

OBLIGEE: Skanska-Flatiron a Joint Venture AGREEMENT NO.: 90009220.SAMPLE2

PRINCIPAL: FOR EXAMPLE USE ONLY

SURETY: _____

BOND AMOUNT: _____

PROJECT OWNER: City of Los Angeles - Los Angeles
World Airports (LAWA)

PROJECT: LAWA ATMP ROADWAY
IMPROVEMENTS

RECITALS

WHEREAS, Project Owner has awarded a contract (hereinafter called the "Prime Contract") to Obligee for LAWA ATMP ROADWAY IMPROVEMENTS; and

WHEREAS, Principal has entered into a written Subcontract with Obligee, dated February 16, 2023, to perform, as Subcontractor, certain portions of the work in connection with the Prime Contract, consisting of _____ [description of Subcontract work], which Subcontract is incorporated into this Performance Bond by reference and made a part of this Performance Bond.

PAYMENT GUARANTY

A. Principal and Surety, jointly and severally, bind themselves and their heirs, executors, administrators, successors and assigns to Obligee to guaranty Principal's payment to all persons supplying labor, material, and equipment in the prosecution of the work provided for in the Subcontract, and any modifications or changes to the Subcontract and to indemnify and hold harmless Obligee from all claims, demands, liens, suits, including attorney's fees and costs, by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Subcontract.

B. Surety agrees that no change, extension of time, alteration, addition, or other modification of the terms of either the Subcontract or the Prime Contract, or both, or in the work to be performed pursuant to the Subcontract or Prime Contract, or in the plans or specifications, shall affect its obligation on this Payment Bond and hereby waives notice of any such changes, extensions of time, alterations, additions, omissions, and other modifications.

C. This Payment Bond shall inure to the benefit of all persons supplying labor, material, and equipment in the prosecution of the work provided for in the Subcontract and that such persons may maintain independent actions upon this Payment Bond in their own names.

EXHIBIT G

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

D. Surety's liability under this Payment Bond shall not be greater than the Bond Amount. The amount of this Payment Bond shall be reduced by and to the extent of any payments made under this Payment Bond.

IN WITNESS WHEREOF, Surety and Principal hereby agree to the terms and conditions set forth in this Payment Bond.

PRINCIPAL: FOR EXAMPLE USE ONLY

By _____
Title _____
1955 Aqua Mansa
Riverside, CA, 92509
Address USA
Date _____

SURETY: _____
By _____
Title _____
Address _____
Date _____

NOTARIAL ACKNOWLEDGMENTS ATTACHED.

EXHIBIT G

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

Bond No. _____

Premium \$ _____

PERFORMANCE BOND

OBLIGEE: Skanska-Flatiron a Joint Venture AGREEMENT NO.: 90009220.SAMPLE2

PRINCIPAL: FOR EXAMPLE USE ONLY AGREEMENT TYPE:

SURETY: _____

BOND AMOUNT: _____

- ☐ Subcontract
- ☐ Professional Service Agreement
- ☐ Service Provider Agreement
- ☐ Purchase Agreement

PROJECT OWNER: City of Los Angeles - Los Angeles
World Airports (LAWA)

PROJECT: LAWA ATMP ROADWAY
IMPROVEMENTS

RECITALS

WHEREAS, Project Owner has awarded a contract (hereinafter called the "Prime Contract") to Obligee for LAWA ATMP ROADWAY IMPROVEMENTS [description of Project]; and

WHEREAS, Principal has entered into a written Subcontract with Obligee, dated February 16, 2023, to perform, as subcontractor, certain portions of the work in connection with the Prime Contract, consisting of _____ [description of Subcontract work], which Subcontract is incorporated into this Performance Bond by reference and made a part of this Performance Bond.

PERFORMANCE GUARANTY

A. Principal and Surety, jointly and severally, bind themselves and their heirs, executors, administrators, successors and assigns to Obligee to guaranty the performance of the Subcontract, all undertakings, covenants, terms, conditions, time limits, and agreements of the Subcontract, any modifications or changes to the Subcontract, any warranties required under the Subcontract as well as to indemnify and save harmless Obligee of and from any and all loss, damage, and expense, including costs and attorney's fees, which Obligee may sustain or incur by reason of the failure to perform the Subcontract.

B. Surety's liability under this Performance Bond shall not be greater than the Bond Amount. The amount of this Performance Bond shall be reduced by and to the extent of any payments made under this Performance Bond.

C. Surety agrees that no change, extension of time, alteration, addition, or other modification of the terms of either the Subcontract or the Prime Contract, or both, or in the work to be performed pursuant to the Subcontract or Prime Contract, or in the plans or specifications, shall affect its obligation on this Performance Bond and hereby waives notice of any such changes, extensions of time, alterations, additions, omissions, and other modifications.

EXHIBIT G

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: 90009220.SAMPLE2

D. If Obligor declares Principal to be in default of the Subcontract, upon demand by Obligor, Surety shall promptly and at its own expense, elect to:

1. Upon Obligor's approval, arrange for Principal to complete the Subcontract with financial, technical, or management assistance from Surety and/or its consultants;
2. Upon Obligor's approval, enter into a takeover agreement with Obligor and a completion subcontract with either Principal or a third party completion subcontractor in order to complete the Subcontract. If Surety enters into a completion subcontract with a third party completion subcontractor, Surety shall require the third party completion subcontractor to provide payment and performance bonds in the full amount of the completion contract naming Surety and Obligor as bond obligees;
3. Upon Obligor's approval, arrange completion of the Subcontract by tendering to Obligor (a) a completion subcontract, (b) a third party completion subcontractor, (c) payment for the difference between the remaining contract balance in the Subcontract and the third party completion subcontract price, and (d) payment and performance bonds in the full amount of the completion subcontract naming Obligor as bond obligee;
4. Upon Obligor's approval, arrange completion of the Subcontract by an alternate arrangement that assures completion of the Subcontract according to its terms and condition;
5. Pay Obligor's costs to complete the Subcontract without Surety involvement.
6. Cure Principal's default:
 - a. By arranging correction or replacement of any defective work;
 - b. By paying any subcontractors, suppliers, or laborers who have made claims against the Project;
 - c. By defending and indemnifying Obligor from any claims made by subcontractors, suppliers, laborers, or other third parties, arising out of Principal's performance of the Subcontract; and/or
 - d. By otherwise remedying any other default by Principal with Obligor's approval.

E. Upon Surety's agreement to arrange completion and/or to cure Principal's default, Obligor will agree to pay the balance of the Subcontract price to Surety or a completion subcontractor, as applicable, in accordance with the terms and conditions of the Subcontract.

F. Obligor agrees that, if there is a dispute as to whether Principal is in material default on the Subcontract and if Surety proceeds as described in Paragraph D, above, both Principal and Surety may reserve their rights to challenge Obligor's declaration of default.

G. No right of action shall accrue on this Performance Bond to any person or entity other than Obligor or successors and assigns.

EXHIBIT G

Project: **LAWAATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

H. Should it be necessary for Obligee to engage in any dispute resolution procedure, be in litigation, arbitration, or otherwise, to recover against Principal and/or Surety on this Performance Bond, Obligee shall be entitled to recover its actual attorney's fees, consultant and expert fees, and other costs from Surety.

IN WITNESS WHEREOF, Surety and Principal hereby agree to the terms and conditions set forth in this Performance Bond.

PRINCIPAL: FOR EXAMPLE USE ONLY

By _____
Title _____
1955 Aqua Mansa
Riverside, CA, 92509
Address USA
Date _____

SURETY _____
By _____
Title _____
Address _____
Date _____

NOTARIAL ACKNOWLEDGMENTS ATTACHED.

EXHIBIT H

Project: LAWAATMP ROADWAY IMPROVEMENTS
Project Number: 90009220
Subcontractor: FOR EXAMPLE USE ONLY

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

DBE PARTICIPATION REQUIREMENTS

Note: If this Exhibit is annexed to a Purchase Agreement, Service Provider Agreement or Professional Services Agreement, the term "Subcontract" herein shall mean and refer to such Purchase Agreement, Service Provider Agreement or Professional Services Agreement, as applicable.

For a Purchase Agreement, the term "Contractor" herein means "Buyer", the term "Subcontractor" herein means "Seller", the term "Sub-subcontractors" herein means "Sub-suppliers" and the term "Work" herein means "Materials," each as described in the Purchase Agreement.

For a Service Provider Agreement, the term "Subcontractor" herein means "Service Provider", the term "Sub-subcontractors" herein means "Sub-Service Providers" and the term "Work" herein means "Services", each as described in the Service Provider Agreement.

For a Professional Services Agreement, the term "Subcontractor" herein means "Service Provider" and the term "Sub-subcontractors" herein means "Sub-Service Providers," each as described in the Professional Services Agreement.

1. Owner's Program. As set forth in the Prime Contract and any related program rules incorporated therein by reference or by Applicable Law ("Owner's Program"), Contractor is required to make good faith efforts to meet or exceed Owner established Project contracting goals with persons or firms that have been duly certified as disadvantaged business enterprises ("DBEs"), local business-based enterprises ("LBEs"), minority business enterprises ("MBEs"), small business enterprises ("SBEs"), women owned business enterprises ("WBEs"), or other eligible certified business enterprises ("Other Enterprises"), as applicable to the Owner's Program (referred to collectively as "Disadvantaged Enterprises"). The terms "Disadvantaged Enterprises" is intended to include any entity which is certified to participate in any program(s) specified in the Owner Contract (or Developer Prime Contract, as applicable) in furtherance of or pursuant to Title VI of the Civil Rights Act of 1964, as amended, or any state or municipal act of similar purpose, or any rules or regulations promulgated under any thereof.

2. Participation Goals. Subcontractor acknowledges that the Owner (and/or Developer, as applicable) has established goals for this Project. In support of Contractor's efforts to reach those goals, Subcontractor shall meet or exceed the Disadvantaged Enterprise goal as a percentage of the value of its Subcontract amount for this Project.

If the Subcontract amount is increased as a result of change orders, Subcontractor shall achieve a commensurate increase in Subcontractor's Disadvantaged Enterprise Participation for the Project as fully set forth in Exhibit A attached hereto and made a part hereof.

Subcontractor shall ensure that qualified and certified Disadvantaged Enterprises are provided opportunities to compete for work under this Subcontract. Subcontractor shall carry out all requirements of Applicable Law in the award, administration and participation of certified Disadvantaged Enterprises to achieve the Subcontractor's Participation Goal. Contractor shall have the right to disqualify a Subcontractor proposed Disadvantaged Enterprise from Subcontractor's Participation Goal if, in Contractor's judgment, the Disadvantaged Enterprise would not qualify for Participation Credit under the Owner's Program, Prime Contract and/or Applicable Law. In such event, Subcontractor shall be required to make alternative arrangements to meet Subcontractor's Participation Goal.

3. Damages. The Owner Contract (or Developer Prime Contract, as applicable) provides or may provide for damages

with respect to a failure to achieve the Owner's Goal in accordance with the Owner's Program. To the extent that such damages are assessed against the Contractor, Subcontractor shall, on the same basis, be liable to Contractor for any such damages that are attributable to Subcontractor or anyone for whom Subcontractor is responsible, and such liability shall be without prejudice to any other remedies available to Contractor under the terms of the Subcontract, at law or in equity. In addition, the Subcontractor acknowledges and agrees that the Contractor is entering into this Subcontract in reliance upon Subcontractor's representations that it will meet or exceed the Subcontractor's Participation Goal. If the Subcontractor fails to meet or exceed the Subcontractor's Participation Goal, or the Contractor has reason to believe, in its sole discretion that the Subcontractor will not meet the Subcontractor's Participation Goal, at any time during the Project, the Contractor has the right to seek relief against the Subcontractor as a result of such failure, and to withhold monies until the Subcontractor provides the Contractor with a recovery plan, that is subject to Contractor's prior approval, evidencing that Subcontractor is or will be meeting the Subcontractor's Participation Goal. At a minimum, the Contractor has the right to withhold and/or affirmatively seek, at its discretion, the shortfall percentage of the Subcontractor's Participation Goal in relation to the Subcontract amount. By way of example, if the Subcontract amount is \$100,000, and the Subcontractor Participation Goal is 30%, but the Subcontractor only has Disadvantaged Enterprise utilization of 10%, Contractor, without prejudicing other rights it may have against Subcontractor, shall have the right to seek \$20,000 in damages against the Subcontractor, and/or deduct/withhold \$20,000 of the payment amounts to Subcontractor. In no event shall this remedy be exclusive.

4. Subcontractor's Participation Plan. Subcontractor agrees that, as a condition precedent to Contractor's obligation to pay Subcontractor under the terms herein, Subcontractor shall be required to submit to Contractor a Disadvantaged Business Enterprise Participation Plan ("Subcontractor's Participation Plan"), which such Plan, and any amendments thereto, shall be subject to the written approval of Contractor. Attached hereto as Exhibit H-1 is Subcontractor's Participation Plan for meeting Subcontractor's Participation Goal, which identifies, to the extent known, the certified Disadvantaged Enterprises that Subcontractor plans to engage to satisfy Subcontractor's Participation Goal, and which includes a copy of each identified Disadvantaged

EXHIBIT H

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

Enterprise's certification. Subcontractor warrants that each Disadvantaged Enterprise listed in Subcontractor's Plan is certified by the Owner or appropriate agency as of the execution date of this Subcontract for the Subcontractor's scope of work set forth in the Subcontract and Subcontractor shall be obliged to monitor the status thereof on not less than a monthly basis and to immediately advise Contractor in writing of any change in such certification status, scope of work or value of the subcontract of the Disadvantaged Enterprise. If Subcontractor is itself a Disadvantaged Enterprise, or if it reasonably knows or should know that Contractor is awarding the Work to it based in whole or in part upon its belief that Subcontractor is a Disadvantaged Enterprise, Subcontractor agrees that it shall fully self-perform the Subcontract Work except as otherwise provided herein, and it shall further provide to Contractor upon or before signature of this Subcontract a copy of its Disadvantaged Enterprise certification, and shall be further required to monitor the status thereof on not less than a monthly basis and to immediately advise Contractor in writing of any change in its certification status. Throughout the course of the Project and whenever requested by Contractor in writing, Subcontractor shall update the Subcontractor's Participation Plan, demonstrating the level of Disadvantaged Enterprise participation necessary to achieve Subcontractor's Participation Goal. Subcontractor represents with respect to each Disadvantaged Enterprise listed in its Subcontractor's Participation Plan that:

(a) based on information known to Subcontractor after reasonable inquiry, Subcontractor believes the person or business entity listed to be a bona fide Disadvantaged Enterprise within the meaning of the Owner's Program and it is independently, technically and financially qualified as well as properly certified to perform the scope of work or services specified in Subcontractor's Participation Plan; and,

(b) Subcontractor will enter into a written agreement with the Disadvantaged Enterprise or with an approved substitute (see Article 5 of this Exhibit for procedures to make changes to Subcontractor's Plan), subject to the terms and conditions of the Subcontract for the work described in Subcontractor's Participation Plan.

5. Procedure for Changes to Subcontractor's Plan and/or Utilization Reports. Subcontractor agrees that it will make no changes to Subcontractor's Participation Plan nor terminate an agreement with a Disadvantaged Enterprise identified in Subcontractor's Participation Plan or Utilization Reports without delivering written notice to Contractor at least five (5) business days in advance. Should a Disadvantaged Enterprise fail to complete its work for any reason, Subcontractor shall secure a replacement Disadvantaged Enterprise to attain the same type and amount of Participation Credit. In addition to the above, Subcontractor agrees that where required by the Owner's Contract, Owner's Program, Developer, Prime Contract (as applicable), or Applicable Law, Subcontractor shall not terminate, substitute or add a Disadvantaged Enterprise without the Contractor's (and/or Owner's or Developer's, as applicable) prior written approval.

6. Utilization Reports and Affidavits. Subcontractor shall submit to Contractor with each monthly estimate for payment a written utilization report (the "Utilization Report") in the form annexed hereto as Exhibit H-2 (or such Owner required reports such as B2G Now shall be deemed Exhibit H-2), listing all lower-

tier Disadvantaged Enterprises for which Subcontractor is seeking payment and identifying its progress towards meeting Subcontractor's Participation Goal.

In addition, Subcontractor shall furnish to Contractor a Disadvantaged Enterprise Affidavit ("Affidavit") in the form annexed hereto as Exhibit H-3 signed by each Disadvantaged Enterprise and verifying payment for which Subcontractor is claiming Participation Credit in any Utilization Report. The Affidavit shall be submitted by Subcontractor with the first estimate for payment/payment application that includes amounts payable to the Disadvantaged Enterprise(s). Subcontractor acknowledges that Contractor may withhold amounts allocable to the Disadvantaged Enterprise in said estimate for payment and any subsequent estimates for payment until such time as Subcontractor submits the Utilization Report and Affidavit on behalf of the Disadvantaged Business Enterprise(s).

Subcontractor acknowledges that Contractor shall have the right to further verify Subcontractor's payments to lower-tier Disadvantaged Enterprises identified in Subcontractor's Utilization Reports in order to track progress toward achievement of Subcontractor's Participation Goal.

Subcontractor understands that Contractor is relying upon the information contained in Subcontractor's Participation Plan, Utilization Reports and Affidavits. By submitting each Participation Plan, Utilization Report, and Affidavit, Subcontractor and each Disadvantaged Enterprise, as applicable, certifies that the information contained therein is current, full, truthful, accurate and complete to the best of the Subcontractor's knowledge, information and belief, and further represents and warrants to Contractor that it (they) is (are) in compliance with Applicable Law and Owner's Program. Subcontractor shall promptly notify Contractor should there be any material change to the Participation Plan, Utilization Reports or Affidavits submitted. The making of false statements and/or submission of incorrect information to Contractor in any of said documents constitutes a material breach of this Subcontract, which, at the option of Contractor, shall subject Subcontractor to the default and termination provisions of this Subcontract and any other remedies available to Contractor under the terms of this Subcontract, at law, or in equity.

7. Participation Shortfall and Good Faith Efforts. Subcontractor acknowledges that it must meet or exceed Subcontractor's Participation Goal. If Subcontractor is unable, after diligent inquiry, to identify a Disadvantaged Enterprise to perform a specific scope of work in furtherance of meeting Subcontractor's Participation Goal, Subcontractor shall notify Contractor in writing immediately so that Contractor may, if appropriate and as determined by Contractor in its discretion, request a waiver from the Owner (and/or Developer, as applicable) for the portion of Subcontractor's Participation Goal allocable to that scope. In such event, Subcontractor shall promptly furnish Contractor with documentation demonstrating its good faith efforts with respect to the scope of work that is the subject of the requested waiver.

8. Subcontractor's Compliance. Subcontractor shall comply with all Applicable Laws, including but not limited to those relating to the Owner's Program, and whether or not provided for by the Plans, Specifications, General Conditions, or other Contract

EXHIBIT H

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

Documents. Subcontractor shall remedy any violations or instances of non-compliance at its own expense, and shall, upon written demand by Contractor, furnish such evidence as Contractor (and/ or Owner or Developer, as applicable) may require demonstrating that such violation or non-compliance has been remedied. Subcontractor agrees that Contractor has the right, at no additional cost to Contractor, to direct Subcontractor to take necessary corrective and remedial actions.

9. Audit Rights. Subcontractor shall freely permit Contractor from time to time to audit Subcontractor's books and records during the duration of the Work and for a period of three years following acceptance by Owner (and/or Developer, as applicable) of the Work and/or the official termination of any governmental audit, investigation or inquiry, for the purpose of verifying Subcontractor's bona fide participation and performance of a commercially useful function in connection with the Project Work or Work under this Subcontract. Subcontractor shall require any Disadvantaged Enterprise to whom it sublets a portion of the Work to provide in its Sub-subcontract, the same rights to Contractor and Subcontractor.

10. Severability. The invalidity of any term or provision of this Exhibit H, with attachments Exhibits H-1, H-2 or H-3, whether declared invalid by a court or otherwise, shall not affect the validity of any other term or provision of this Subcontract, including the other exhibits or appendices thereto.

EXHIBIT H-1

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
 Project Number: 90009220
 Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
 Agreement Number: 90009220.SAMPLE2

EXHIBIT H-1
Subcontractor's Participation Plan

Project Name:

Subcontractor Name:

Subcontract no.:

Subcontract for:

Report prepared by:

Contact name:

Reporting Period:

Current Contract Value:

Combined Goal: (%) \$0 (\$)

Projected Amount: 0.0% (%) \$0 (\$)

Approved Waivers (Yes/No)? (If "Yes," explain below)

Disadvantaged Enterprise Name	Scope of Work	Tier Level (Drop-down)	Certification (Drop-down)	Projected Contract Amount	Projected %	Committed Contract Amount	Committed %
		Select	ANC		#DIV/0!		#DIV/0!
		Select	ANC		#DIV/0!		#DIV/0!
		Select	DBE		#DIV/0!		#DIV/0!
		Select	DBE		#DIV/0!		#DIV/0!
		Select	HUB		#DIV/0!		#DIV/0!
		Select	HUB		#DIV/0!		#DIV/0!
		Select	Select		#DIV/0!		#DIV/0!
		Select	Select		#DIV/0!		#DIV/0!
		Select	Select		#DIV/0!		#DIV/0!
		Select	MBE		#DIV/0!		#DIV/0!
		Select	Select		#DIV/0!		#DIV/0!
		Select	WBE		#DIV/0!		#DIV/0!
Totals						\$0	

Summary						
Category	Participation Goals		Projected Amounts		Committed Amounts	
	Input %	Amount	%	Amount	%	Amount
ANC		\$0	#DIV/0!	\$0	#DIV/0!	\$0
DBE		\$0	#DIV/0!	\$0	#DIV/0!	\$0
HUB		\$0	#DIV/0!	\$0	#DIV/0!	\$0
HUBzone		\$0	#DIV/0!	\$0	#DIV/0!	\$0
Indian		\$0	#DIV/0!	\$0	#DIV/0!	\$0
LBE		\$0	#DIV/0!	\$0	#DIV/0!	\$0
LGBT		\$0	#DIV/0!	\$0	#DIV/0!	\$0
MBE		\$0	#DIV/0!	\$0	#DIV/0!	\$0
SBE		\$0	#DIV/0!	\$0	#DIV/0!	\$0
Veteran		\$0	#DIV/0!	\$0	#DIV/0!	\$0
Veteran Disabled		\$0	#DIV/0!	\$0	#DIV/0!	\$0
WBE		\$0	#DIV/0!	\$0	#DIV/0!	\$0
Totals				\$0		\$0
				OK		OK

Comments

Skanska-Flatiron a Joint Venture
Agreement Number: 90009220.SAMPLE2

EXHIBIT H-3

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

DISADVANTAGED ENTERPRISE AFFIDAVIT

Consistent with the Contractor's Disadvantaged Enterprises Participation Requirements for the above-referenced Project, this Disadvantaged Enterprise Affidavit (hereinafter "Affidavit") is required to be completed by every Disadvantaged Enterprise (as defined in EXHIBIT H of the Subcontract / Purchase Agreement / Service Provider Agreement / Professional Services Agreement) for which participation credit is being claimed under the Owner's Program for this Project. This Affidavit must be signed by an authorized officer of the Disadvantaged Enterprise, notarized, and then included ONLY with the first estimate for payment or invoice submitted to the Contractor by the Subcontractor/Seller/Service Provider that includes amounts allocable to the Disadvantaged Enterprise. Contractor may withhold amounts allocable to the Disadvantaged Enterprise under the first estimate for payment or invoice (or any subsequent estimate for payment or invoice) until this Affidavit is received by Contractor.

Enterprise Name: _____ (hereinafter the "Enterprise")

Enterprise Phone: _____

Enterprise Address: _____

Email Address for Contact Person: _____

I, _____ (name), being duly sworn, am employed by the
aforementioned Enterprise as _____ (title) for the Enterprise and depose and say:

As of the date of this Affidavit, the Enterprise holds the following valid and current certifications for which utilization credit is being claimed under the Owner's Program for this Project (circle all that apply):

DBE LBE MBE SBE WBE Other: _____

For each certification identified above, identify the name of the certifying agency:

For each certification identified above, attached hereto are true and accurate copies of documents issued by the certifying agency confirming said certification. (attached documents)

Have you ever been de-certified or otherwise lost your certification (e.g. graduated from Owner's Program)? (circle one)

a. Yes b. No

If the answer to this question is "Yes", please attach a written explanation of the change in status and identify the date on which the Enterprise ceased to be certified.

EXHIBIT H-3

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**
Project Number: 90009220
Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

Does the Enterprise intend to subcontract or in any other way use another entity ("Other Entity") to perform any portion of the Enterprise's work on this Project? (circle one)

a. Yes b. No

If the answer to this question is "Yes", please attach the following information:

- o Name of the Other Entity;
- o Comprehensive description of the work the Other Entity will perform;
- o Exact dollar value of the Other Entity's work;
- o Explanation of the reason the Enterprise will not perform the work;
- o State whether the Enterprise notified Subcontractor and Contractor of its intention to engage Other Entity for this work and if so provide a copy of such notification;
- o State whether and explain to what extent there is any relationship between the Enterprise and the Other Entity; such as an ownership interest, shared facilities, employees or equipment; and,
- o Provide a copy of the agreement between the Enterprise and the Other Entity for this work.

Is the Enterprise compliant with all Applicable Laws, including those but not limited to those relating to the Owner's Program, as of the date of the execution of this Affidavit? (circle one)

a. Yes b. No

Enterprise agrees that, if any of the Enterprise's circumstances materially change causing modifications to any answers provided in this form, then the Enterprise has an affirmative duty and must immediately notify the Subcontractor with whom the Enterprise is contracted and the Contractor, in writing, at the time such information changes. Such updated information shall be certified by the Enterprise as current, full, accurate and complete when submitted.

I, an Officer of the Enterprise, hereby certify that I have supplied current, full, truthful, accurate and complete responses to each item in this form on behalf of the Enterprise to the best of my knowledge, information and belief. The Enterprise and I understand that both the Subcontractor with whom the Enterprise is contracted and the Contractor will rely upon the information supplied in this Affidavit in claiming Disadvantaged Enterprise participation credit under the Owner's Program for the Project.

Signature: _____

Printed Name: _____

Officer Title: _____

Date: _____

EXHIBIT J

Project: LAWA ATMP ROADWAY IMPROVEMENTS

Project Number: 90009220

Subcontractor: FOR EXAMPLE USE ONLY

Skanska-Flatiron a Joint Venture

Agreement Number: 90009220.SAMPLE2

CONTRACT CHANGE ORDER

Project **LAWA ATMP ROADWAY IMPROVEMENTS**
Project No. 90009220
Owner City of Los Angeles - Los Angeles
World Airports (LAWA)

Skanska-Flatiron a Joint Venture

Change Order No.

CO Effective Date

Subcontractor **FOR EXAMPLE USE ONLY**
Subcontractor Address

1955 Aqua Mansa
Riverside, CA, 92509
USA

Agreement Number: **90009220.SAMPLE2**

Agreement Type:

Subcontract Agreement – OS
Purchase Agreement MM

Professional Services Agreement – OS
Service Provider Agreement MS

The agreement referred to above is changed as set forth below. Only those terms specifically set forth herein are changed and all other terms, conditions, provisions, and covenants of the original agreement shall remain in full force and effect.

The Agreement is hereby changed as follows:

ITEM	COST CODE	DESCRIPTION	QTY	UM	UP	Total
					Sum:	

Total Not to Exceed

\$

Amount Written Out:

Dollars

Scope of Work:

CURRENT SUMMARY OF SUBCONTRACT PRICE

Original Agreement	
Change Orders No. 1 to 1	
This Change (Not To Be Exceeded)	
REVISED PRICE	\$ -

In exchange for the additional compensation and/or time (if any) reflected in this Change Order, Subcontractor waives any and all rights to claim additional compensation or time for any Work associated with this Change Order. This Change Order constitutes compensation in full for all costs, claims, expenses, and markups directly and indirectly attributable to the changes ordered herein, including all delay, disruption, suspension, stoppage, interference, compression, acceleration, cumulative impacts, or loss of efficiency encountered by Subcontractor in the performance of the Work reflected in this Change Order. It constitutes an accord and satisfaction of all amounts and time claimed, or which could have been claimed, in connection with the changed Work, and no additional compensation or time shall be allowed therefor.

EXHIBITS. All terms, conditions, obligations, and documents incorporated by reference in the following exhibits, if any, are incorporated into this Agreement.

None

CONTRACTOR:
SKANSKA-FLATIRON A JOINT VENTURE

SUBCONTRACTOR:
FOR EXAMPLE USE ONLY

BY: _____

BY: _____

DATE: _____

DATE: _____

CONTRACT CHANGE ORDER

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

CO Number: 90009220.SAMPLE2

NAME: _____

TITLE: _____

NAME: _____

TITLE: _____

Sample

EXHIBIT L

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

Federal Requirements

Part A

FEDERAL PROVISIONS

See Exhibit L-1



Federal Requirements

FEDERAL REQUIREMENTS

TABLE OF CONTENTS

Section No.	Title
FR - 1	Access to Records and Reports
FR - 2	Affirmative Action Requirement
FR - 3	Breach of Contract
FR - 4	Buy American Preferences
FR - 5	Civil Rights - General
FR - 6	Civil Rights - Title VI Assurances
FR - 7	Clean Air/Water Pollution Control
FR - 8	Contract Workhours and Safety Standards
FR - 9	Copeland Anti-Kickback
FR - 10	Davis Bacon Requirements
FR - 11	Debarment and Suspension
FR - 12	Disadvantaged Business Enterprise
FR - 13	Distracted Driving
FR - 14	Energy Conservation Requirements
FR - 15	Equal Employment Opportunity
FR - 16	Federal Fair Labor Standards Act
FR - 17	Foreign Trade Restriction
FR - 18	Lobbying and Influencing Federal Employees

Section No.	Title
FR - 19	Occupational Safety and Health Act
FR - 20	Prohibition of Segregated Facilities
FR - 21	Recycled Materials
FR - 22	<i>LIMITED</i> Rights to Inventories
FR - 23	<i>LIMITED</i> Seismic Safety
FR - 24	Tax Delinquent and Felony Conviction
FR - 25	Termination of Contract
FR - 26	Veteran's Preference

END OF TABLE OF CONTENTS

FEDERAL REQUIREMENT: FR-1

ACCESS TO RECORDS AND REPORTS

2 CFR § 200.333, 2 CFR § 200.336, FAA Order 5100.38

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Sponsor, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

This provision must be included in all contracts and subcontracts.

FEDERAL REQUIREMENT: FR-2

AFFIRMATIVE ACTION REQUIREMENT

41 CFR part 60-4, Executive Order 11246

1. The Contractor's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables:

Goals for minority participation for each trade: 28.3%

Goals for female participation in each trade 6.9%

These goals are applicable to all of the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is Los Angeles World Airports, City of Los Angeles, County of Los Angeles, California.

FEDERAL REQUIREMENT: FR-3

BREACH OF CONTRACT

2 CFR § 200 Appendix II(A)

Any violation or breach of terms of this contract on the part of the Contractor or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement.

Owner will provide Contractor written notice that describes the nature of the breach and corrective actions the Contractor must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Contractor until such time the Contractor corrects the breach or the Owner elects to terminate the contract. The Owner's notice will identify a specific date by which the Contractor must correct the breach. Owner may proceed with termination of the contract if the Contractor fails to correct the breach by the deadline indicated in the Owner's notice.

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

FEDERAL REQUIREMENT: FR-4

BUY AMERICAN PREFERENCES

Title 49 USC § 50101

4.3.1. Buy American Preference

The Contractor agrees to comply with 49 USC § 50101, which provides that Federal funds may not be obligated unless all steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

A bidder or offeror must complete and submit the Buy America certification included herein with their bid or offer. The Owner will reject as nonresponsive any bid or offer that does not include a completed Certificate of Buy American Compliance.

The Buy America requirements flow down from the owner to first tier contractors, who are responsible for ensuring that lower tier contractors and subcontractors are also in compliance. The Buy American Preference does not apply to equipment a contractor uses as a tool of its trade and which does not remain as part of the project.

4.3.2. Certificate of Buy American Compliance - Total Facility

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with its proposal. The bidder or offeror must indicate how it intends to comply with 49 USC § 50101 by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (i.e. not both) by inserting a checkmark (☐) or the letter "X".

- ☐ Bidder or offeror hereby certifies that it will comply with 49 USC § 50101 by:
- a) Only installing steel and manufactured products produced in the United States; or
 - b) Installing manufactured products for which the Federal Aviation Administration (FAA) has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
 - c) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

- To provide to the Owner evidence that documents the source and origin of the steel and manufactured product.
 - To faithfully comply with providing U.S. domestic products.
 - To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.
- ☐ The bidder or offeror hereby certifies it cannot comply with the 100 percent Buy American Preferences of 49 USC § 50101(a) but may qualify for either a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:
- a) To submit to the Owner within 15 calendar days of the bid opening, a formal waiver request and required documentation that supports the type of waiver being

requested.

- b) That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination that may result in rejection of the proposal.
- c) To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.
- d) To furnish U.S. domestic product for any waiver request that the FAA rejects.
- e) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

Required Documentation

Type 3 Waiver - The cost of components and subcomponents produced in the United States is more than 60 percent of the cost of all components and subcomponents of the "facility". The required documentation for a Type 3 waiver is:

- a) Listing of all manufactured products that are not comprised of 100 percent U.S. domestic content (excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety).
- b) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly and installation at project location.
- c) Percentage of non-domestic component and subcomponent cost as compared to total "facility" component and subcomponent costs, excluding labor costs associated with final assembly and installation at project location.

Type 4 Waiver – Total cost of project using U.S. domestic source product exceeds the total project cost using non-domestic product by 25 percent. The required documentation for a Type 4 of waiver is:

- a) Detailed cost information for total project using U.S. domestic product.
- b) Detailed cost information for total project using non-domestic product.

False Statements: Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

Date

Signature

Company Name

Title

FEDERAL REQUIREMENT: FR-5

CIVIL RIGHTS - GENERAL

49 USC § 47123

The Contractor agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

FEDERAL REQUIREMENT: FR-6

CIVIL RIGHTS - TITLE VI ASSURANCES

49 USC § 47123, FAA Order 1400.11

The City of Los Angeles, Los Angeles World Airports, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor"), agrees as follows:

1. **Compliance with Regulations:** The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a Contractor's noncompliance with the non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
 - a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of

equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 et seq.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 et seq.) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 USC §§ 12131 – 12189) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration's Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;

- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC 1681 et seq).

FEDERAL REQUIREMENT: FR-7

CLEAN AIR/WATER POLLUTION CONTROL

2 CFR § 200, Appendix II(G)

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 USC § 740-7671q) and the Federal Water Pollution Control Act as amended (33 USC § 1251-1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

Contractor must include this requirement in all subcontracts that exceeds \$150,000.

FEDERAL REQUIREMENT: FR-8

CONTRACT WORKHOURS AND SAFETY STANDARDS

2 CFR § 200, Appendix II(E)

1. Overtime Requirements: No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
2. Violation; Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph (1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this clause, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this clause.
3. Withholding for Unpaid Wages and Liquidated Damages: The Federal Aviation Administration (FAA) or the Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this clause.
4. Subcontractors: The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this clause.

Contract Workhours and Safety Standards Act Requirements (CWHSSA) prohibits unsanitary, hazardous, or dangerous working conditions on federally assisted projects. The Wage and Hour Division (WHD) within the U.S. Department of Labor (DOL) enforces the compensation requirements of this Act, while DOL's Occupational Safety and Health Administration (OSHA) enforces the safety and health requirements. This provision applies to all contracts and lower tier contracts that exceed \$100,000, and employ laborers, mechanics, watchmen, and guards. This provision applies to any equipment project exceeding \$100,000 that involves installation of equipment onsite (e.g. electrical vault equipment). This provision does not apply to equipment acquisition projects where the manufacture of the equipment takes place offsite at the vendor plant (e.g. ARFF and SRE vehicles). This provision applies to professional service agreements that exceed \$100,000 and employs laborers, mechanics, watchmen, and guards. This includes members of survey crews and exploratory drilling operations.

FEDERAL REQUIREMENT: FR-9

COPELAND ANTI-KICKBACK ACT

2 CFR § 200, Appendix II(D), 29 CFR Parts 3 and 5

Contractor must comply with the requirements of the Copeland "Anti-Kickback" Act (18 USC 874 and 40 USC 3145), as supplemented by Department of Labor regulation 29 CFR part 3. Contractor and subcontractors are prohibited from inducing, by any means, any person employed on the project to give up any part of the compensation to which the employee is entitled. The Contractor and each Subcontractor must submit to the Owner, a weekly statement on the wages paid to each employee performing on covered work during the prior week. Owner must report any violations of the Act to the Federal Aviation Administration.

This provision applies to all construction contracts and subcontracts that exceed \$2,000. This provision applies to all equipment installation projects (e.g. electrical vault improvements) that exceed \$2,000. This provision does not apply to equipment acquisitions where the equipment is manufactured at the vendor's plant (e.g. SRE and ARFF vehicles). Professional Service Agreements (PSAs) that include tasks that meet the definition of construction, alteration, or repair as defined in 29 CFR Part 5 and exceeds \$2,000 must incorporate the Copeland Anti-kickback provision.

FEDERAL REQUIREMENT: FR-10

DAVIS BACON REQUIREMENTS 2 CFR § 200, Appendix II(D), 29 CFR Part 5

1. Minimum Wage: (i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination;
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the Contractor, the laborers, or mechanics to be employed in the classification, or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program: Provided that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding: The Federal Aviation Administration or the sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to the Contractor, Sponsor, Applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.
3. Payrolls and Basic Records: (i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records that show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan

or program has been communicated in writing to the laborers or mechanics affected, and that show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant, Sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at www.dol.gov/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit them to the applicant, sponsor, or Owner, as the case may be, for transmission to the Federal Aviation Administration, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, Sponsor, or Owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) The payroll for the payroll period contains the information required to be provided under 29 CFR § 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR § 5.5(a)(3)(i), and that such information is correct and complete;

(2) Each laborer and mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations 29 CFR Part 3;

(3) Each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The Contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the sponsor, the Federal Aviation Administration, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, Sponsor, applicant, or Owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees: (i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the

plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination that provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal Employment Opportunity. The utilization of apprentices, trainees, and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act Requirements: The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.
6. Subcontracts: The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR Part 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.
7. Contract Termination Debarment: A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
8. Compliance with Davis-Bacon and Related Act Requirements: All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.
9. Disputes Concerning Labor Standards: Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.
10. Certification of Eligibility: (i) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 USC 1001.

This shall be incorporated into all construction contracts and subcontracts that exceed \$2,000. This provision applies to all equipment installation projects (e.g. electrical vault improvements) that exceed \$ 2,000. This provision does not apply to equipment acquisitions where the equipment is manufactured at the vendor's plant (e.g. SRE and ARFF vehicles). Professional Service Agreements (PSAs) including tasks that meet the definition of construction, alteration, or repair as defined in 29 CFR Part that exceed \$2,000 must incorporate this clause. Fencing projects that exceed \$2,000 must include this provision.

FEDERAL REQUIREMENT: FR-11

DEBARMENT AND SUSPENSION

2 CFR part 180 (Subpart C), 2 CFR part 1200, DOT Order 4200.5

CERTIFICATION OF OFFERER/BIDDER REGARDING DEBARMENT

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>
2. Collecting a certification statement similar to the Certification of Offerer /Bidder Regarding Debarment, above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the Federal Aviation Administration later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

This requirement applies to covered transactions, which are defined in 2 CFR part 180. AIP funded contracts are non-procurement transactions, as defined by §180.970. Covered transactions include any AIP-funded contract, regardless of tier, that is awarded by a contractor, subcontractor, supplier, consultant, or its agent or representative in any transaction, if the amount of the contract is expected to equal or exceed \$25,000.

FEDERAL REQUIREMENT: FR-12

DISADVANTAGED BUSINESS ENTERPRISE

49 CFR part 26

The requirements of 49 CFR part 26 apply to this contract. It is the policy of the City of Los Angeles, Los Angeles World Airports to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. The Owner encourages participation by all firms qualifying under this solicitation regardless of business size or ownership.

Contract Assurance (§ 26.13): The Contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of Department of Transportation-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Owner deems appropriate, which may include, but is not limited to:

1. Withholding monthly progress payments
2. Assessing sanctions
3. Liquidated damages; and/or
4. Disqualifying the Contractor from future bidding as non-responsible

Prompt Payment (§26.29): The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than seven days from the receipt of each payment the prime contractor receives from City of Los Angeles, Los Angeles World Airports. The prime contractor agrees further to return retainage payments to each subcontractor within seven days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the City of Los Angeles, Los Angeles World Airports. This clause applies to both DBE and non-DBE subcontractors.

Information Submitted as a matter of bidder responsiveness:

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR §26.53.

As a condition of bid responsiveness, the Bidder or Offeror must submit the following information with its proposal on the forms provided herein:

- 1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- 2) A description of the work that each DBE firm will perform;
- 3) The dollar amount of the participation of each DBE firm listed under (1)
- 4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal; and
- 5) If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26.

Information submitted as a matter of bidder responsibility:

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR §26.53.

The successful Bidder or Offeror must provide written confirmation of participation from each of the DBE firms the Bidder or Offeror lists in its commitment within five days after bid opening

- 1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- 2) A description of the work that each DBE firm will perform;
- 3) The dollar amount of the participation of each DBE firm listed under (1)
- 4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal; and
- 5) If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26.

FEDERAL REQUIREMENT: FR-13

DISTRACTED DRIVING

Executive Order 13513, DOT Order 3902.10

Contractor is to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding \$3,500 that involve driving a motor vehicle in performance of work activities associated with the project.

FEDERAL REQUIREMENT: FR-14

ENERGY CONSERVATION REQUIREMENTS

2 CFR § 200, Appendix II(H)

Contractor and Subcontractor agree to comply with mandatory standards and policies relating to energy efficiency as contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 USC 6201et seq).

FEDERAL REQUIREMENT: FR-15

EQUAL EMPLOYMENT OPPORTUNITY

2 CFR 200, Appendix II(C), 41 CFR § 60-1.4, 41 CFR § 60-4.3, Executive Order 11246

EQUAL OPPORTUNITY CLAUSE

During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identify, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff, or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

(3) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the

EQUAL EMPLOYMENT OPPORTUNITY SPECIFICATION

1. As used in these specifications:

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
- d. "Minority" includes:
 - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race);
 - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (4) American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR part 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors shall be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the Contractor has a collective bargaining agreement to refer either minorities or

women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the Contractor during the training period and the Contractor shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or female sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
 - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female

- employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions, including specific review of these items, with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
 - h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.
 - i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students; and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
 - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.
 - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.
 - l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
 - m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor union, contractor community, or other similar groups of which the Contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on

the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, if the particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally), the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR part 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g. those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

The equal opportunity contract clause must be included in any contract or subcontract when the amount exceeds \$10,000. Once the equal opportunity clause is determined to be applicable, the

contract or subcontract must include the clause for the remainder of the year, regardless of the amount or the contract. The contract and specification language must be incorporated in all construction contracts and subcontracts that exceed \$10,000.

FEDERAL REQUIREMENT: FR-16

FEDERAL FAIR LABOR STANDARDS ACT

29 USC § 201, et seq

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.

The Contractor has full responsibility to monitor compliance to the referenced statute or regulation. The Contractor must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

All consultants, sub-consultants, contractors, and subcontractors employed under this federally assisted project must comply with the FLSA. 29 CFR § 213 exempts professional services employees in a bona fide executive, administrative or professional capacity. Because professional firms employ individuals that are not covered by this exemption, the sponsor's agreement with a professional services firm must include the FLSA provision.

FEDERAL REQUIREMENT: FR-17

FOREIGN TRADE RESTRICTION

49 USC § 50104, 49 CFR part 30

This language must be used in all contracts and subcontracts without modification.

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror:

- 1) is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR);
- 2) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and
- 3) has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18 USC Section 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to an Offeror or subcontractor:

- 1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR or
- 2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list or
- 3) who incorporates in the public works project any product of a foreign country on such USTR list

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The Contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by USTR, unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration (FAA) may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

FEDERAL REQUIREMENT: FR-18

LOBBYING AND INFLUENCING FEDERAL EMPLOYEES

31 USC § 1352 – Byrd Anti-Lobbying Amendment, 2 CFR part 200, Appendix II(J), 49 CFR part 20, Appendix A

The Bidder or Offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Bidder or Offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

FEDERAL REQUIREMENT: FR-19

OCCUPATIONAL SAFETY AND HEALTH ACT

29 CFR part 1910

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. The employer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The employer retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (29 CFR Part 1910). The employer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor - Occupational Safety and Health Administration.

FEDERAL REQUIREMENT: FR-20

PROHIBITION OF SEGREGATED FACILITIES

41 CFR § 60

(a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Employment Opportunity clause in this contract.

b) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Employment Opportunity clause of this contract.

FEDERAL REQUIREMENT: FR-21

RECYCLED MATERIALS

2 CFR § 200.322, 40 CFR part 247, Solid Waste Disposal Act

Contractor and subcontractor agree to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and the regulatory provisions of 40 CFR Part 247. In the performance of this contract and to the extent practicable, the Contractor and subcontractors are to use products containing the highest percentage of recovered materials for items designated by the Environmental Protection Agency (EPA) under 40 CFR Part 247 whenever:

- 1) The contract requires procurement of \$10,000 or more of a designated item during the fiscal year; or
- 2) The contractor has procured \$10,000 or more of a designated item using Federal funding during the previous fiscal year

The list of EPA-designated items is available at www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products.

Section 6002(c) establishes exceptions to the preference for recovery of EPA-designated products if the contractor can demonstrate the item is:

- a) Not reasonably available within a timeframe providing for compliance with the contract performance schedule;
- b) Fails to meet reasonable contract performance requirements; or
- c) Is only available at an unreasonable price.

FEDERAL REQUIREMENT: FR-22
LIMITED
RIGHTS TO INVENTORIES

2 CFR § 200, Appendix II(F), 37 CFR §401

Contracts or agreements that include the performance of experimental, developmental, or research work must provide for the rights of the Federal Government and the Owner in any resulting invention as established by 37 CFR part 401, Rights to Inventions Made by Non-profit Organizations and Small Business Firms under Government Grants, Contracts, and Cooperative Agreements. This contract incorporates by reference the patent and inventions rights as specified within 37 CFR §401.14. Contractor must include this requirement in all sub-tier contracts involving experimental, developmental, or research work.

FEDERAL REQUIREMENT: FR-23
LIMITED
SEISMIC SAFETY
49 CFR part 41

Construction Contracts

The Contractor agrees to ensure that all work performed under this contract, including work performed by subcontractors, conforms to a building code standard that provides a level of seismic safety substantially equivalent to standards established by the National Earthquake Hazards Reduction Program (NEHRP). Local building codes that model their code after the current version of the International Building Code (IBC) meet the NEHRP equivalency level for seismic safety.

Professional Service Agreements for Design

In the performance of design services, the Consultant agrees to furnish a building design and associated construction specification that conform to a building code standard that provides a level of seismic safety substantially equivalent to standards as established by the National Earthquake Hazards Reduction Program (NEHRP). Local building codes that model their building code after the current version of the International Building Code (IBC) meet the NEHRP equivalency level for seismic safety. At the conclusion of the design services, the Consultant agrees to furnish the Owner a "certification of compliance" that attests conformance of the building design and the construction specifications with the seismic standards of NEHRP or an equivalent building code.

This provision applies to any contract involved in the construction of new buildings or structural addition to existing buildings.

FEDERAL REQUIREMENT: FR-24

TAX DELINQUENT AND FELONY CONVICTION

Sections 415 and 416 of Title IV, Division L of the Consolidated Appropriations Act, 2014 (Pub. L. 113-76), DOT Order 4200.6 - Requirements for Procurement and Non-Procurement Regarding Tax Delinquency and Felony Convictions

The applicant must complete the two certification statements on the RF-24 Tax Delinquency and Felony Conviction Forms. The applicant must indicate its current status as it relates to tax delinquency and felony conviction by inserting a checkmark (✓) in the space following the applicable response on the forms. The applicant agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

Term Definitions

Felony conviction: Felony conviction means a conviction within the preceding twenty-four (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 U.S.C. § 3559.

Tax Delinquency: A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

FEDERAL REQUIREMENT: FR-25

TERMINATION OF CONTRACT

2 CFR § 200 Appendix II(B), FAA Advisory Circular 150/5370-10, Section 80-09

Termination for Convince (Construction & Equipment Contracts)

The Owner may terminate this contract in whole or in part at any time by providing written notice to the Contractor. Such action may be without cause and without prejudice to any other right or remedy of Owner. Upon receipt of a written notice of termination, except as explicitly directed by the Owner, the Contractor shall immediately proceed with the following obligations regardless of any delay in determining or adjusting amounts due under this clause:

1. Contractor must immediately discontinue work as specified in the written notice.
2. Terminate all subcontracts to the extent they relate to the work terminated under the notice.
3. Discontinue orders for materials and services except as directed by the written notice.
4. Deliver to the Owner all fabricated and partially fabricated parts, completed and partially completed work, supplies, equipment and materials acquired prior to termination of the work, and as directed in the written notice
5. Complete performance of the work not terminated by the notice.
6. Take action as directed by the Owner to protect and preserve property and work related to this contract that Owner will take possession.

Owner agrees to pay Contractor for:

- 1) completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination;
- 2) documented expenses sustained prior to the effective date of termination in performing work and furnishing labor, materials, or equipment as required by the contract documents in connection with uncompleted work;
- 3) reasonable and substantiated claims, costs, and damages incurred in settlement of terminated contracts with Subcontractors and Suppliers; and
- 4) reasonable and substantiated expenses to the Contractor directly attributable to Owner's termination action.

Owner will not pay Contractor for loss of anticipated profits or revenue or other economic loss arising out of or resulting from the Owner's termination action.

The rights and remedies this clause provides are in addition to any other rights and remedies provided by law or under this contract.

Termination for Default (Construction)

Section 80-09 of FAA Advisory Circular 150/5370-10 establishes conditions, rights, and remedies associated with Owner termination of this contract due to default of the Contractor.

Termination for Default (Equipment)

The Owner may, by written notice of default to the Contractor, terminate all or part of this Contract if the Contractor:

1. Fails to commence the Work under the Contract within the time specified in the Notice- to-Proceed;

2. Fails to make adequate progress as to endanger performance of this Contract in accordance with its terms;
3. Fails to make delivery of the equipment within the time specified in the Contract, including any Owner approved extensions;
4. Fails to comply with material provisions of the Contract;
5. Submits certifications made under the Contract and as part of their proposal that include false or fraudulent statements; or
6. Becomes insolvent or declares bankruptcy.

If one or more of the stated events occur, the Owner will give notice in writing to the Contractor and Surety of its intent to terminate the contract for cause. At the Owner's discretion, the notice may allow the Contractor and Surety an opportunity to cure the breach or default.

If within [10] days of the receipt of notice, the Contractor or Surety fails to remedy the breach or default to the satisfaction of the Owner, the Owner has authority to acquire equipment by other procurement action. The Contractor will be liable to the Owner for any excess costs the Owner incurs for acquiring such similar equipment.

Payment for completed equipment delivered to and accepted by the Owner shall be at the Contract price. The Owner may withhold from amounts otherwise due the Contractor for such completed equipment, such sum as the Owner determines to be necessary to protect the Owner against loss because of Contractor default.

Owner will not terminate the Contractor's right to proceed with the Work under this clause if the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such acceptable causes include: acts of God, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, and severe weather events that substantially exceed normal conditions for the location.

If, after termination of the Contractor's right to proceed, the Owner determines that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the Owner issued the termination for the convenience the Owner.

The rights and remedies of the Owner in this clause are in addition to any other rights and remedies provided by law or under this contract.

FEDERAL REQUIREMENT: FR-26

VETERAN'S PREFERENCE

49 USC § 47112(c)

In the employment of labor (excluding executive, administrative, and supervisory positions), the Contractor and all sub-tier contractors must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 USC 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

Exhibit F:

Project Labor Agreement

**LOS ANGELES DEPARTMENT OF
AIRPORTS CONSTRUCTION
PROJECT LABOR AGREEMENT**

2020 AMENDMENT

**2020 AMENDMENT TO THE
LOS ANGELES DEPARTMENT OF AIRPORTS CONSTRUCTION
PROJECT LABOR AGREEMENT**

Parsons Constructors Inc. ("Parsons") and the Los Angeles/Orange Counties Building and Constructions Trades Council ("Council") on behalf of itself and on behalf of the Unions signing this Agreement, hereby agree to amend their Project Labor Agreement ("PLA") as follows:

1. Page 2 of the Table of Contents (which lists the Attachment and Addenda) is hereby deleted in its entirety and replaced with the following:

Attachment 1
Letter of Assent (Revised)

Addendum No. 1 (Revised per Item 18 of this 2020
Amendment) May 1, 2000 Letter of Clarification

Addendum No. 2 (Superseded by Item 8 of this 2020 Amendment)
Morgan, Lewis & Bockius April 16, 2001 letter
(Permanent Arbitrators)

Addendum No. 3 (Superseded by Item 8 of this 2020 Amendment)
Memorandum of Understanding
(List of Available Arbitrators)

Addendum No. 4
Parsons' December 14, 1999 letter
(Redi-mix material delivery)

Addendum No. 5
Parsons' December 9, 1999 letter
(Elevator Union Clarification)

Addendum No. 6
December 3, 2010 PLA Amendment
(Extension of Agreement/Duration)

Addendum No. 7
December 2010 Clarification
(Hiring Obligations)

Addendum No. 8
Craft Employee Request Form

Addendum No. 9
Resolution No. 24316
(Additional Projects)

Addendum No. 10
Drug and Alcohol Testing Policy

2. Article II Section 4(b) is hereby deleted in its entirety and replaced with the following:

Any dispute as to the applicable source between this Agreement and any Schedule A for determining the wages, hours and working conditions of employees on the Project shall be resolved by one of the Arbitrators, selected by the negotiating parties, under the procedures established in Article VII. It is understood that this Agreement, together with the referenced Schedule As constitute a self-contained, stand-alone agreement and by the virtue of having become bound to this Project Labor Agreement the Contractor will not be obligated to sign any other local, area or national Agreement as a condition of performing work within the scope of this Agreement.

3. Article III Section 6 is hereby deleted in its entirety and replaced with the following:

The local unions will exert their utmost efforts to recruit and refer sufficient numbers of skilled craft workers to fulfill the labor requirements of the Contractor, including specific employment obligations to which the Contractor may be legally obligated. The parties to this Agreement support the development of increased numbers of skilled construction workers from the residents of the area of the Project to meet the needs of the Project and the requirements of the industry generally. Toward that end, the unions agree to first refer, to the extent permitted by law and the hiring hall procedures, Impact Area Residents or Local Residents as journeymen and apprentices for employment on the Project. The qualifying zip codes for both Impact Area Residents and Local Residents are listed in Addendum No. 8 – Craft Employee Request Form. Local Residents are defined as those employees living within the zip codes of the City of Los Angeles, Culver City, Hawthorne and the West Los Angeles Veterans Affairs Campus (90073) that are not otherwise included in the Impact Area zip codes. In addition, the parties agree to recruit Impact Area Residents and Local Residents and facilitate entrance into such apprenticeship and training programs as may be operated by the signatory local unions. All parties agree to fully cooperate in local hiring and training programs such as the HireLAX Apprenticeship Readiness Program.

4. Article III Section 8 is hereby deleted in its entirety.
5. Article III Section 9 is hereby deleted in its entirety and replaced with the following:

Employees are not required to become or remain union members as a condition of performing work on a Project under this Agreement. Contractors shall make and transmit all deductions for union dues, fees, and assessments that have been authorized by employees in writing in accordance with the applicable Schedule A. Nothing in this Section 9 is intended to supersede the requirements of the applicable Schedule A(s) as to those Contractors otherwise signatory to such Schedule A(s) and as to the employees of those Contractors who are performing work on a Project.

6. The last full paragraph of Article III Section 10 is hereby deleted in its entirety and replaced with the following:

For each covered Project, the Union will refer to such Contractor one employee from the hiring hall out-of-work list for each affected trade or craft, and will then refer one of such Contractor's "core" employees and shall repeat the process as follows: one from the hiring hall and one "core" employee, until such contractor's requirements are met or until such contractor has hired five (5) such "core" employees for that craft, whichever occurs first. Thereafter, all additional employees in the affected trade or craft shall be hired exclusively from the hiring hall out-of-work list. In the event of a reduction-in-force or layoff, such will take place in a manner to assure that the number of core employees in the affected craft does not exceed, at any time, the number of others working in that craft who were employed pursuant to other procedures available to the Contractor under this Agreement.

7. The following new Section 13 (c) is hereby added to Article III as follows:

The Contractors and the Unions recognize a desire to facilitate the entry into the building and construction trades of veterans who are interested in careers in the building and construction industry. The Contractors and Unions agree to utilize the services of the Center for Military Recruitment, Assessment and Veterans Employment (hereinafter "Center") and the Center's "Helmets to Hardhats" program to serve as a resource for preliminary orientation, assessment of construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the Parties. For purposes of this Agreement the term "Eligible Veteran" shall have the same meaning as the term "veteran" as defined under Title 5, Section 2108(1) of the United States Code as the same may be amended or re-codified from time to time. It shall be the responsibility of each qualified Veteran to provide the Unions with proof of his/her status as an Eligible Veteran.

The Unions and Contractors agree to coordinate with the Center to create and maintain an integrated database of veterans interested in working on this Project and of apprenticeship and employment opportunities for this Project. To the

(extent permitted by law, the Unions will give credit to such veterans for bona fide, provable past experience.

8. Article VII Section 2 (iii), Addendum No. 2 and Addendum No.3 are hereby deleted in their entirety and replaced with the following new Article VII Section 2 (iii), as follows:

Step 3(a). If the grievance shall have been submitted but not resolved under Step 2, either party may request in writing to the Agreement Coordinator (with copy(ies) to the other party(ies)) within seven (7) calendar days after the initial Step 2 meeting, that the grievance be submitted to an arbitrator mutually agreed upon by the parties to the grievance, selected from the following permanent panel of six (6) arbitrators, pre-selected by the negotiating parties to this Agreement, as follows: (1) Thomas Pagan; (2) David Hart; (3) Edna Francis; (4) Michael Prihar; (5) Fred Horowitz; and (6) Sara Adler. Should the parties to the grievance be unable to agree upon the selection of one of the six listed arbitrators, within ten (10) working days of the arbitration request, the Agreement Coordinator shall select one of the seven listed arbitrators on a rotational basis. The decision of the arbitrator shall be final and binding on all parties and the fee and expenses of such arbitrations shall be borne equally by the involved Contractor and the involved Union(s).

9. The following new subsection (a) is added to Article VIII section 2 as follows:

(If a dispute arising under this Article involves the Southwest Regional Council of Carpenters or any of its subordinate bodies, an Arbitrator shall be chosen by the procedures specified in Article V, Section 5, of the Plan from a list composed of John Kagel, Thomas Angelo, Robert Hirsch, and Thomas Pagan, and the Arbitrator's hearing on the dispute shall be held at the offices of the Council within 14 days of the selection of the Arbitrator. All other procedures shall be as specified in the Plan.

10. Article IX Section 1 is deleted in its entirety and replaced with the following:

All employees covered by this Agreement shall be classified in accordance with work performed and paid the hourly wage rates for those classifications in compliance with the applicable prevailing federal or state rate determination. If the prevailing wage laws are repealed during the term of this Agreement, the Contractor shall pay the wage rates established under the Schedule As, except as otherwise provided in this Agreement. Notwithstanding any other provision in this Agreement, Contractors directly signatory to one or more of the Schedule A Agreements are required to pay all of the wages set forth in those Schedule A Agreements without reference to the forgoing.

11. The first paragraph of Article IX Section 2 is deleted in its entirety and replaced with the following:

Contractor is to pay contributions to the established employee benefits funds in the amounts designated in the appropriate Schedule A and to make all employee-authorized deductions on behalf of all employees in the amounts designated in the appropriate Schedule A; provided, however, that the Contractor and the Union agree that only such bona fide employee benefits as accrue to the direct benefit of the employees (such as pension and annuity, health and welfare, vacation, apprenticeship, training funds, etc.) shall be included in this requirement and required to be paid by the Contractor on this Project; and provided that such contributions shall not exceed the contribution amounts set forth in the applicable prevailing wage determination. Bona fide jointly-trusted benefit plans or authorized employee deduction programs established or negotiated under the applicable Schedule A or by the parties to this Agreement during the life of this Agreement may be added, subject to the limitations upon such negotiated changes contained in Article XVII, Section 2 of this Agreement, and provided that contributions do not exceed contribution amounts set forth in the applicable prevailing wage determination. Notwithstanding any other provision in this Agreement, Contractors directly signatory to one or more of the Schedule A Agreements are required to pay all contributions set forth in those Schedule A Agreements without reference to the forgoing.

12. Sections 2, 3, 4, 5, 6, 7, 9 and 11 of Article X are hereby deleted in their entirety.

13. Article XI Section 1 is hereby deleted in its entirety and replaced with the following:

The parties recognize the need to maintain continuing support of programs designed to develop adequate numbers of competent workers in the construction industry, and the special need and obligation to capitalize on the availability of the local workforce in the Los Angeles area entering the construction industry. To these ends, the Contractor will employ apprentices in their respective crafts to perform such work as is within their capabilities and which is customarily performed by the craft in which they are indentured. Further, the parties will recruit and encourage Impact Area Residents, Local Residents, minorities and women to commence and progress in apprenticeship programs in the construction industry.

14. Article XI Section 3 is hereby deleted in its entirety and replaced with the following:

It is recognized that special procedures may be established by joint agreement of the parties to this Agreement and governmental agencies for the training and employment of persons who have not previously qualified to be employed on construction Projects of the type covered by this Agreement. The parties agree that they will make all good faith efforts to assist in the proper implementation of such orders, regulations or agreements for the general benefit of the Impact Area Residents and Local Residents, including the utilization of the HireLAX Apprenticeship Readiness Program.

- (
15. Article XII Section 1(c) is hereby deleted in its entirety and replaced with the following:

The Parties to this Agreement adopt the Los Angeles/Orange Counties Building and Construction Trades Council Approved Drug and Alcohol Testing Policy, a copy of which is hereby attached to the PLA as Addendum 10 and which shall be the policy and procedure utilized under this Agreement.

16. Article XIII Section 1 is deleted in its entirety and replaced with the following:

The Contractor and Union agree that they will not discriminate against any employee or applicant for employment because of race, sex, religion, creed, political affiliation, membership in a labor organization, national origin, color, disability as defined by law, disabled veteran status, Vietnam veteran status, religion, age (40 and above), medical condition, marital status, ancestry, or sexual orientation in any manner prohibited by law or regulation, in hiring and dispatching workers for the Project. The Union shall cooperate with the Contractors' obligations to take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to such status. Relevant employment actions shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Any complaints regarding the application of this provision shall be brought to the immediate attention of the involved contractor for consideration and resolution.

- (
17. Article XIV is hereby deleted in its entirety.

18. It is understood by the Parties to the Agreement that the City no longer owns or operates Ontario Airport. All references to airport-related facilities owned and controlled by the City is limited to Los Angeles International Airport (LAX), Van Nuys Airport (VNY), and Palmdale Aviation-related Property. Consequently, it will not be required for the San Bernardino and Riverside County Building and Construction Trades Council to remain signatory to this Agreement.

Therefore, Item 2, Section 1(b) of Addendum 1 is hereby deleted in its entirety and replaced with the following:

(b) Such other major construction, rehabilitation, and renovation Projects involving airport-related facilities at Los Angeles International Airport (LAX), Van Nuys Airport (VNY), and Palmdale Aviation-related Property, as are designated by the City to be covered by this Agreement.

19. The following new Section 1(c) is hereby added to Addendum No. 6, the December 3, 2010 PLA Amendment which further amends Section 1 of Article XIX, as follows:

(

Section 1(c) The signatory parties mutually agree this 3rd day of September, 2020, to extend the existing Agreement effective January 1, 2021 for an additional ten

(10) years, through December 31, 2030, for Project work meeting conditions established in Article II, Section 1 (a) or (b) with a bid advertisement date or request for proposal advertisement date on or after January 1, 2021. The amended Agreement shall continue in effect until December 31, 2030, and thereafter with regard to any work covered by this Agreement commenced prior to that date but not executed to Final Completion prior to that date. The Agreement may be extended by mutual agreement of the City and the Unions, not to exceed ten (10) additional years, with twelve (12) month notice to the other party.

20. The three (3) paragraphs under item (1) of Addendum No. 7 is hereby deleted in its entirety and replaced with the following:

It is understood that all Contractors awarded contracts or sub-contracts for a covered Project are legally obligated (pursuant to their commercial contracts relating to such covered work on a Project), to maximize the employment of qualified Impact Area Residents and Local Residents, with the goal that at least 30% of the total hours worked by covered employees on each Project shall be performed by Impact Area Residents or Local Residents. The qualifying zip codes for Impact Area Residents and Local Residents are listed in Addendum No. 8 – Craft Employee Request Form. Contractors shall develop a hiring plan for maximizing the employment of Impact Area Residents and Local Residents and maintain records of their compliance efforts. Those plans and records shall be made available to the Agreement Coordinator upon request. The Contractors and the signatory unions will make every good faith effort to request for referral and to refer, respectively, qualified individuals meeting the Impact Area Resident and Local Resident hiring residency qualifications.

In recognition of these obligations, the signatory unions, as the prime referral source, as well as the apprenticeship programs in which the signatory unions participate, shall cooperate and work with the contractors, LAWA, the City of Los Angeles, and the organizations designated by LAWA, to assist in the identification and training of Impact Area Residents and Local Residents for work and the referral of such persons to work opportunities arising under this Agreement.

The contractors and referral systems of the signatory unions will maintain records with regard to all requests for referral, referrals, and employment of both Impact Area Residents and Local Residents. Such records shall be available upon request to the Agreement Coordinator.

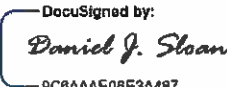
21. The Parties agree that Addendum 9 is obsolete.

SIGNATURE PAGES

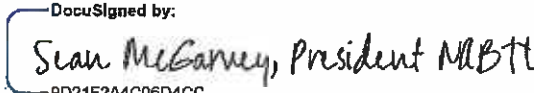
**2020 AMENDMENT OF THE LOS ANGELES WORLD AIRPORTS
PROJECT LABOR AGREEMENT**

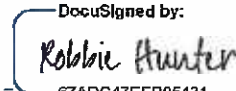
This Amendment may be executed in one or more counterparts, each of which shall be deemed an original, but all which together shall constitute one and the same instrument. Electronic signatures collected using a bona fide electronic signature collection system are to be deemed equivalent to original "wet ink" signatures under this Amendment.

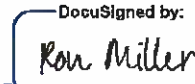
For the Agreement Coordinator:

By:  _____
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President, Parsons Constructors Inc.

For the Unions:

By:  _____
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President, North America's Building
Trades Union

By:  _____
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President, State Building and Construction
Trades Council of California

By:  _____
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Executive Secretary, Los Angeles and
Orange County Building and Construction
Trades Council

Signatory Unions (signatures continue on the next pages)

**LOS ANGELES/ORANGE COUNTIES BUILDING AND CONSTRUCTION
TRADES COUNCIL CRAFT UNIONS AND DISTRICT COUNCILS**

Asbestos Heat & Frost Insulators (Local 5)
 Boilermakers (Local 92)
 Bricklayers & Allied Craftworkers (Local 4)
 Cement Masons (Local 600)
 District Council of Laborers
 Electricians (Local 11)
 Elevator Constructors (Local 18)
 Guniters (Local 345)
 Iron Workers (Reinforced – Local 416)
 Iron Workers (Structural – Local 433)
 Laborers (Local 300)
 Laborers (Local 1184)
 Operating Engineers (Local 12)
 Operating Engineers (Local 12)
 Operating Engineers (Local 12)
 Painters & Allied Trades DC 36
 Pipe Trades (Local 250)
 Pipe Trades (Local 345)
 Pipe Trades (Plumbers Local 78)
 Pipe Trades (Plumbers & Fitters Local 761)
 Pipe Trades (Sprinkler Fitters Local 709)
 Plasterers (Local 200)
 Plaster Tenders (Local 1414)
 Roofers & Waterproofers (Local 36)
 Sheet Metal Workers (Local 105)
 Teamsters (Local 986)
 Southwest Regional Council of Carpenters

DocuSigned by:

Mike Patterson (Heat&Frost#5) _____

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Luis Miramontes (Boilermakers#92) _____

DocuSigned by:

Luis Aldaco (Brk#4) _____

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Fitzgerald Jacobs (CementMasons#600) _____

DocuSigned by:

Joel Barton (IBEW #11) _____

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Joel Barton (IBEW #11) _____

DocuSigned by:

Tony Garganiga (ElevatorConstructors#18) _____

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DocuSigned by:

Ed Larn (Guniters#345) _____

DocuSigned by:

Vidal Zambrano (IronWorkers#416) _____

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Keith Haskoy (Ironworkers Local 433) _____

DocuSigned by:

Michael Dea (LIUM#1184) _____

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Michael Dea (LIUM#1184) _____

DocuSigned by:

Ron Sikorski (OperatingEngineers#12) _____

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David Sikorski _____

DocuSigned by:

Larry Davison _____

DocuSigned by:

Mark Bartlett _____

DocuSigned by:

Glenn Santa Cruz (UL#250) _____

DocuSigned by:

Ricardo Perez (UL#345) _____

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Jeremy Diaz (Plumbers#78) _____

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Greg Lewis (UL #761) _____

DocuSigned by:

Todd Golden (UL#709) _____

DocuSigned by:

Tom Castleman (Plasterers#200) _____

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Jim Preciado (PlasterTenders#1414) _____

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Cliff Smith _____

DocuSigned by:

Luther Medina _____

DocuSigned by:

Caesar Borjas (Teamsters#986) _____

DocuSigned by:

Stephen Aralza _____

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TABLE OF CONTENTS

ARTICLE I	PURPOSE	2
ARTICLE II	SCOPE OF AGREEMENT.....	3
ARTICLE III	UNION RECOGNITION AND EMPLOYMENT	7
ARTICLE IV	UNION REPRESENTATION AND STEWARDS.....	9
ARTICLE V	MANAGEMENT'S RIGHTS.....	10
ARTICLE VI	WORK STOPPAGES AND LOCKOUTS	11
ARTICLE VII	DISPUTES AND GRIEVANCES	14
ARTICLE VIII	WORK ASSIGNMENTS AND JURISDICTIONAL DISPUTES	16
ARTICLE IX	WAGES AND BENEFITS	17
ARTICLE X	HOURS OF WORK, OVERTIME, SHIFTS AND HOLIDAY	18
ARTICLE XI	APPRENTICES	20
ARTICLE XII	SECURITY, SAFETY, PROTECTION OF PERSON AND PROPERTY.....	21
ARTICLE XIII	NON-DISCRIMINATION.....	22
ARTICLE XIV	TRAVEL AND SUBSISTENCE	22
ARTICLE XV	WORKING CONDITIONS	23
ARTICLE XVI	PRE-JOB CONFERENCES	24
ARTICLE XVII	LABOR/MANAGEMENT COOPERATION	24
ARTICLE XVIII	SAVINGS AND SEPARABILITY	25
ARTICLE XIX	DURATION OF THE AGREEMENT	25

ATTACHMENT 1 LETTER OF ASSENT	32
ADDENDUM 1 LETTER OF CLARIFICATION	33
ADDENDUM 2 PERMANENT ARBITRATORS	38
ADDENDUM 3 READIMIX CONCRETE, SAND/GRAVEL, AGGREGATE DELIVERY	40
ADDENDUM 4 ELEVATOR UNION CLARIFICATION	41

**LOS ANGELES INTERNATIONAL AIRPORT
CONSTRUCTION
PROJECT LABOR AGREEMENT**

This Project Labor Agreement (hereinafter, the "Agreement") is entered into this 19th day of November, 1999, by and between Parsons Constructors, Inc., its successors or assigns (hereinafter "PCI" or "Agreement Coordinator") and The Building and Construction Trades Department, AFL-CIO (hereinafter "BCTD"), on behalf of its affiliated International Unions, The Building and Construction Trades Council of California (hereinafter "California Council"), The Building and Construction Trades Council of Los Angeles-Orange County (hereinafter "Los Angeles Council"), and the signatory Craft Unions affiliated with The Building & Construction Trades Department AFL-CIO (all hereinafter, collectively called the "Union" or "Unions"), with respect to the construction work within the scope of this Agreement owned by The City of Los Angeles, Department of Airports, acting through the Board of Airport Commissioners (hereinafter, "City," "Department," or "Commission," as appropriate) for the renovation and improvement of the Los Angeles International Airport's ("LAX") Tom Bradley International Terminal (hereinafter, "TBIT"), and such other major construction projects and related construction work as the City determines is appropriate for coverage and which is commenced prior to December 31, 2010, collectively referred to herein as the "Project."

It is understood by the parties to this Agreement that if this Agreement is acceptable to the Commission, it will become the policy of the Commission that the construction work covered by this Agreement shall be contracted exclusively to Contractors who agree to execute and be bound by the terms of this Agreement. Therefore, the Unions agree that other contractors may execute the Agreement for purposes of covering such work. PCI shall administer this Agreement and shall monitor the compliance with it by all contractors, who, together with their subcontractors, through their execution of this Agreement, the Letter of Assent, or other document binding them to this Agreement, shall become bound hereto. It is understood, however, that the current contractual arrangement between the City and PCI is of limited duration, not for the length of the Project, and that should a new Contract not be awarded to PCI, a new Agreement Coordinator will be designated by the City and such Agreement Coordinator will execute this Agreement and accept and undertake the obligations, responsibilities and authority of PCI for the implementation of this Agreement.

The term "Contractor" shall include all construction contractors and subcontractors of whatever tier engaged in on-site construction work within the scope of this Agreement, including the Agreement Coordinator, if awarded construction work within the scope of this Agreement. Where specific reference to PCI (or its successor) alone is intended, the term "PCI" or "Agreement Coordinator" is used.

The Unions, the Agreement Coordinator and all signatory contractors agree to abide by the terms and conditions contained in this Agreement. This Agreement represents complete understanding of the parties, and no Contractor is or will be required to sign any other agreement with a signatory union as a condition of performing work within the scope of this Agreement. No practice, understanding or agreement between a Contractor and a Union party which is not specifically set forth in this Agreement will be binding on any other party unless endorsed in writing by the Agreement Coordinator

The Unions agree that this Agreement will be made available to, and will fully apply to, any successful bidder for Project work who becomes a signatory hereto, without regard to whether that successful bidder performs work at other sites on either a union or a non-union basis, and without regard to whether employees of such bidder are or are not members of any union. This Agreement shall not apply to the work of any contractor which is performed at any location other than the project site as defined in this Agreement.

The use of the masculine or feminine gender or titles in this Agreement shall be construed as including both genders and not as gender limitations unless the Agreement clearly requires a different construction.

ARTICLE I

PURPOSE

The initial phase of the Project, the renovation and improvement of TBIT, is a multi-year, over \$100 million dollar undertaking of the City. The goal of this Project is to provide added space to LAX's existing Tom Bradley International Terminal Facility, which provides more than 8.7 million international travelers with transportation services in and out of the Los Angeles area.

The TBIT construction will rehabilitate, renovate, and improve the existing terminal facility by "infilling" the central area to the west of the main terminal building. The Project includes improvement of airline and public lounge areas, baggage claim areas and devices, and administrative offices. The design changes to TBIT will provide approximately 285,000 net usable square feet of floor space, distributed over seven floor levels. Also included in the renovations is approximately 195,000 net square feet of the existing central terminal area.

Finally, the TBIT Project is the first of many major construction projects expected to be approved and built at the Airport during the next decade. These projects are critical to the continued value of the Airport for the domestic and international transportation of passengers and cargo without delay, and for the overall economic well-being of the greater Los Angeles and Southern California. Therefore, the timely and successful completion of the construction work covered by this Agreement is vital and it is essential that the construction be done in an efficient and economical manner in order to secure the optimum productivity and eliminate delay. The parties recognize that such work will take place in the middle of the

continuing operation of the Airport and that it is critical to minimize the inconvenience to the 62 million people who use the facilities annually. The parties acknowledge the vital economic role which the efficient and functioning of the Airport holds for the economy of California. They will endeavor to avoid interference with the ongoing operations of the Airport, completing the work within the scope of this Agreement without delay or unnecessary cost.

In recognition of these special needs of this Project and to maintain a spirit of harmony, labor management peace and stability during the term of this Project Labor Agreement, the parties agree to establish effective and binding methods for the settlement of all misunderstandings, disputes or grievances which may arise; and in recognition of such methods and procedures, the Unions agree not to engage in any strikes, slow downs or interruption of work and the Contractor agrees not to engage in any lock out.

ARTICLE II

SCOPE OF AGREEMENT

This Agreement, hereinafter designated as the "Project Labor Agreement" or "Agreement" shall apply and is limited to all construction as generally described in Section 1 of this Article performed by those contractor(s) of whatever tier which have contracts awarded for such work, which may include the Agreement Coordinator, on or after the effective date of this Agreement, with regard to the construction, reconstruction, rehabilitation, or any other construction-related activities necessary to the development of Tom Bradley International Terminal and related facilities and such other major construction projects within the scope of this Agreement, all of which are hereinafter referred to as the "Project" and generally defined below.

Section 1. The Project is generally defined as and limited to:

(a) The renovation, rehabilitation and improvement of the Tom Bradley International Terminal Facility, in an approximately 285,000 square foot infill area of that terminal, and which will include the renovation of airline and public lounge areas, baggage claim facilities, and the Federal Inspection Service and Department administrative offices; and

(b) Such other major construction, rehabilitation, and renovation projects involving Airport-related facilities as are designated by the City to be covered by this Agreement.

It is understood by the parties that the City may at any time and at its sole discretion determine to build segments of the Project under this Agreement not currently proposed, or to modify or not to build any one or more of the particular segments proposed to be covered.

Section 2. Items specifically excluded from the scope of this Agreement include the following:

(a) Work of non-manual employees, including but not limited to, superintendents, supervisors, staff engineers, quality control and quality assurance personnel, timekeepers, mail carriers, clerks, office workers, including messengers, guards, safety personnel, emergency medical and first aid technicians, and other professional, engineering, administrative, supervisory and management employees.

(b) Equipment and machinery owned or controlled and operated by the City, Department, or Commission.

(c) All off-site manufacture and handling of materials, equipment or machinery; provided, however, that lay-down or storage areas dedicated solely to Project work, delivery of material or goods between locations on the site, and all on-site transportation involving any batch plant erected on the site, are within the scope of this Agreement.

(d) All employees of the City, Department, Commission, Agreement Coordinator, and design team, or any other consultant of the City not performing manual labor with the scope of this Agreement.

(e) Any work performed on or near or leading to or into the site of work covered by this Agreement and undertaken by state, county, city or other governmental bodies, or their contractors; or by public utilities or their contractors; and/or by the City or its contractors (for work which is not part of the scope of this Agreement).

(f) Off-site maintenance of leased equipment and on-site supervision of such work.

(g) Work by employees of a manufacturer or vendor necessary to maintain such manufacturer's or vendor's warranty or guarantee.

(h) Non-construction support services contracted by the City, Agreement Coordinator, or Contractor in connection with this Project.

(i) Any work performed by tenants of the City or their contractors.

(j) All work by employees of the City or its contractors involving general maintenance, emergency repair, and/or cleaning work, except as specifically covered by this Agreement.

(k) Installation of speciality items which may be purchased by the City may be performed by employees employed under this Agreement with the participation of other

personnel in a supervisory role, or, in limited circumstances requiring special knowledge of the particular item(s), or where required to protect a guarantee or warranty, may be performed by employees of the vendor or other companies where employees working under this Agreement lack the required necessary skills or cannot protect a guarantee or warranty offered by the vendor. These speciality items may include but are not limited to baggage handling and security systems.

(l) The City's controlled environmental and hazardous materials management program and integrated security system, unless such is included in new construction contracts let as part of projects covered by this Agreement.

Section 3(a). The City, the PCI, and/or Contractors, as appropriate, have the absolute right to award contracts or subcontracts on this Project notwithstanding the existence or non-existence of any Agreements between such contractor and any union party provided only that such Contractor is willing, ready and able to execute and comply with this Project Labor Agreement, should such Contractor be awarded work covered by this Agreement.

(b) It is agreed that all contractors and subcontractors, of whatever tier, who have been awarded contracts of work covered by this Agreement on or after the effective date of this Agreement shall be required to accept and to be bound by the terms and conditions of this Project Labor Agreement, and shall evidence their acceptance by the execution of the Agreement or the Letter of Assent, as set forth in Attachment 1 hereto, prior to the commencement of work. A copy of the Agreement or Letter of Assent executed by the Contractor shall be available for review by the Union.

Section 4(a). The provisions of this Project Labor Agreement (including the Schedule As, which are the local Collective Bargaining Agreements of the signatory unions having jurisdiction over the work on the Project (as may be changed from time-to-time consistent with Article XIX, Section 2) and which are incorporated herein by reference) shall apply to the work covered by this Agreement, notwithstanding the provisions of any other local, area and/or National Agreements which may conflict with or differ from the terms of this Agreement. Where a subject covered by the provisions of this Agreement is also covered by a Schedule A, the provisions of this Agreement shall prevail. Where subject is covered by the provisions of a Schedule A and is not covered by this Agreement, the provisions of the Schedule A shall prevail.

(b) Any dispute as to the applicable source between this Agreement and any Schedule A for determining the wages, hours and working conditions of employees on the Project shall be resolved by Howard S. Block, selected by the negotiating parties, under the procedures established in Article VII. It is understood that this Agreement, together with the referenced Schedule As constitute a self-contained, stand-alone agreement and by the virtue of having become bound to this Project Labor Agreement the Contractor will not be obligated to sign any other local, area or national Agreement as a condition of performing work within the scope of this Agreement.

Section 5. The Agreement shall only be binding on the signatory parties hereto and shall not apply to the parents, affiliates, subsidiaries, or other ventures of any such party.

Section 6. This Agreement shall be limited to the construction work within the scope of this Agreement for which bids have been received on and after the effective date of this Agreement, including, specifically, site preparation and related demolition work, and utilities and modifications or rehabilitation of existing facilities. Nothing contained herein shall be construed to prohibit, restrict, or interfere with the performance of any other operation, work or function which may be performed or contracted by the City for its own account on the property or in and around the construction site.

Section 7. It is understood that the liability of the Contractor and the liability of the separate unions under this Agreement shall be several and not joint. The Unions agree that this Agreement does not have the effect of creating any joint employment status between or among the City or the PCI and/or any Contractor.

Section 8. None of the provisions of this Agreement shall be construed to prohibit or restrict the City or its employees from performing work not covered by this Agreement on or around the construction site. As areas of covered work are accepted by the City, the Agreement shall have no further force or effect on such items or areas except where the Contractor is directed by the City to engage in repairs, modifications, check-out and/or warranty functions required by its contract(s) with the City.

Section 9. It is understood that the City, at its sole option, may terminate, delay and/or suspend any and all portions of the covered work at any time. Further, the City may prohibit some or all work on certain days, for example, peak travel days in holiday periods, to accommodate LAX operational considerations; and/or require such other operational or scheduled changes as it may deem necessary to maintain efficient operations for the traveling public. In order to permit the Contractor and Union to make appropriate scheduling plans, the City will provide the Agreement Coordinator, the Contractor, and the Union with sufficient reasonable notice of any changes it is requiring pursuant to this Clause.

Section 10. The parties recognize that by virtue of the operation of the Airport, the City, its Contractors, and their employees are subject to regulations and directives issued by the Federal Aviation Administration and other federal and state agencies. Nothing in this Agreement is intended to compromise compliance by the City or any entity covered by this Agreement, with their obligations to the state and federal agencies and authorities with jurisdiction over their operations or those of the Airport. In the event a directive is received which conflicts with any provision of the Agreement, the directive shall take priority and the Agreement Coordinator and affected contractors and unions will be notified by the most expeditious means available.

ARTICLE III
UNION RECOGNITION AND EMPLOYMENT

Section 1. The Contractor recognizes the Union as the sole and exclusive bargaining representative of all employees working on the Project within the scope of this Agreement.

Section 2. The Contractor shall have the right to determine the competency of all employees, the number of employees required and shall have the sole responsibility for selecting employees to be laid off, consistent with Section 11 and with Article IV, Section 3, below. The Contractor shall also have the right to reject any applicant referred by a local Union, subject to any show-up payment required by Article X, Section 8(a).

Section 3. For signatory unions now having a job referral system contained in Schedule A, the Contractor agrees to comply with such system and it shall be used exclusively by such Contractor, except as it may be modified by this Article. Such job referral system will be operated in a non-discriminatory manner and in full compliance with federal, state, and local laws and regulations which require equal employment opportunities and non-discrimination, and referrals shall not be affected in any way by the rules, regulations, by-laws, constitutional provisions or any other aspects or obligations of union membership, policies or requirements. All of the foregoing hiring procedures, including related practices affecting apprenticeship and training, will be operated so as to facilitate the ability of the contractors to meet any and all equal employment opportunity/affirmative action obligations.

Section 4. In the event that local unions are unable to fill any requisitions for employees within forty-eight (48) hours after such requisition is made by the Contractor (Saturdays, Sundays, and holidays excepted), the Contractor may employ applicants from any other available source. The Contractor shall inform the Union of any applicants hired from other sources.

Section 5. The local unions shall not knowingly refer an employee currently employed by any Contractor working under this Agreement to any other Contractor. No Contractor shall knowingly hire an employee employed by a Contractor working under this Agreement, nor shall they induce an employee to change employers.

Section 6. The local unions will exert their utmost efforts to recruit and refer sufficient numbers of skilled craft workers to fulfill the labor requirements of the Contractor, including specific employment obligations to which the Contractor may be legally obligated. The parties to this Agreement support the development of increased numbers of skilled construction workers from the residents of the area of the Project to meet the needs of this Project and the requirements of the industry generally. Toward that end, the unions agree to encourage the referral and utilization, to the extent permitted by law and the hiring hall procedures, of qualified residents as journeymen, apprentices and trainees on this Project and entrance into such apprenticeship and training programs as may be operated by the signatory

local unions. All parties agree to fully cooperate in local hiring and training programs such as the "Workforce Development System."

Section 7. In the event that a signatory local union does not have a job referral system as set forth in Section 3 above, the Contractor shall give the union equal opportunity to refer applicants, subject to the provision of Section 4 of this Article and in a non-discriminatory manner consistent with Section 3 of this Article. The Contractor shall notify the Union of employees hired from any source other than referral by the Union.

Section 8. Notwithstanding any other provision, in the event any Union either fails or is unable to refer qualified minority or female applicants in numbers equaling the City's or a Contractor's expected levels of participation, the Contractor may use employment sources other than the Union registration and referral systems if such use is necessary to meet affirmative action or equal employment opportunity obligations applicable to the City or Contractor by virtue of any federal, state, or local law, rule, ordinance, regulation or executive order, or judicial decision or decree.

Section 9. No employee covered by this Agreement shall be required to join any union as a condition of being employed, or remaining employed, on the Project; provided, however, that an employee who is a member of the referring union at the time of referral shall maintain that membership in good standing while employed under the Agreement. All employees shall, however, be required to comply with the union security provisions of the applicable Schedule A for the period during which they are performing on-site Project work to the extent, as required by law, of rendering payment of the applicable monthly working dues and all non-initiation or application fees uniformly required for union membership in the local union which is signatory to this Agreement.

Section 10. The parties recognize the City's commitment to provide opportunities to participate on the Project to minority, women, disadvantaged and other business enterprises as well as other enterprises which may not have previously had a relationship with the unions signatory to this Agreement. To ensure that such enterprises will have an opportunity to employ their experienced "core" employees on this Project, the parties agree that in those situations where a Contractor not a party to the current collective bargaining agreement with the signatory union having jurisdiction over the affected work is a successful bidder, that Contractor may request by name, and the local will honor, referral of persons who have applied to the local union for Project work and who meet the following qualifications:

- (1) possess any license required by state or federal law for the Project work to be performed;
- (2) have worked a total of at least 3,000 hours in the construction craft during the prior three (3) years.

(3) were on the Contractor's active payroll for at least 90 out of the 180 calendar days prior to the contract award;

(4) have the ability to perform safely the basic functions of the applicable trade.

The Union will refer to such Contractor one employee from the hiring hall out-of-work list for each affected trade or craft, and will then refer one of such Contractor's "core" employees and shall repeat the process as follows: one from the hiring hall and one "core" employee, until such contractor's requirements are met or until such contractor has hired ten (10) such "core" employees for that craft, whichever occurs first. Thereafter, all additional employees in the affected trade or craft shall be hired exclusively from the hiring hall out-of-work list. In the event of a reduction-in-force or layoff, such will take place in a manner to assure that the number of core employees in the affected craft does not exceed, at any time, the number of others working in that craft who were employed pursuant to other procedures available to the Contractor under this Agreement.

Section 11. Except as provided in Article IV, Section 3, individual seniority should not be recognized or applied to employees working on the Project provided, however, that group and/or classification seniority in a Union Schedule A as of effective date of this Agreement shall be recognized for purposes of layoff.

Section 12. The selection and number of craft foremen and/or general foremen shall be the responsibility of the Contractor. All foremen shall take orders exclusively from the designated contractor representatives. Craft foremen shall be designated as working foremen at the request of the Contractor.

ARTICLE IV UNION REPRESENTATION AND STEWARDS

Section 1. Authorized representatives of the Union shall have access to the Project, provided that they do not interfere with the work of the employees and further provided that such representatives fully comply with posted visitor and security and safety rules of the Project. It is understood that because of the geographical scope of the Project, and the type of work being undertaken on the Project site, visitors may be limited to certain times, or areas, or to being accompanied at all times while on the Project site; with this in mind, however, the Contractor recognizes the right of access set forth in this Section and such will not be unreasonably withheld from an authorized representative of the Union.

Section 2(a). Each signatory local union shall have the right to dispatch an experienced working journeyman as a steward for each shift, and shall notify the Contractor in writing of the identity of the designated steward or stewards prior to the assumption of such person's duties as steward. Such designated steward or stewards shall not exercise any supervisory

functions. There will be no non-working steward. Stewards will receive the regular rate of their respective crafts.

(b) In addition to his/her work as an employee, the steward shall have the right to receive, but not solicit, complaints or grievances and to discuss and assist in the adjustment of the same with the employee's appropriate supervisor. Each steward shall be concerned with the employees of the steward's Contractor and if applicable, subcontractors, and not with the employees of any other Contractor. The Contractor will not discriminate against the steward in the proper performance of his/her union duties.

(c) When a Contractor has multiple, non-contiguous work locations on the site, the Contractor may request, and the union shall appoint such additional working stewards as the Contractor requests to provide independent coverage of one or more such locations. In such cases a steward may not service more than one work location without the approval of the contractor.

(d) The stewards shall not have the right to determine when overtime shall be worked or who shall work overtime.

Section 3. The Contractor agrees to notify the appropriate union twenty-four (24) hours prior to the layoff of a steward. If a steward is protected against such layoff by the provisions of any Schedule A, such provisions shall be recognized to the extent that the steward possesses the necessary qualifications to perform the work remaining. In any case in which a steward is discharged or disciplined for just cause and prohibited from entering or being on the job site, the appropriate union shall be notified immediately by the Contractor, and such discharge or discipline shall not become final (subject to any later filed grievance) until twenty-four (24) hours after such notice has been given.

Section 4. Personnel of the Department will be working in close proximity to the construction activities. The union agrees that the union representatives, stewards and individual workers will not interfere with such personnel, or with personnel employed by any other employer not a party to this Agreement.

ARTICLE V

MANAGEMENT'S RIGHTS

Section 1. The Contractor retains the full and exclusive authority for the management of its operations. Except as expressly limited by other provisions of this Agreement, the Contractor retains the right to direct the workforce, including, but not limited to, the hiring, promotion, transfer, layoff, discipline or discharge for just cause of its employees; the selection of foremen; the assignment and schedule of work; the promulgation of reasonable work rules; and, the requirement of overtime work, the determination of when it will be worked and the number and identity of employees engaged in such work. No rules, customs, or practices which limit or restrict productivity, efficiency or the individual and/or joint

working efforts of employees shall be permitted or observed. The Contractor may utilize any methods or techniques of construction.

Section 2. There shall be no limitation or restriction by a signatory union upon a Contractor's choice of materials or design, nor, regardless of source or location, upon the full use and utilization of equipment, machinery, packaging, pre-cast, pre-fabricated, pre-finish, or pre-assembled materials, tools, or other labor saving devices. The on-site installation or application of all items shall be performed by the craft having jurisdiction over such work; provided, however, it is recognized that installation of specialty items which may be furnished by the City may be performed by employees employed under this Agreement with the participation of other personnel in a supervisory role, or, in limited circumstances requiring special knowledge of the particular item(s), may be performed by employees of the vendor or other companies where employees working under this Agreement lack the required skills.

Section 3. The use of new technology, equipment, machinery, tools and/or labor saving devices and methods of performing work may be initiated by the Contractor from time-to-time during the Project. The Union agrees that it will not in any way restrict the implementation of such new devices or work methods. If there is any disagreement between the contractor and the union concerning the manner or implementation of such device or method of work, the implementation shall proceed as directed by the Contractor, and the Union shall have the right to grieve and/or arbitrate the dispute as set forth in Article VII of this Agreement.

ARTICLE VI WORK STOPPAGES AND LOCKOUTS

Section 1. There shall be no strikes, picketing, work stoppages, slowdowns or other disruptive activity for any reason (including but not limited to disputes relating to the negotiation or renegotiation of the local collective bargaining agreements which serve as the basis for the Schedule As, economic strikes, unfair labor practices strikes, safety strikes, sympathy strikes, and jurisdictional strikes) by the Union or employees working under this Agreement against any contractor covered under this Agreement or the Project, and there shall be no lockout by the Contractor. Failure of any Union or employee to cross any picket line established by any Union, signatory or non-signatory to the Agreement, or by any other organization or individual at or in proximity to the project construction site is a violation of this Article.

Disputes between the signatory unions and any tenant, concessionaire, renter, or other person or business carrying out its/their normal functions within the boundaries of the Project shall be so handled as not to interfere with the City's business or the work under the Agreement or the business of any other tenant, lessee, concessionaire, or business not a party to such disputes. No picketing or other concerted or disruptive activity against any one or more of the tenants, lessees, concessionaires, persons or businesses operating within the

boundaries of the Project shall be conducted at LAX or near or around the entrance(s) or exit(s) of LAX which adversely affects or disrupts the work under this Agreement, nor shall such activity by any organization not a party to this Agreement be recognized or observed by parties to this Agreement or their members and employees whom they represent.

Section 2. The Contractor may discharge any employee violating Section 1, above, and any such employee will not be eligible for rehire under this Agreement for a period of 180 calendar days. The Agreement Coordinator and the Union shall take all steps necessary to obtain compliance with this Article and neither shall be held liable for conduct for which it is not responsible.

Section 3(a). If the Contractor contends that any Union has violated this Article or the provisions of Article XVII, Section 3, it will notify in writing the International President(s) of the Local Union(s) involved, advising the International President of the fact, with copies of such notice to the Local Union(s) involved and the Building Trades Council. The International President or Presidents will immediately instruct, order and use the best efforts of their office to cause the Local Union or Unions to cease any violation of this Article. An International Union complying with this obligation shall not be liable for unauthorized acts of its Local Union.

(b) If the Union contends that any Contractor has violated this Article, it will notify the Contractor and the Agreement Coordinator setting forth the facts which the Union contends violate the Agreement, at least twenty-four (24) hours prior to invoking the procedures of Section 4.

Section 4. Any party, including the City, which the parties agree is a party to the Agreement for purposes of this Article and an intended beneficiary of this Article, or the Agreement Coordinator, may institute the following procedure, in lieu of or in addition to any other action at law or equity, when a breach of Section 1, above, or Section 3 of Article XIX is alleged:

(a) A party invoking this procedure shall notify **John Kagel**, selected by the negotiating parties, whom the parties agree shall be the permanent arbitrator under this procedure. In the event that the permanent arbitrator is unavailable at any time, he/she shall appoint an alternate. Notice to the arbitrator shall be by the most expeditious means available, with notices to the party alleged to be in violation and to the Los Angeles Council and the BCTD if it is a union alleged to be in violation. For purposes of this Article, written notice may be given by telegram, facsimile, hand delivery or overnight mail but will be deemed effective upon receipt.

(b) Upon receipt of said notice, the arbitrator named above or his/her alternate shall sit and hold a hearing within twenty-four (24) hours if it is contended that the violation still exists, but not sooner than twenty-four (24) hours after the notice has been dispatched to the International President(s) as required by Section 3, above.

(c) The arbitrator shall notify the parties of the place and time chosen for this hearing. Said hearing shall be completed in one session, which, with appropriate recesses at the arbitrator's discretion, shall not exceed 24 hours unless otherwise agreed upon by all parties. A failure of any party or parties to attend said hearings shall not delay the hearing of evidence or the issuance of any award by the arbitrator.

(d) The sole issue at the hearing shall be whether or not a violation of Section 1, above, or of Section 3 of Article XIX, has in fact occurred. The arbitrator shall have no authority to consider any matter in justification, explanation or mitigation of such violation or to award damages, which issue is reserved for court proceedings, if any. The award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without an opinion. If any party desires a written opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with, or enforcement of, the Award. The arbitrator may order cessation of the violation of the Article and other appropriate relief, and such Award shall be served on all parties by hand or registered mail upon issuance.

(e) Such award shall be final and binding on all parties and may be enforced by any court of competent jurisdiction upon the filing of this Agreement and all other relevant documents referred to hereinabove in the following manner. Written notice of the filing of such enforcement proceedings shall be given to the other party. In any judicial proceeding to obtain a temporary order enforcing the arbitrator's Award as issued under Section 4(d) of this Article, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order of enforcement. The court's order or orders enforcing the arbitrator's award shall be served on all parties by hand or by delivery to their address as shown on this Agreement (for a Union), as shown on their business contract for work under this Agreement (for a contractor) and to the representing Union (for an employee), by registered mail.

(f) Any rights created by statute or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance hereto are hereby waived by the parties to whom they accrue.

(g) The fees and expenses of the arbitrator shall be equally divided between the moving party or parties and the respondent party or parties.

Section 5. The Agreement Coordinator is a party in interest in all proceedings arising under this Article and Articles VII and VIII and shall be sent contemporaneous copies of all notifications required under these articles, and, at its option, may participate as a full party in any proceeding initiated under these articles.

Section 6. If the arbitrator determines in accordance with Section 3(d) above that a work stoppage has occurred, the respondent Union(s) shall, within eight (8) hours of receipt of the award, direct all the employees they represent on the project to immediately return to work.

If the craft(s) involved does not return to work by the beginning of the next regularly scheduled shift following such eight (8) hour period after receipt of the arbitrator's award, and the respondent Union(s) have not complied with their obligation to immediately instruct, order, and use their best efforts to cause a cessation of the violation and return of the employees they represent to work, then the respondent Union(s) shall pay the sum of ten thousand dollars (\$10,000) each as liquidated damages to the City, and shall pay an additional ten thousand dollars (\$10,000) per shift for each shift thereafter on which the craft has not returned to work. Similarly, if the arbitrator determines in accordance with Section 3(d) above that a lock-out has occurred, the respondent Contractor(s) shall, within eight (8) hours of receipt of the award, return all of the affected employees to work on the Project, or otherwise correct the violation as found by the arbitrator. If the respondent contractor does not take such action by the beginning of the next regularly scheduled shift following the eight (8) hour period, the respondent contractor(s) shall pay the sum of ten thousand dollars (\$10,000) as liquidated damages to each affected Union (to be apportioned among the affected employees and the benefit funds upon which contributions are made on their behalf, as appropriate and designated by the arbitrator), and shall pay an additional ten thousand dollars (\$10,000) per shift for each shift thereafter in which compliance by the respondent contractor(s) has not been completed. The arbitrator shall retain jurisdiction to determine compliance for this Section.

ARTICLE VII

DISPUTES AND GRIEVANCES

Section 1 (a). This Agreement is intended to provide close cooperation between management and labor. The Agreement Coordinator and the Los Angeles-Orange County Building and Construction Trades Council, AFL-CIO, shall each assign a representative to this Project for the purpose of assisting the BCTD, the International and Local Unions, together with the Contractor, to complete the construction of the Project economically, efficiently, continuously and without interruption, delays or work stoppages.

(b) PCI, the Contractors, Unions, and employees collectively and individually, realize the importance to all parties to maintain continuous and uninterrupted performance of the work of the Project, and agree to resolve disputes in accordance with the arbitration provisions set forth in this Article.

(c) The Agreement Coordinator shall administer the processing of grievances under this Article, Articles VI and VIII, including the scheduling and arrangement of facilities for meetings, the selection of the arbitrator to hear the case, and any other administrative matters necessary to facilitate the timely disposition of the case; provided, however, it is the responsibility of the principal parties to any pending grievance to insure that time limits and deadlines are met.

Section 2. Any question arising out of and during the term of this Agreement involving its interpretation and application (other than trade jurisdictional disputes or alleged violations of

Article VI, Section 1) shall be considered a grievance and subject to resolution under the following procedures.

- i. **Step 1. Employee Grievances.** When any employee subject to the provisions of this Agreement feels aggrieved by a violation of this Agreement, the employee shall, through his Local Union business representative or job steward, within three (3) working days after the occurrence of the violation, give notice to the work site representative of the involved Contractor stating the provision(s) alleged to have been violated. A business representative of the Local Union or the job steward and the work site representative of the involved Contractor shall meet and endeavor to adjust the matter within three (3) working days after timely notice has been given. If they fail to resolve the matter within the prescribed period, the grieving party may, within forty-eight (48) hours thereafter, pursue Step 2 of the grievance procedure provided the grievance is reduced to writing, setting forth the relevant information concerning the alleged grievance, including a short description thereof, the date on which the grievance occurred, and the provision(s) of the Agreement alleged to have been violated. Grievances and disputes settled at Step 1 shall be non-precedential except as to the parties directly involved unless endorsed by the Agreement Coordinator within five (5) days after resolution has been reached.
- ii. **Union or Contractor Grievance.** Should the Local Union(s) or Agreement Coordinator or any Contractor have a dispute with the other party and, if after conferring within ten (10) working days after the disputing party knew or should have known of the facts or occurrence giving rise to the dispute, a settlement is not reached within three (3) working days, the dispute shall be reduced to writing and proceed to step 2 in the same manner as outlined in 1(a), above, for the adjustment of an employee complaint.

Step 2. The Business Manager of the involved Local Union or his Designee, together with the International Union representative of that union, the site representative of the involved Contractor, and the labor relations representative of the Agreement Coordinator shall meet within seven (7) working days of the referral of the dispute to this second step to arrive at a satisfactory settlement thereof. If the parties fail to reach an agreement, the dispute may be appealed in writing in accordance with the provisions of Step 3 within seven (7) calendar days after the initial meeting at Step 2.

- iii. Step 3(a). If the grievance shall have been submitted but not resolved under Step 2, either party may request in writing to the Agreement Coordinator (with copy(ies) to the other party(ies)) within seven (7) calendar days after the initial Step 2 meeting, that the grievance be submitted to an arbitrator selected from a permanent panel of three (3) arbitrators (**Howard S. Block, William Estes and Michael D. Rappaport**) pre-selected by the negotiating parties to this Agreement. If the panel has not been agreed upon by the parties, arbitrator selection shall be made pursuant to the rules of the American Arbitration Association, which shall also govern the conduct of the arbitration hearing. The decision of the arbitrator shall be final and binding on all parties and the fee and expenses of such arbitrations shall be borne equally by the involved Contractor and the involved Union(s).

(b) Failure of the grieving party to adhere to the time limits established herein shall render the grievance null and void. The time limits established herein may be extended only by written consent of the parties involved at the particular step where the extension is agreed upon. The arbitrator shall have the authority to make decisions only on issues presented and shall not have the authority to change, amend, add to or detract from any of the provisions of this Agreement.

Section 3. No adjustment or decision may provide retroactivity exceeding sixty (60) days prior to the date of the filing of a written grievance.

Section 4. Procedures contained in this Article VII shall not be applicable to any alleged violation of Article VI, with the single exception that any employee discharged for violation of Article VI, Section 1, may resort to the procedures of Article VII to determine only if he/she was, in fact, engaged in that violation.

Section 5. The Agreement Coordinator shall be notified by the involved Contractor of all actions at Steps 2 and 3 and shall, upon its request, be permitted to participate fully in all proceedings at such steps.

ARTICLE VIII

WORK ASSIGNMENTS AND JURISDICTIONAL DISPUTES

Section 1. The assignment of work will be solely the responsibility of the contractor performing the work involved; and such work assignments will be in accordance with the Plan for the Settlement of Jurisdictional Disputes in the Construction Industry (the "Plan") or any successor Plan.

Section 2. All jurisdictional disputes between or among Building and Construction Trades Unions and employees, parties to this Agreement shall be settled and adjusted according to

the present Plan established by the Building and Construction Trades Department or any other plan or method of procedure that may be adopted in the future by the Building and Construction Trades Department. Decisions rendered shall be final, binding and conclusive on the Contractors and Unions, parties to this Agreement.

Section 3. All jurisdictional disputes shall be resolved without the occurrence of any strike, work stoppage, or slowdown of any nature, and the Contractor's assignment shall be adhered to until the dispute is resolved. Individuals violating this section shall be subject to immediate discharge.

Section 4. Each Contractor will conduct a pre-job conference with the appropriate Building and Construction Trades Council prior to commencing work. The Agreement Coordinator will be advised in advance of all such conferences and may participate if it wishes.

ARTICLE IX **WAGES AND BENEFITS**

Section 1. All employees covered by this Agreement shall be classified in accordance with work performed and paid the hourly wage rates for those classifications in compliance with the applicable prevailing federal or state rate determination. If a wage increase negotiated in a local agreement becomes the prevailing wage under state law, the Contractor will pay that rate as of the effective date of the new prevailing rate. If the prevailing wage laws are repealed during the term of this Agreement, the Contractor shall pay the wage rates established under the Schedule As, except as otherwise provided in this Agreement.

Section 2. Contractor is to pay contributions to the established employee benefits funds in the amounts designated in the appropriate Schedule A and to make all employee-authorized deductions in the amounts designated in the appropriate Schedule A; provided, however, that the Contractor and the Union agree that only such bona fide employee benefits as accrue to the direct benefit of the employees (such as pension and annuity, health and welfare, vacation, apprenticeship, training funds, etc.) shall be included in this requirement and required to be paid by the Contractor on this Project; and provided that such contributions shall not exceed the contribution amounts set forth in the applicable prevailing wage determination. Bona fide jointly-trusted benefit plans or authorized employee deduction programs established or negotiated under the applicable Schedule A or by the parties to this Agreement during the life of this Agreement may be added, subject to the limitations upon such negotiated changes contained in Article XVII, Section 2 of this Agreement, and provided that contributions do not exceed contribution amounts set forth in the applicable prevailing wage determination.

The Contractor adopts and agrees to be bound by the written terms of the applicable, legally established, trust agreement(s) specifying the detailed basis on which payments are to be made into, and benefits paid out of, such Trust Funds for his employees. The Contractor authorizes the parties to such Trust Funds to appoint Trustees and successor

Trustees to administer the Trust Funds and hereby ratifies and accepts the Trustees so appointed as if made by the Contractor.

Section 3. All employees covered by this Agreement may be paid by check, paid no later than the end of the work each shift Friday. No more than five (5) days' wages may be withheld in any pay period. Any employee who is discharged or laid off shall be entitled to receive all accrued wages immediately upon discharge or layoff.

Section 4. Wage premiums, including but not limited to pay based on height of work, hazard pay, scaffold pay, and special skill shall not be applicable to work under this Agreement, except to the extent provided for in any applicable prevailing wage determination.

ARTICLE X

HOURS OF WORK, OVERTIME, SHIFTS AND HOLIDAY

Section 1. Work Day and Work Week. Eight (8) hours per day between the hours of 6:00 A.M. and 5:30 P.M., plus one-half (½) hour unpaid for lunch, approximately mid-way through the shift, shall constitute the standard work day. Forty (40) hours per week shall constitute a regular week's work. The work week will start on Monday and conclude on Sunday. The foregoing provisions of this Article are applicable unless otherwise provided in the applicable prevailing wage determination, or unless changes are permitted by law and such are agreed upon by the parties. Nothing herein shall be construed as guaranteeing any employee eight (8) hours per day or forty (40) hours per week, or a Monday through Friday work schedule.

Section 2. Starting Times. Employees shall be at their place of work at the starting time and shall remain at their place of work (as designated by the Contractor) performing their assigned functions until quitting time. The place of work shall be defined as the gang or tool box, or equipment at the employee's assigned work location or the place where the foreman gives instructions. The parties reaffirm their policy of a fair day's work for a fair day's wage. There shall be no pay for time not worked unless the employee is otherwise engaged at the direction of the Contractor.

Section 3. Overtime. Overtime shall be paid in accordance with the requirements of the applicable Prevailing Wage Determination. There will be no restriction on the Contractor's scheduling of overtime or the non-discriminatory designation of employees who will work. There shall be no pyramiding of overtime pay under any circumstances.

Section 4(a). Shifts. Shift work may be performed at the option of the Contractor(s) upon three (3) days' prior notice to the affected Union(s), unless a shorter notice period is provided in the applicable Schedule A, and shall continue for a period of not less than five (5) working days. Saturdays and Sundays, if worked, may be used for establishing the five (5) day minimum work shift. If two shifts are worked, each shall consist of eight (8) hours of continuous work exclusive of a one-half (½) hour non-paid lunch period, for eight (8) hours

straight time pay, without any premium or differential. Any third shift shall consist of six and one half (6½) hours of continuous work exclusive of one-half (½) hour non-paid lunch period for eight (8) hours straight time pay, without any premium or differential.

The last shift starting on or before 6:00 P.M. Friday shall be considered Friday work time; while the first shift ending at or after 6:00 A.M. on Monday shall be considered Monday work time. The shift starting at or after 6:00 A.M. is designated as the first shift, with the second shift following.

(b) Because of operational necessities, the second and/or third shifts may, at the Agreement Coordinator's direction, be scheduled without the preceding shift(s) having been worked. It is recognized the Airport operations may require restructuring of normal work schedules. Except in an emergency, Contractor shall give the affected union(s) at least three (3) days notice of schedule changes.

Section 5. 4-10's. A 4-10 schedule may be worked on the project consistent with the provisions of the Schedule A(s) of the affected Union(s) and the California prevailing wage law.

Section 6. Make-Up Day. A make-up day may be scheduled in a manner consistent with the Schedule A(s) of the affected Union(s) in the California prevailing wage law.

Section 7. Holidays. Holidays shall be those recognized in Schedule "A".

Section 8(a). Reporting Pay. Employees reporting for work and for whom no work is provided, except when given notification not to report to work, shall receive two (2) hours pay at the applicable hourly rate. Employees who are directed to start work shall receive a minimum of four (4) hours of pay at the applicable hourly rate. Employees who work beyond four (4) hours shall be paid for actual hours worked. Whenever reporting pay is provided for employees, they will be required to remain at the Project site available for work for such time as they receive pay, unless released earlier by the principal supervisor of the Contractor(s) or their designated representative. Each employee shall furnish his/her Contractor with his/her current address and telephone number, and shall promptly report any changes in each to the Contractor.

(b) When an employee who is sent to the job site from the union referral facility in response to a request by the Contractor for an employee for one (1) day starts work, the employee will be paid eight (8) hours.

(c) When an employee leaves the job or work location of his own volition or is discharged for cause or is not working as a result of the Contractor's invocation of Article XI, Section 3, the employee shall be paid only for the actual time worked.

Section 9. Call Out Pay. When an employee has completed his scheduled shift and is "called out" to perform special work of a casual, incidental or irregular nature, he shall

receive pay at the appropriate overtime rate for actual hours worked with a minimum guarantee of the wage equivalent of four (4) hours' pay at the employee's straight time rate. This does not apply to time worked as an extension (before or after) of the employee's normal shift.

Section 10. Time Keeping. The Contractor may utilize "brassing" (or similar) systems to check employees in and out. Each employee must check himself in and out. The Contractor will provide adequate facilities for checking in and out in an expeditious manner.

Section 11. Meal Period. The Contractor will schedule a meal period not more than one-half hour duration at the work location approximately midway into the scheduled work shift, consistent with Section 1; provided, however, that the Contractor may, for efficiency of the operation, establish a schedule which coordinates the meal periods of two or more crafts. If an employee is required to work through his meal period, he shall be compensated in a manner established in the applicable Schedule A.

ARTICLE XI APPRENTICES

Section 1. The parties recognize the need to maintain continuing support of programs designed to develop adequate numbers of competent workers in the construction industry, and the special need and obligation to capitalize on the availability of the local workforce in the Los Angeles area, especially minorities and women entering the construction industry. To these ends, the Contractor will employ apprentices in their respective crafts to perform such work as is within their capabilities and which is customarily performed by the craft in which they are indentured. Further, the parties will facilitate and encourage local residents, minorities and women to commence and progress in apprenticeship programs in the construction industry.

Section 2. Apprentices may comprise up to twenty (20) percent of each craft's work force at any time, unless an applicable Schedule A provides for a greater percentage. The Union agrees to cooperate with the Contractor in furnishing apprentices as requested up to the maximum percentage. The apprentice ratio for each craft shall be in compliance with the applicable provision(s) of the Labor Code relating to utilization of apprentices. The City shall encourage such utilization. If the Schedule A and prevailing wage determination permit, other non-journeyman classifications may be utilized at the Contractor's discretion as part of the twenty (20) percent ratio, or other applicable ratio.

Section 3. It is recognized that special procedures may be established by joint agreement of the parties to this Agreement and governmental agencies for the training and employment of persons who have not previously qualified to be employed on construction projects of the type covered by this Agreement. The parties agree that they will make all good faith efforts to assist in the proper implementation of such orders, regulations or agreements for the general benefit of the residents of Los Angeles.

ARTICLE XII
SECURITY, SAFETY, PROTECTION OF PERSON AND PROPERTY

Section 1(a). In accordance with the requirements of the Occupational Safety and Health Act, it shall be the exclusive responsibility of each Contractor on the job site to ensure safe working conditions for its employees and their compliance with any safety rules contained herein or established by the City, the Agreement Coordinator and/or the Contractor. It is understood that the employees have an individual obligation to use diligent care to perform their work in a safe manner and to protect themselves and the property of the Contractor and the City.

(b) Employees shall be bound by the reasonable safety, security and visitor rules established by the Contractor, the Agreement Coordinator and/or the City. These rules will be published and posted in conspicuous places throughout the work site. An employee's failure to satisfy his obligations under this Section will subject him to discipline, including discharge.

(c) The Agreement Coordinator may establish and implement, after consultation with the Union, reasonable substance abuse testing procedures and regulations, which may include pre-hire, reasonable cause, random, and post-accident testing, to the extent permitted by Federal and state law.

Section 2. The inspection of incoming shipments of equipment, machinery and construction materials of every kind shall be performed at the discretion of the Contractor by individuals of its choice.

Section 3. All parties recognize the special security provisions required and mandated by construction work on a major airport, and all parties to the Agreement and all employees under the Agreement will fully comply with all federal, state and city required security rules.

Section 4. A Contractor may suspend all or a portion of the job to protect the life and safety of an employee. In such cases, employees will be compensated only for the actual time worked; provided, however, that where the contractor requests employees to remain at the site and available for work, the employees will be compensated for the standby time at their basic hourly rate of pay.

Section 5. The Contractor shall provide adequate supplies of drinking water and sanitary facilities for all employees.

Section 6. Should the City institute an Owner Controlled Insurance Program (OCIP), and further, as part of that Program, request that medical care delivery and/or ADR programs be instituted under this Agreement pursuant to Section 3201.5 of the Labor Code, the Council parties to this Agreement will meet with the Agreement Coordinator and negotiate in good

faith the appropriate concepts for such provisions and develop for approval by all parties the details of such program for implementation on the project.

ARTICLE XIII **NON-DISCRIMINATION**

Section 1. The Contractor and Union agree that they will not discriminate against any employee or applicant for employment because of race, sex, creed, national origin, color, disability as defined by law, disabled veteran status, Vietnam veteran status, religion, age (40 and above), medical condition, marital status, ancestry, or sexual orientation in any manner prohibited by law or regulation. The Union shall cooperate with the Contractors' obligations to take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to such status. Relevant employment actions shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Any complaints regarding the application of this provision shall be brought to the immediate attention of the involved contractor for consideration and resolution.

Section 2. It is recognized that the City and federal governments have certain policies and commitments for the utilization of business enterprises owned and/or controlled by minorities, women, the disadvantaged or others. The parties shall jointly endeavor to assure that these commitments are fully met and that any provisions of this Agreement which may appear to interfere with any minority, women, disadvantaged or other owned business enterprise successfully bidding for work within the scope of this Agreement shall be carefully reviewed, and adjustments made as may be appropriate and agreed upon among the parties, to assure full compliance with the spirit and letter of the governments' policies and commitments in all applicable federal, state and local rules and regulations relating to employment and utilization of said business enterprises. City's policies and commitments and all applicable Federal, state and local rules and regulations relating to employment and utilization of minorities and minority and/or women owned businesses.

ARTICLE XIV **TRAVEL AND SUBSISTENCE**

Travel expenses, travel time, subsistence allowance and/or zone rates and parking reimbursements shall not be applicable to work under this Agreement except to the extent provided for in any applicable prevailing wage determination.

Section 1. The parties recognize that the Project site is an active International Airport facility, subject to significant traffic and security restrictions. Under these circumstances, it may be impossible for employees to travel independently to their place or work. Therefore, where travelers restricted to transportation supplied by the City or the Contractor, or must be escorted, parking facilities for employees' personal vehicles shall be provided at designated

location(s) for pick-up by the City or Contractor provided transportation or for escort to the work site. Transportation and/or escorted ingress shall be scheduled to permit employees to be at their place of work at the scheduled starting time. Employees arriving at their work location after their normal starting time as the result of any delay in the scheduled arrival of Contractor-furnished transportation shall be compensated from their normal starting time at the appropriate rate.

Section 2. Where employees are required to travel by City or Contractor provided transportation, they shall be compensated with an allowance equal to an amount calculated at their straight time rate of pay for the time spent in transit from the work site to the designated pick-up location at the end of their shift. Time spent in travel to or from the work site shall not constitute time worked.

ARTICLE XV **WORKING CONDITIONS**

Section 1. There will be no rest periods, organized coffee breaks or other non-working time established during working hours. Individual coffee containers will be permitted at the employee's work location.

Section 2. The City and/or the Agreement Coordinator shall establish such reasonable Project rules as the City or Agreement Coordinator deems appropriate and not inconsistent with this Agreement. These rules will be explained at the pre-job conference and posted at the Project site by the Contractor and may be amended thereafter as necessary. Failure to observe these rules and regulations by any employer may be grounds for discipline, including discharge.

Section 3. There shall be no restrictions on the emergency use of any tools by any qualified employee or supervisor; or on the use of any tools or equipment for the performance of work within the jurisdiction, provided the employee can safely use the tools and/or the equipment involved and is in compliance with applicable governmental rules and regulations.

Section 4. Recognizing the nature of the work being conducted on the site, employee access by a private automobile may be restricted to certain roads and/or parking areas.

Section 5. Unless expressly permitted otherwise by the City, all employees working for Contractors signatory to this Agreement are prohibited from utilization of the public areas of LAX, and public facilities of the City, including without limitation, sanitary facilities, eating establishments and parking areas.

Section 6. Certain rules of conduct and security have been established by city, state, and federal governmental agencies which are applicable to all employees under the Agreement and which may change from time to time. Employees will be notified of such rules and must

observe rules at all times. Failure to do so may result in discipline up to and including discharge.

ARTICLE XVI **PRE-JOB CONFERENCES**

Consistent with Article VIII, Section 4, all work assignments shall be disclosed by the Contractor at a pre-job conference held in accordance with industry practice. The Contractor shall notify the Agreement Coordinator at least two weeks before starting work under this Agreement, and the Agreement Coordinator shall coordinate the scheduling of the pre-job conference with the Los Angeles Council, the Contractor(s) and the affected Union(s). Should there be any formal jurisdictional dispute raised under Article VIII, the Agreement Coordinator shall be notified promptly.

ARTICLE XVII **LABOR/MANAGEMENT COOPERATION**

Section 1. The parties to this Agreement will form a joint committee consisting of representatives selected by the BCTD, the Councils, the Crafts, and PCI. The Committee shall be chaired by a representative of PCI and a representative of the Los Angeles Council. The purpose of the Committee shall be to promote harmonious and stable labor-management relations on this Project, to insure effective and constructive communications between labor and management parties, and to advance the proficiency of the workmen in the industry.

Section 2. The Committee shall meet on a monthly basis or at the call of the joint chairs to discuss the administration of the Agreement, the progress of the Project, labor/management problems that may arise, and any other matters consistent with this Agreement. Substantive grievances or disputes arising under Articles VI, VII and/or VIII shall not be reviewed or discussed by this Committee, but shall be processed pursuant to the provisions of the appropriate Article.

The Agreement Coordinator shall be responsible for the scheduling of the meetings, the preparation of the agenda topics for the meeting with input from the Unions, the Contractors and the City. Notice of the date, time and place of the meeting shall be given to the Committee members at least three (3) days prior to the meeting. The City, the Building and Construction Trades Department, AFL-CIO, and the Building and Construction Trades Council of California shall be notified of the meetings and invited to send a representative to participate.

Section 3. The Committee may form sub-committees to consider and advise the full Committee with regard to safety and health issues affecting the Project; general employment issues (including availability of skilled trades and of minority, women, disadvantaged or other individuals who should be assisted with appropriate training for qualification for apprenticeship programs); and similar issues affecting the overall Project, including any

workers compensation program initiated under this Agreement. Further, the Committee, or an appropriate sub-committee, shall regularly review apprentice utilization and provide a quarterly report regarding such to the Commission.

ARTICLE XVIII

SAVINGS AND SEPARABILITY

Section 1. It is not the intention of either the Contractor or the Union parties to violate any laws governing the subject matter of this Agreement. The parties hereto agree that in the event any provisions of the Agreements are finally held or determined to be illegal or void as being in contravention of any applicable law, the remainder of the Agreement shall remain in full force and effect unless the part or parts so found to be void are wholly inseparable from the remaining portions of this Agreement. Further, the Contractor and Union agree that if and when any provisions of this Agreement are finally held or determined to be illegal or void by the court of competent jurisdiction, the parties will promptly enter into negotiations concerning the substance affected by such decision for the purpose of achieving conformity with the requirements or any applicable law and the intent of the parties hereto.

Section 2. The parties recognize the right of the City to withdraw, at its absolute discretion, the utilization of this Agreement as part of any bid specification should a court of competent jurisdiction issue any order, or any applicable statute be invoked which contains any self-applying provision, either of which could result, temporarily or permanently, in delay of the bidding, awarding, and/or construction work on the Project. Notwithstanding such an action by the City, or such court order or statutory provision, the Parties agree that the Agreement shall remain in full force and effect on the Project, to the maximum extent legally possible.

Section 3. The occurrence of events covered by Section 1 and/or 2 above shall not be construed to waive the prohibitions of Article VI.

ARTICLE XIX

DURATION OF THE AGREEMENT

Section 1. Duration. This Project Labor Agreement shall be effective on November 19, 1999, and shall continue in effect until December 31, 2010, and thereafter with regard to any work covered by this Agreement commenced prior to December 31, 2010, but not turned over prior to that date. The Agreement may be extended by mutual agreement of the City and the Unions, for a period not to exceed ten (10) additional years. If either wishes to extend the Agreement they shall notify the other twelve (12) months prior to December 31, 2010.

Section 2(a). Turnover. Construction of any phase, portion, section or segment of the Project shall be deemed complete when such phase, portion, section or segments has been turned over to the City by the Contractor and the City has accepted such phase, portion, section or segment. As areas and systems of the Project are inspected and construction tested

and/or approved by the Agreement Coordinator and accepted by the City or third parties with the approval of the City, the Agreement shall have no further force or effect on such items or areas, except when the Contractor is directed by the Agreement Coordinator or City to engage in repairs or modifications required by its contract(s) with the City or Agreement Coordinator.

(b) Notice. Notice of each final acceptance received by the Contractor will be provided to the Union with a description of what portion, segment, etc. has been accepted. Final acceptance may be subject to a "punch" list, and in such case, the Agreement will continue to apply to each such item on the list until it is completed to the satisfaction of the City and Notice of Acceptance is given by the City to the Contractor. At the request of the Union, complete information describing any "punch" list work, as well as any additional work required of a Contractor at the direction of the City pursuant to Article II, Section 8, involving otherwise turned-over or completed facilities which have been accepted by the City, will be available from the Agreement Coordinator.

(c) Termination. Final termination of all obligations, rights and liabilities and disagreements shall occur upon receipt by the Union of a notice from the Agreement Coordinator or City saying that no work remains within the scope of the Agreement for the Agreement Coordinator or its successor.

Section 3. Schedule As incorporated as part of this Project Agreement shall continue in full force and effect until the contractor and/or union parties to the Collective Bargaining Agreements which are the basis for such Schedule As notify the Agreement Coordinator of mutually agreed upon changes in such Agreements and their effective date(s).

The parties agree to recognize and implement such changes on their effective dates, provided, however, that any provisions negotiated in said collective bargaining agreements will not apply to work covered by this Agreement if such provisions are less favorable to the contractor under the Agreement than those uniformly required of contractors for construction work normally covered by those Agreements; nor shall any provision be recognized or applied if it may be construed to apply exclusively or predominantly to work covered by this Agreement. Any disagreement between the parties over the incorporation into a Schedule A of any such provision agreed upon in the negotiation of the local collective bargaining agreement which serves as the basis for the Schedule A shall be resolved under the procedures established in Article VII. As part of this understanding, the Contractor agrees and consents to pay the increased wages and increased contributions to the relevant jointly administered trust funds pursuant to the provisions of any collective bargaining agreements negotiated by the unions during the work performed on the Project at such time as the increases are incorporated into the applicable prevailing rate determination, as of the effective date of such prevailing rate determination.

Section 4. The Union agrees that there will be no strikes, work stoppages, sympathy strikes, picketing slowdowns, or any other disruptive activity affecting the Project by any union involved in the negotiation of such local collective bargaining agreements and the resulting Schedule As, nor shall there be any lock-out on this Project affecting the Union during the course of such negotiations.

In witness whereof, the parties have caused this Agreement to be executed and effective as of the day and year first above written:

For the Agreement Coordinator:

For the Union:


President
Parsons Constructors Inc.


President
Building and Construction
Trades Department, AFL-CIO


President
Building and Construction
Trades Council of California


Los Angeles-Orange County
Building and Construction Trades Council

International Unions

INTERNATIONAL ASSOCIATION
OF HEAT AND FROST INSULATORS
AND ASBESTOS WORKERS:

William Edward

Affiliated District Councils
and/or Local Unions

Asbestos Workers Local 5

By: Charles M. M. M. M.

INTERNATIONAL BROTHERHOOD OF
BOILERMAKERS, IRON SHIP BUILDERS,
BLACKSMITHS, FITTERS AND HELPERS:

Edward J. M. M. M.

Boilermakers Local 92

By: Edward J. M. M. M.

INTERNATIONAL UNION OF
BRICKLAYERS AND ALLIED
CRAFTWORKERS:

John J. Flynn

Bricklayers Local #4
By: John J. Flynn

UNITED BROTHERHOOD OF
CARPENTERS AND JOINERS OF
AMERICA:

Raymond J. M. M. M.

SOUTHERN CALIFORNIA CONFEDERATE
OF CARPENTERS

By: Gordon J. M. M. M.

INTERNATIONAL BROTHERHOOD OF
ELECTRICAL WORKERS:

J. J. Barry

I. B. E. W. #11
By: L. D. Lampert

INTERNATIONAL UNION OF ELEVATOR
CONSTRUCTORS

Edward C. Sullivan

I. U. E. C. LOCAL #18
By: Robert A. Brown

INTERNATIONAL ASSOCIATION OF
BRIDGE, STRUCTURAL, ORNAMENTAL
AND REINFORCING IRON WORKERS:

John West

Local 416 + Local 433
By: Joe Hard
General Organizer

LABORERS' INTERNATIONAL UNION
OF NORTH AMERICA:

James M. O'Brien

LABORERS' LOCAL #300
By: Stephen Hanwin

INTERNATIONAL UNION OF
OPERATING ENGINEERS:

James A. Honeys

OPERATING ENGINEERS' LOCAL #12

By: Steve Bell

OPERATIVE PLASTERERS' AND
CEMENT MASONS' INTERNATIONAL
ASSOCIATION OF THE UNITED STATES
AND CANADA:

John J. Dougherty

Plasterers' Local 200

B. P. Ryan

Cement Masons Local 600

By: W. J. Jacobs

INTERNATIONAL BROTHERHOOD OF
PAINTERS AND ALLIED TRADES:

Michael E. Moore

PAINTERS + ALLIED TRADES J.C. #36

By: John P. Quinn

UNITED UNION OF ROOFERS,
WATERPROOFERS AND ALLIED
WORKERS:

Carl J. Bruce

Robert P. Quinn

By: Local #36 Roofers

SHEET METAL WORKERS
INTERNATIONAL ASSOCIATION:

Michael J. Sullivan

LOCAL UNION 108

By: Raymond [Signature]

INTERNATIONAL BROTHERHOOD
OF TEAMSTERS:

James P. Hoppa

Teamsters Local 420

By: [Signature]

UNITED ASSOCIATION OF JOURNEYMEN
AND APPRENTICES OF THE PLUMBING
AND PIPE FITTING INDUSTRY OF THE
UNITED STATES AND CANADA:

Anthony J. Haddad

Lb Jones

By: L.U. 250

L.V. 761
By: Steve Reed

U.A. LOCAL 209

By: William R. Jones

L.A. LOCAL 345

By: [Signature]

ATTACHMENT 1

LETTER OF ASSENT

[To be Signed by All Contractors Undertaking **Work Covered**
By the Project Labor Agreement Prior to Commencing Work]

(Contractor Letterhead)

Agreement Coordinator
c/o Parsons Constructors Inc.
100 West Walnut Street
Pasadena, California 91124
Attn: Zavonna Ford

Re: Los Angeles International Airport Project
Labor Agreement – Letter of Assent

Dear Sir:

This is to confirm that (Name of Company) agrees to be a party to and bound by the Los Angeles International Airport Project Labor Agreement (the "Agreement") as entered into by and between Parsons Constructors Inc., its successors or assignees, and the Building and Construction Trades Department, AFL-CIO and other Building and Construction Trades Councils and signatory unions, dated November 19, 1999, as such agreement may, from time to time, be amended by the negotiating parties or interpreted pursuant to its terms.

Such obligation to be a party to and bound by this Agreement shall extend all work covered by the Agreement undertaken by this Company on the (Project Name) Project, and this Company shall require all its subcontractors, or whatever tier, to be similarly bound for all their work within the Scope of the Agreement by signing an identical Letter of Assent.

Sincerely,

(Name of Construction Company)

By:

(Name of Title of Authorized Executive)

Cc: City of Los Angeles, Department of Airports

(Copies of this Letter will be available for inspection or copying on request of the Union).

ADDENDUM 1

The parties to the Los Angeles International Airport Construction Project Labor Agreement (the "Agreement"), effective November 19, 1999, together with the Building and Construction Trades Council of San Bernardino and Riverside Counties and its affiliated unions, having fully considered the terms and conditions of the Agreement, mutually agree that the benefits, rights, duties, and obligations established by that Agreement should be fully available for and applicable to major construction work which may be undertaken in the future at other airports under the control and direction of the City of Los Angeles Department of Airports, acting through the Board of Airport Commissioners; and

Now, therefore, with the signatures of the duly authorized representatives of the Agreement Coordinator and of the Department and its affiliated International Unions, the Councils, and affiliated Local Unions, respectively, the above-referenced Project Labor Agreement is hereby amended as follows:

1. The Agreement shall be known as the "Los Angeles Department of Airports Construction Project Labor Agreement";

2. Article II, Section 1 is revised to read as follows:

Section 1. The Project is generally defined as, and limited to:

(a) The renovation, rehabilitation and improvement of the Tom Bradley International Terminal Facility, Los Angeles International Airport, in an approximately 285,000 square foot infill area of that Terminal, and which will include the renovation of airline and public lounge area, baggage claim

facilities, and the Federal Inspection Service and Department administrative offices; and

(b) Such other major construction, rehabilitation, and renovation projects involving airport-related facilities at Los Angeles International Airport (LAX), Van Nuys Airport, Palmdale Airport, and/or Ontario Airport, as are designated by the City to be covered by this Agreement.

It is understood by the parties that the City may at any time and at its sole discretion determine to build segments of the Project under this Agreement not currently proposed, or to modify or not build any one or more of the particular segments proposed to be covered;

3. Article XIV, Section 1 is revised by deleting the word "International" from the first sentence.

4. All references in the Agreement to LAX shall refer to all Airports covered under this Agreement at which work covered within the scope of this Agreement is being performed.

5. All references in the Agreement to the Building and Construction Trades Council of Los Angeles-Orange County or the Los Angeles-Orange County Building and Construction Trades Council, AFL-CIO or the Los Angeles Council shall include and refer to both the Los Angeles/Orange Counties Council and the San Bernardino and Riverside Counties Council.

6. Further, the undersigned understand that Parsons Constructors Inc. has not been, and may or may not be, awarded the contract to administer the Agreement upon its

implementation, and therefore agree that, as appropriate, references to "PCI" shall be considered as references to the then current "Agreement Coordinator."

7. Finally, the undersigned agree to replace Attachment 1 (Letter of Assent) to the Agreement, with Attachment 1 (Letter of Assent) attached hereto.

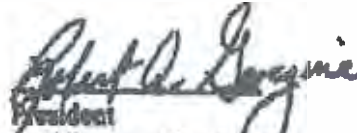
It is agreed that there are no further changes to the remainder of the Agreement.

Effective the 1st day of May, 2000.

For the Agreement Coordinator:


President
Parsons Constructors Inc.

For the Union:


President
Building and Construction
Trades Department, AFL-CIO


President
Building and Construction
Trades Council of California


Los Angeles-Orange County
Building and Construction Trades Council


San Bernardino and Riverside
Counties Building and
Construction Trades Council

A Dept. of Airports Construction Project Labor Agreement - Addendum 1 - Signatures (cont'd).

Local Unions Affiliated with the San Bernardino
and Riverside Building and Construction Trades Council

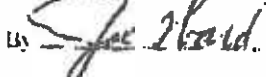
Local 5, Asbestos Workers

By: 

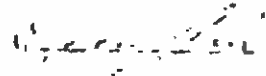
Local 4, IBCAC

By: 

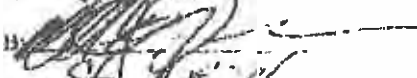
Iron Workers, Local #416

By: 


Lathers, Local #883

By: 

Operating Engineers, Local #12

By: 

By: 

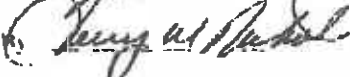
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By: 

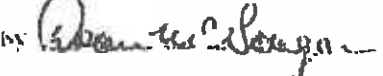
Southern California Painters
District Council 36

By: 

SAFALA, Local #101

By: 

Local #398

By: 

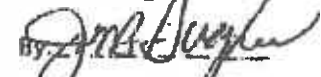
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By: 

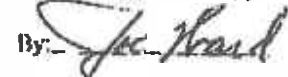
Boilermakers, Local 92

By: 

Local #77, IBEW

By: 

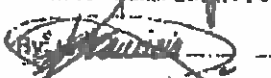
Iron Workers, Local #435

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Plasterers, Local #300

By: 

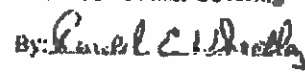
Cement Masons, Local #561

By: 

Glaziers, Local Union #31

By: 

Local #1247, Floor Covering

By: 

Local #220, Riggers

By: 

Teamsters, Local #166

By: 

Tile, Marble & Terrazzo #18

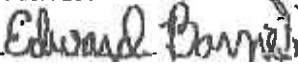

By: 

LA Dept. of Airports Construction Project Labor Agreement - Addendum 1 - Signatures (cont'd).

Local Unions Affiliated with the San Bernardino
and Riverside Building and Construction Trades Council

LA Local 250

By:

Piledrivers Local #2375



LA Local 345

By:



Millwrights Local #1607

By:



ADDENDUM 2
(Superseded by Item 8 of the 2020 Amendment)

1800 M Street, N.W.
Washington, D.C. 20036-5859
202-467-7000
Fax: 202-467-7176

**Morgan, Lewis
& Bockius LLP**
C O U N S E L O R S A T L A W

E. Carl Uehlein, Jr.
(202) 467-7076

REVISED

April 16, 2001

Howard S. Block, Esq.
Wellington Plaza
505 East First Street, Suite G
Tustin, California 92680-3305

R. Wayne Estes, Esq.
220 Verde Vista Drive
Thousand Oaks, California 91360

John Kagel, Esq.
Kagel & Kagel
544 Market Street
San Francisco, California 94104

Michael Rappaport, Esq.
15445 Ventura Boulevard
Suite 84
Sherman Oaks, California 91403

Re: Los Angeles International Airport Project
 Labor Agreement - Permanent Arbitrators

Gentlemen:

Enclosed for your information is a copy of the Project Labor Agreement negotiated between Parsons Constructors Inc. and the Building and Construction Trades Department, AFL-CIO, the Building and Construction Trades Council of California, the Los Angeles/Orange Counties Building and Construction Trades Council, the San Bernardino/Riverside Counties Building and Construction Trades Council, and the Southern California District Council of Carpenters for work to be undertaken at Los Angeles International Airport. This is expected to be a multi-year, multi-billion dollar construction program. It is critical to all parties and to the citizens of Greater Los Angeles that any and all differences, disputes, and grievances be resolved peacefully under the procedures established by the Agreement. To help meet this goal, the parties have agreed to request your services as permanent arbitrators.

You will recognize the enclosed as similar in many ways to the Agreements negotiated on behalf of The Metropolitan Water District of Southern California, under which each of you already serves as a permanent arbitrator. It is the desire of the parties that each of you fill the same roles under the LAX Agreement; specifically, for disputes arising under Article II, Section 4(b) and as a member of the Panel from which an arbitrator is selected for disputes arising under Article VIII, Howard S. Block; for disputes arising under Article VI, John Kagel; and as additional members of the Panel under Article VIII, William Estes and Michael D. Rappaport. We hope you will agree to serve.

1-1A-150000.1

Philadelphia	Washington	New York	Los Angeles	Miami	Harrisburg	Pittsburgh	Princeton
London	Brasilia	Frankfurt	Tokyo	Singapore	Jakarta		

April 16, 2001
Page 2

If you are willing to be so designated, I would appreciate it if you would advise me, as representative of the Project Administrator and the Owner, and Richard Slawson, Executive Director of the Los Angeles Council, as the designated representative of the union parties. When replying, please indicate your address for purposes of regular mail and overnight delivery, as well as preferred telephone number and facsimile numbers for contacting you quickly.

Thank you for your cooperation and your willingness to serve on this important Project.

Should you have any questions with regard to this matter, I would welcome the opportunity to discuss them with you.

With best personal regards.

Sincerely,



E. Carl Uehlein, Jr.

ECUjr/cg

Enclosure

cc: Richard Slawson (w/o enclosure)
Executive Secretary
Los Angeles/Orange Counties Building and
Construction Trades Council, AFL-CIO
1626 Beverly Blvd.
Los Angeles, California 90026-5784

Building and Construction Trades Department, AFL-CIO (w/o enclosure)
Building and Construction Trades Council of California (w/o enclosure)
Building and Construction Trades Council of San Bernardino
and Riverside Counties (w/o enclosure)
Southern California District County of Carpenters (w/o enclosure)
Los Angeles International Airport (w/o enclosure)
Parsons Constructors Inc. (w/o enclosure)

ADDENDUM 3
(Superseded by Item 8 of the 2020 Amendment)

MEMORANDUM OF UNDERSTANDING

between

PARSONS CONSTRUCTORS INC.,

**LOS ANGELES/ORANGE COUNTIES BUILDING & CONSTRUCTION TRADES COUNCIL AFL-CIO,
SAN BERNARDINO AND RIVERSIDE COUNTY BUILDING AND CONSTRUCTION TRADES COUNCIL, and
SOUTHWEST REGIONAL COUNCIL OF CARPENTERS**

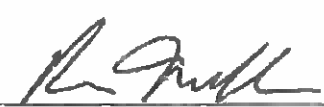
**RE: Los Angeles World Airports Project Labor Agreement
Article II, Section 4(b) and Article VII, Section 2(iii)
Updated List of Available Arbitrators**

It is hereby agreed between the following parties that Louis Zigman will replace Howard Block as the arbitrator under Article II Section 4(b) due to Mr. Block's retirement. In addition, the permanent panel of three arbitrators listed in Article VII, Section 2(iii) has been updated. The parties agree that Joseph Gentile, Louis Zigman and Michael Rappaport are designated as the permanent panel of three arbitrators.



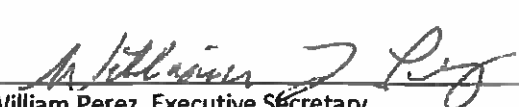
Daniel Sloan, Director of Labor Relations & General Manager
Parsons Constructors Inc.
LAWA PLA Agreement Coordinator

2-18-16
Date



Ron Miller, Executive Secretary
Los Angeles and Orange Counties
Building & Construction Trades Council AFL-CIO

12-21-15
Date



William Perez, Executive Secretary
San Bernardino and Riverside Counties
Building & Construction Trades Council AFL-CIO

1/24/16
Date



Floyd Clay, Assistant Supervisor
Southwest Regional Council of Carpenters

12-21-15
Date

ADDENDUM 4

PARSONS

Parsons Constructors Inc.
100 West Walnut Street • Pasadena, California 91124 • (626) 440-3000 • Fax (626) 440-2516

December 14, 1999

Mr. Richard Slawson
Executive Secretary
Los Angeles/Orange Counties Building
and Construction Trades Council, AFL-CIO
1626 Beverly Boulevard
Los Angeles, California 90026-5784

Re: Los Angeles International Airport – Project Labor Agreement -
Redi-Mix Concrete, Sand and Gravel, and Aggregate Delivery

Dear Dick:

In our negotiations for the captioned Project Labor Agreement, the Teamsters raised concerns about the coverage of the above-referenced work under the Agreement. After discussions and consultation with counsel, the parties recognized and agreed that the limitations of Federal Labor Law do not permit the inclusion of such deliveries under the terms of the Project Labor Agreement because they do not typically constitute work to be performed at the site of the construction within the meaning of the National Labor Relations Act.

Under these circumstances, and recognizing the importance of labor stability for the work covered by this Agreement, the Department of Airports has agreed that it will advise and remind contractors working under the Agreement of the importance of maintaining labor peace and harmony on the Project. These contractors will be encouraged to consider the potential effect on such labor stability when contracting for delivery of redi-mix, sand and gravel, and aggregate.

Should the suppliers or contractors not act in a manner consistent with the spirit and intent of this letter and the Agreement, the Department will take action appropriate to the situation and its legal rights.

Sincerely,



Michael W. D'Antuono
President
Parsons Constructors Inc.
Agreement Coordinator for the Department of Airports

cc: City of Los Angeles, Department of Airports



ADDENDUM 5

PARSONS

Parsons Constructors Inc.
100 West Walnut Street • Pasadena, California 91124 • (626) 440-3000 • Fax: (626) 440-2518

December 9, 1999

VIA FACSIMILE

Mr. Edward C. Sullivan
General President
International Union of Elevator Constructors
Clark Building, #310
5565 Sterrett Place
Columbia, Maryland 21044

Mr. Ernie Brown
Business Manager
International Union of Elevator
Constructors, Local 18
100 South Mentor Avenue
Pasadena, California 91106

Re: Los Angeles International Airport Project Labor Agreement

Gentlemen:

Consistent with our discussion as part of the negotiations for the above-referenced Agreement, it is understood and agreed that the International Union of Elevator Constructors and its Local 18 will execute the Project Labor Agreement. In consideration thereof, Parsons Constructors Inc. and the Unions specifically agree that where there is a conflict, the terms and conditions of the Project Labor Agreement shall supersede and override the terms and conditions of any and all other national, area or local collective bargaining agreements, except that the work of the International Union of Elevator Constructors within the scope of this Project Labor Agreement shall be performed under the terms of its national agreements, with the exception of Articles VI, VII and VIII, which shall apply to such work; and with the further understanding that work within the scope of the Agreement will be awarded consistent with the terms of the Project Labor Agreement provided that the successful contractor (and subcontractors of whatever tier) agree to execute the Letter of Assent (Attachment A) to the Agreement; and finally with the understanding that all employees working within the scope of the Agreement and within the craft jurisdiction of the International Union of Elevator Constructors shall be referred and/or employed in a manner consistent with Article III of the Project Labor Agreement.



Edward C. Sullivan
Ernie Brown
December 9, 1999
Page 2

If you are in agreement with the above understandings, we would appreciate your execution of a copy of this letter and returning the executed copy to the undersigned.

Thank you for your cooperation in this manner. The City of Los Angeles, its Department of Airports, and Parsons Constructors Inc. look forward to working with the International Union of Elevator Constructors under this Agreement.


Sincerely,



Michael W. D'Antuono
President
Parsons Constructors Inc.

cc: Los Angeles International Airport
E. Carl Uehlin, Jr., Esq.
Special Counsel for Parsons Constructors Inc. and
Los Angeles International Airport

Agreed: 
President
International Union of Elevator Constructors

Agreed: 
Business Manager, Local 18
International Union of Elevator Constructors

ADDENDUM 6

AMENDMENT OF THE LOS ANGELES WORLD AIRPORTS PROJECT LABOR AGREEMENT

The Parties agree that Section 1 of Article XIX of the Project Labor Agreement is hereby amended as follows:

Section 1(a). Duration. The Project Labor Agreement shall be effective on November 19, 1999, and shall continue in effect until December 31, 2010, and thereafter with regard to any work covered by this Agreement commenced prior to December 31, 2010, but not turned over prior to that date. The Agreement may be extended by mutual agreement of the City and the Unions, for a period not to exceed ten (10) additional years. If either wishes to extend the Agreement they shall notify the other twelve (12) months prior to December 31, 2010.

Section 1(b) The signatory parties mutually agree this 3rd day of December, 2010, to extend the existing Agreement effective January 1, 2011, for an additional ten (10) years, through December 31, 2020. This Agreement shall apply to all Project designated construction work awarded through December 31, 2020, for work meeting conditions established in Article II, Section 1(a)(b), and shall continue in effect until December 31, 2020, and thereafter with regard to any work covered by this Agreement commenced prior to December 31, 2020, but not turned over prior to that date. The Agreement may be extended by mutual agreement of the City and the Unions with twelve (12) months notice to the other party.

This Amendment may be executed in one or more counterparts, each of which shall be deemed an original, but all which together shall constitute one and the same instrument. Facsimile signatures are to be deemed equivalent to original "wet ink" signatures under this Amendment.

For the Agreement Coordinator:

By: Mark Johnson
Vice-President
Parsons Constructors, Inc.

By: Gary D. [Signature]
Program Manager / Regional Manager
Labor Relations
Parsons Constructors, Inc.

For the Unions:

By: Mark H. [Signature]
President
Building and Construction
Trades Department, AFL-CIO

By: _____
President
Building and Construction
Trades Council of California, AFL-CIO

By: Orlando [Signature]
Los Angeles and Orange County
Building and Construction Trades Council

By: Walter [Signature]
San Bernardino and Riverside County
Building and Construction Trades Council

Signatory Unions (signatures continue on next page)

International Unions

INTERNATIONAL ASSOCIATION OF HEAT AND
FROST INSULATORS AND ABSESTOS WORKERS:

James A. Bryan

INTERNATIONAL ASSOCIATION OF BRIDGE,
STRUCTURAL, ORNAMENTAL AND REINFORCING
IRON WORKERS:

Joseph J. Joffe

INTERNATIONAL BROTHERHOOD OF
BOILERMAKERS, IRON SHIP BUILDERS,
BLACKSMITHS, FORGERS AND HELPERS:

Newton B. Jones

LABORERS' INTERNATIONAL UNION OF NORTH
AMERICA:

James M. O'Sullivan

INTERNATIONAL UNION OF BRICKLAYERS AND
ALLIED CRAFTWORKERS:

John J. Flynn

INTERNATIONAL UNION OF OPERATING
ENGINEERS:

Lyndon J. Packer

UNITED BROTHERHOOD OF CARPENTERS AND
JOINERS OF AMERICA:

Wayne J. McLean

OPERATIVE PLASTERERS' AND CEMENT
MASONS' INTERNATIONAL ASSOCIATION OF
THE UNITED STATES AND CANADA:

Robert R. Donley

INTERNATIONAL BROTHERHOOD OF
ELECTRICAL WORKERS:

Edwin D. Hine

INTERNATIONAL UNION OF PAINTERS AND
ALLIED TRADES:

James A. Walker

INTERNATIONAL UNION OF ELEVATOR
CONSTRUCTORS:

John C. Bryan

UNITED UNION OF ROOFERS, WATERPROOFERS
AND ALLIED WORKERS:

King M. R.

International Unions

SHEET METAL WORKERS INTERNATIONAL
ASSOCIATION:

Michael J. Sullivan

INTERNATIONAL BROTHERHOOD OF
TEAMSTERS:

James P. Vozza

UNITED ASSOCIATION OF JOURNEYMEN AND
APPRENTICES OF THE PLUMBING AND PIPE
FITTING INDUSTRY OF THE UNITED STATES AND
CANADA

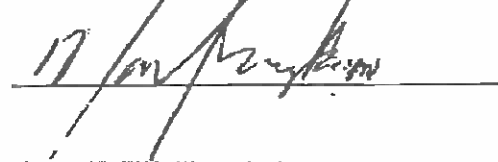
William P. Nite

Los Angeles / Orange Counties Building and Construction Trades

ASBESTOS HEAT & FROST INSULATORS LOCAL 5



INTERNATIONAL BROTHERHOOD OF
ELECTRICAL WORKERS (IBEW) LOCAL 11



BOILERMAKERS LOCAL 92



LABORERS LOCAL 300



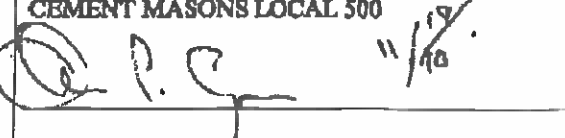
BRICKLAYERS & ALLIED CRAFTWORKERS
LOCAL 4



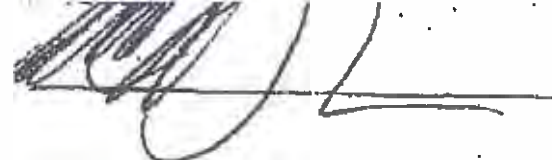
MILLWRIGHTS & ERECTORS LOCAL 1607



CEMENT MASONS LOCAL 500

 "1/10"

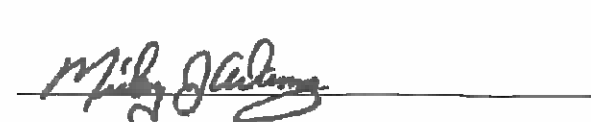
OPERATING ENGINEERS LOCAL 12



CEMENT MASONS LOCAL 500

 Thon (Sagunto)

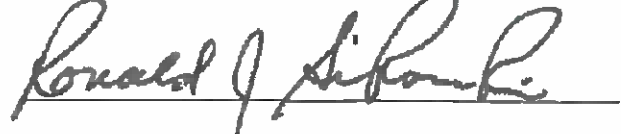
OPERATING ENGINEERS LOCAL 12



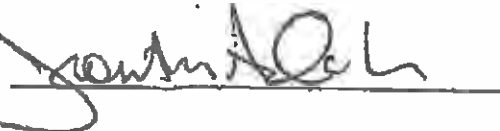
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OPERATING ENGINEERS LOCAL 12



GLAZIERS LOCAL 636

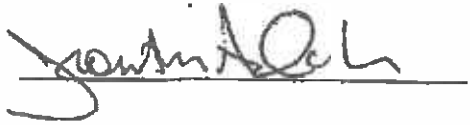


GUNITE WORKERS LOCAL 345

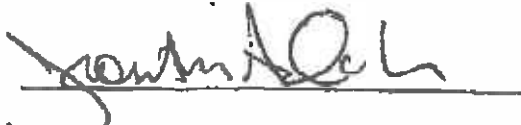


Los Angeles / Orange Counties Building and Construction Trades

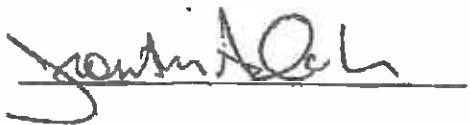
PAINTERS LOCAL 256



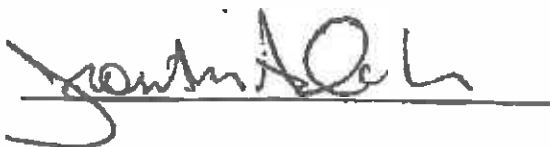
PAINTERS & ALLIED TRADES DISTRICT COUNCIL
36



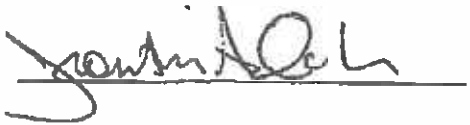
PAINTERS LOCAL 1595



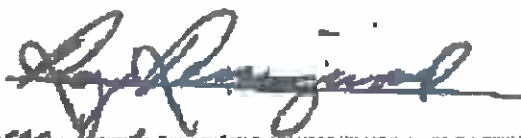
PAINTERS LOCAL 95



PAINTERS LOCAL 1991



SHEET METAL WORKERS LOCAL 105



PILE DRIVERS LOCAL 2375



SO CAL PIPE TRADES DISTRICT COUNCIL #16



PLASTERERS LOCAL 200



STRUCTURAL IRONWORKERS LOCAL 433



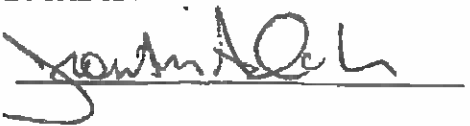
REINFORCED IRONWORKERS LOCAL 416



TEAMSTERS LOCAL 986



RESILIENT FLOOR & DECORATIVE COVERING
LOCAL 1247



TILE, MARBLE & TERRAZO LAYERS LOCAL 18



Los Angeles / Orange Counties Building and Construction Trades

U.A. PIPE FITTERS LOCAL 550

Manuel Dominguez

U.A. LANDSCAPE, IRRIGATION, UNDERGROUND
& SPECIALTY PIPING LOCAL 348

[Signature]

ROOFERS & WATERPROOFERS LOCAL 36

Joe C. Padilla

U.A. PLUMBERS & STEAMFITTERS LOCAL 398

Ray E. De Vangie Jr.

U.A. PLUMBERS & FITTERS LOCAL 761

[Signature]

U.A. SPRINKLER FITTERS LOCAL 709

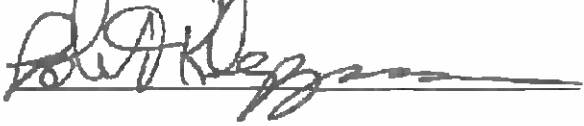
Michael P. [Signature]

SOUTHWEST REGIONAL COUNCIL
OF CARPENTERS

Gordon K. [Signature]

Riverside / San Bernardino Counties Building and Construction Trades

ASBESTOS HEAT & FROST INSULATORS LOCAL 5



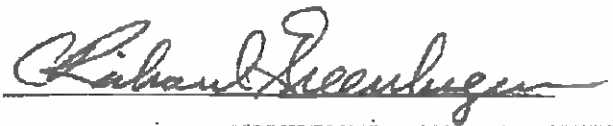
PLASTERERS LOCAL 200



BOILERMAKERS LOCAL 92



REINFORCED IRONWORKERS LOCAL 416



BRICKLAYERS & ALLIED CRAFTWORKERS
LOCAL 4



RESILIENT FLOOR & DECORATIVE COVERING
LOCAL 1247



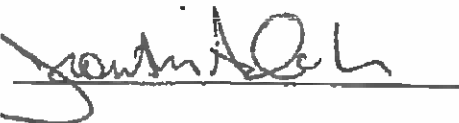
CEMENT MASONS LOCAL 500

 11/19/10

ROOFERS LOCAL 220



GLAZIERS LOCAL 636



STRUCTURAL IRONWORKERS LOCAL 433



INTERNATIONAL BROTHERHOOD OF
ELECTRICAL WORKERS (IBEW) LOCAL 477



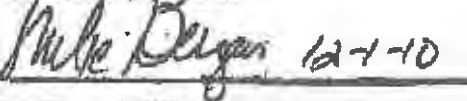
SHEET METAL WORKERS LOCAL 105



LABORERS LOCAL 783



TEAMSTERS LOCAL 186

 12-1-10

OPERATING ENGINEERS LOCAL 12



TILE, MARBLE & TERRAZO LAYERS LOCAL 18



Riverside / San Bernardino Counties Building and Construction Trades

OPERATING ENGINEERS LOCAL 12

Mike J. Adams

OPERATING ENGINEERS LOCAL 12

Ronald J. Sifon R.

U.A. PIPE FITTERS LOCAL 250

George M. Vasquez Jr. Jr.

U.A. LANDSCAPE, IRRIGATION, UNDERGROUND
& SPECIALITY PIPING LOCAL 345

[Signature]

U.A. PLUMBERS & STEAMPITTERS LOCAL 398

Ray E. De Vang Jr.

U.A. SPRINKLER FITTERS LOCAL 709

Michael P. [Signature]

SOUTHWEST REGIONAL COUNCIL
OF CARPENTERS

Gordon K. [Signature]

SOUTHERN CALIFORNIA PAINTERS DISTRICT
COUNCIL 36

[Signature]

ELEVATOR CONSTRUCTORS LOCAL 18

[Signature]

ADDENDUM 7

LOS ANGELES INTERNATIONAL AIRPORT CONSTRUCTION PROJECT LABOR AGREEMENT

CLARIFICATION

To All Contractors, Subcontractors and Signatory Unions

The parties of the Agreement had several meetings during the course of the year to discuss and finally arrive at the 10 year extension of the LAWA PLA. The following issues were agreed to further clarify the parties' intent as clarifications/guidance which will assist in the Administration of the LAWA PLA over the next 10 years of the extension.

(1) LAX PLA Article III, Section 6 Contractor Hiring Obligations

It is understood that all contractors and subcontractors ("contractors") awarded contracts or sub-contracts pursuant to proposals, to undertake covered work under the terms of this Agreement and referred for bid after January 1, 2011, are legally obligated pursuant to their commercial contracts relating to such covered work, to maximize the employment of qualified local persons residing within the area of the Project, with the goal that at least 30% of each contractor's employees hired under this Agreement shall be either residents of the cities immediately adjacent to LAX or of the City of Los Angeles ("local residents"). Contractors shall develop a hiring plan and maintain records of their compliance efforts. The contractors and the signatory unions will make every good faith effort to request for referral and to refer, respectively, qualified individuals meeting the local residency requirement.

In recognition of these obligations, the signatory unions, as the prime referral source, as well as the apprenticeship programs in which the signatory unions participate, shall cooperate and work with the contractors, LAWA, the City of Los Angeles, and the organizations designated by LAWA, to assist in the identification and training of local residents for work and the referral of such persons to work opportunities arising under this Agreement.

The contractors and referral systems of the signatory unions will maintain records with regard to all requests for referral, referrals, and employment of local residents. Such records shall be available upon request to the Agreement Coordinator.

(2) Article XI Apprentices – Apprentices, as used in this Agreement shall be those registered and participating in Joint Labor/Management Apprenticeship Programs approved by the State of California Department of Industrial Relations, Division of Apprenticeship Standards.

(3) Article VIII Section 2 – Correction in second line: Change "employees" to "employers."

SAN BERNARDINO AND RIVERSIDE COUNTIES
BUILDING AND CONSTRUCTION TRADES COUNCIL

William J. Ray DATE 12/1/2010

LOS ANGELES/ORANGE COUNTY
BUILDING AND CONSTRUCTION TRADES COUNCIL

Orlando Alvarado DATE 12-3-10

PARSONS CONSTRUCTORS INC., on behalf of LAWA
LAWA PLA COORDINATOR

Gregory J. Ray DATE 12/3/10



09/03/20

ADDENDUM 8

CRAFT EMPLOYEE REQUEST FORM

LAX PROJECT

FAX FORM TO: NAME OF UNION _____ FAX NUMBER _____ DATE: _____

CC: LAX Local Hire Coordinator / Christina Watkins - Tel: 323-217-4976 / cwatkins@lawa.org

LAX - LOCAL HIRE ZIPCODES

Impact Area (Inglewood, El Segundo, Lennox, Culver City, Hawthorne, L.A.)

90043	90044	90045	90047	90066	90094	90230	90245	90250	90293	90301	90302
90303	90304	90305									

Local Residents (Culver City, Hawthorne, L.A.)

90001	90002	90003	90004	90005	90006	90007	90008	90010	90011	90012	90013
90014	90015	90016	90017	90018	90019	90020	90021	90023	90024	90025	90026
90027	90028	90029	90031	90032	90033	90034	90035	90036	90037	90038	90039
90041	90042	90046	90048	90049	90056	90057	90058	90059	90061	90062	90063
90064	90065	90067	90068	90069	90071	90077	90089	90095	90210	90211	90212
90232	90247	90248	90272	90290	90291	90292	90402	90501	90502	90710	90717
90731	90732	90744	90810	91040	91042	91214	91303	91304	91306	91307	91311
91316	91324	91325	91326	91330	91331	91335	91340	91342	91343	91344	91345
91352	91356	91364	91367	91401	91402	91403	91405	91406	91411	91423	91436
91504	91505	91601	91602	91604	91605	91606	91607	91608	*90073		

*Veterans Administration

CRAFT WORKERS REQUEST:

QTY#	CRAFT POSITION	JOURNEYMEN OR APPRENTICE	LOCAL DISTRICT RESIDENT	DATE	TIME
			✓		
			✓		
			✓		

Please have the worker(s) report to the following project site address indicated below:

Project/Contractor Name: _____

Site Address: _____ Report to: _____

On-site Tel. #: _____ On-site Fax: _____

Comment or special Instructions: _____

Union Use Only		
Reception Date: _____	Dispatch Date: _____	Received By: _____
<u>Requested Dispatch</u> Local District Resident Worker	<u>Available for Dispatch</u> <input type="checkbox"/>	<u>Unavailable for Dispatch</u> <input type="checkbox"/>

CONTRACTOR:

1. Please complete and fax this form to the Local Trade Union and LAX Local Hire Coordinator.
2. Retain request form for your records. Call the Local Trade union to verify receipt of the request.

LOCAL TRADE UNION:

1. Please complete the "Union Use Only" section and fax/email the form back to the requesting Contractor and the LAX Local Hire Coordinator.
2. Retain the completed form for your records and reporting.

ADDENDUM 9 (OBSOLETE)

RESOLUTION NO. 24316

WHEREAS, on recommendation of Management, there was presented for approval, designation of certain Los Angeles World Airports Phase II Capital Improvement Program Projects to be covered by a Project Labor Agreement between Parsons Constructors, Inc. and the Building and Construction Trades Department (AFL-CIO), the Building and Construction Trades Council of California and the Building and Construction Trades Council of Los Angeles and Orange Counties, and their affiliated international and local unions or any subsequent Project Labor Agreement; and

WHEREAS, on July 7, 2008, the Board of Airport Commissioners (BOAC) through Resolution 23600 designated the following Phase I Capital Improvement Program Projects for coverage by the Project Labor Agreement (PLA):

- Crossfield Taxiway Project – Taxiway C-13 Construction with Bridge
- Crossfield Taxiway Project – Taxiway D Extension West to Taxiway C-13
- Tom Bradley International Terminal (TBIT) New Large Aircraft (NLA) Gates Project – TBIT South 4 Gates
- TBIT NLA Gates Project – TBIT Apron South 4 Gates
- TBIT NLA Gates Project – Pedestrian Tunnel Structure
- TBIT NLA Gates Project – TBIT Additions (“Bump-out”)
- TBIT NLA Gates Project – TBIT North 3 Gates
- TBIT NLA Gates Project – TBIT Apron North 3 Gates; and

WHEREAS, timely and successful completion of construction work on projects covered by a PLA is critical to Los Angeles World Airports’ (LAWA) safe and efficient movement of passengers and cargo. It is essential that work on these projects be performed in a timely and economical manner that maximizes airport security and safety, without interruption. Labor management stability and cooperation are critical to this. A PLA helps to insure the completion of projects and increases the participation of local residents in Los Angeles International Airport (LAX) development employment opportunities; and

WHEREAS, the following list of Phase II Projects will be covered by a PLA:

	Approximate Cost in Millions
• Taxi Lane T	\$ 75
• Demolition of the AA Low Bay Hanger	TBD
• Partial Demolition and Upgrading of the Former TWA Maintenance Hanger	TBD
• Demolition and Relocation of the AA deluge System	TBD
• Construction of new Remain Over Night (RON) parking positions	TBD
• Central Utilities Plant	\$280
• Runway Safety Area Improvements- Southside	\$ 20
• Interim Taxiway Safety Improvements	\$ 60
• CTA Architectural Enhancements	TBD
• Electrical Network Station	\$ 35
• Terminal 1 Modernization	\$ 50
• Terminal 3 Modernization	\$ 50
• Electrical Systems Upgrades	\$ 50

(Table continued)

• TBIT Connector to T3 and T4	\$200
• Northside Terminal Complex Improvement	\$500
• CTA Utility Distribution – Phase II	\$ 75
• Taxiway B Rehabilitation	\$ 25
• Taxiway C Extension	\$ 35
• LAX CTA Roadway Improvements	TBD
• Century Cargo Complex Improvements	TBD
• AOA Perimeter Fence Improvements	\$ 20
<i>(not including projects whose costs not yet estimated) Total:</i>	
\$1,625,000,000; and	

WHEREAS, the parties to any PLA understand that there is no obligation for LAWA to deliver these projects, but that if and when they are built by LAWA the projects will be covered by a PLA. Beginning in 2013, the BOAC will review all capital project lists for coverage by a PLA every two (2) years; and

WHEREAS, this action, as a continuing administrative and personnel-related activity, is exempt from the requirements of the California Environmental Quality Act (CEQA) pursuant to Article II Section 2(f) of the Los Angeles CEQA Guidelines; and

WHEREAS, actions taken on this item by the Board of Airport Commissioners will become final pursuant to the provisions of Los Angeles City Charter Section 245;

NOW, THEREFORE, BE IT RESOLVED that the Board of Airport Commissioners determined that this action is exempt from the California Environmental Quality Act requirements, adopted the Staff Report, approved the designation of the above listed Phase II Capital Improvement Program Projects at Los Angeles International Airport for coverage by a Project Labor Agreement, and authorized the Executive Director to provide notification as per the Project Labor Agreement of such coverage.

o0o

I hereby certify that this Resolution No. 24316 is true and correct, as adopted by the Board of Airport Commissioners at its Special Meeting held on Monday, December 6, 2010.

Sandra J. Miller – Secretary
BOARD OF AIRPORT COMMISSIONERS

ADDENDUM NO. 10

DRUG AND ALCOHOL TESTING POLICY

The Parties recognize the problems that drug and alcohol abuse have created in the construction industry and the need to develop drug and alcohol abuse prevention programs. Accordingly, the Parties agree that in order to enhance the safety of the workplace and to maintain a drug and alcohol-free work environment, individual Employers shall require applicants or employees to undergo drug and alcohol testing in accordance with this PLA, hereafter "Agreement" and this policy, Addendum No. 10 – Drug and Alcohol Testing Policy, hereafter "Policy". The term "Employer", as used in this Policy, shall have the same meaning as the term "Contractor", as defined in the Agreement.

1. It is understood that the use, possession, transfer or sale of illegal drugs, narcotics, or other unlawful substances, as well as being under the influence of alcohol and the possession or consuming alcohol is absolutely prohibited while employees are on the Employer's job premises or while working on any jobsite in connection with work performed under the Agreement.
2. No Employer may implement a drug and alcohol testing program that does not conform in all respects to the provisions of this Policy.
3. No Employer may implement drug and alcohol testing at any jobsite unless written notice is given to the Union setting forth the location of the jobsite, a description of the Project under construction, and the name and telephone number of the Employer's project manager. Said notice shall be provided at the pre-job conferences for each Project. Employers shall not commence work on the Project until said notice is given and failure to give said notice shall make any drug and alcohol testing engaged in by the Contractor invalid until such notice is provided. For Employers who fail to give said notice, the Agreement Coordinator shall work with the contracting entity and prime contractor to resolve such violations of this section, to the extent of withholding progress payments for the work performed by the Employer in violation until said notice is given. Any disagreements regarding the interpretation or application of this Policy shall be subject to resolution under the Article 7 grievance procedure.
4. An Employer who elects to implement drug and alcohol testing pursuant to this Policy shall require all employees on the Project to be tested. With respect to individuals who become employed on the Project subsequent to the proper implementation of a valid drug and alcohol testing program, such test shall be administered upon the commencement of employment on the Project, whether by referral from a Union Dispatch Office, transfer from another Project, or another method. Individuals who were employed on the Project prior to the proper implementation of a valid drug and alcohol testing program may only be subjected to testing for the reasons set forth in paragraphs 5(g)(1) through 5(g)(3) and paragraphs 6(a) through 6(e) of this Policy. Refusal to undergo such testing shall be considered sufficient grounds to deny employment on the Project.

5. The following procedure shall apply to all drug and alcohol testing:

- a. The Employer may request urine samples only. The applicant or employee shall not be observed when the urine specimen is given. An applicant or employee, at his or her sole option, shall, upon request, receive a blood test in lieu of a urine test. No employee of the Employer shall draw blood from a bargaining unit employee, touch or handle urine specimens, or in any way become involved in the chain of custody of urine or blood specimens. A Union Business Representative, subject to the approval of the individual applicant or employee, shall be permitted to accompany the applicant or employee to the collection facility to observe the collection, bottling, and sealing of the specimen.
- b. An Employer may request an applicant to perform an alcohol breathalyzer test, at a certified laboratory only and cutoff levels shall be those mandated by applicable state or federal law.
- c. The testing shall be done by a laboratory approved by the Substance Abuse & Mental Health Services Administration (SAMHSA), which is chosen by the Employer and the Union.
- d. An initial test shall be performed using the Enzyme Multiplied Immunoassay Technique (EMIT). In the event a question or positive result arises from the initial test, a confirmation test must be utilized before action can be taken against the applicant or employee. The confirmation test will be by Gas Chromatography/Mass Spectrometry (GC/MS). Cutoff levels for both the initial test and confirmation test will be those established by SAMHSA and this Policy. Should these SAMHSA levels be changed during the course of the Agreement or new testing procedures are approved, then these new regulations will be deemed as part of this existing Policy. Confirmed positive samples will be retained by the testing laboratory in secured long-term frozen storage for a minimum of one (1) year. Handling and transportation of each sample must be documented through strict chain of custody procedures.
- e. In the event of a confirmed positive test result the applicant or employee may request, within forty-eight (48) hours, a sample of his/her specimen from the testing laboratory for purposes of a second test to be performed at a second laboratory, designated by the Union and approved by SAMHSA. The retest must be performed within ten (10) days of the request. Chain of custody for this sample shall be maintained by the Employer between the original testing laboratory and the Union's designated laboratory. Retesting shall be performed at the applicant's or employee's expense. In the event of conflicting test results the Employer may require a third test, at the Employer's expense.
- f. If, as a result of the above testing procedure, it is determined that an applicant or employee has tested positive, this shall be considered sufficient grounds to deny the applicant or employee his/her employment on the Project.

- g. No individual who tests negative for drugs and alcohol pursuant to the above procedure and becomes employed on the Project shall again be subjected to drug and alcohol testing with the following exceptions:
 - 1. Employees who are involved in industrial accidents resulting in damage to plant, property or equipment or injury to him/her or others may be tested for drugs or alcohol pursuant to the procedures stated hereinabove.
 - 2. The Employer may test employees following thirty (30) days' advance written notice to the employee(s) to be tested and to the applicable Union. Notice to the applicable Union shall be sent by certified mail to the affected Union with a copy to the Agreement Coordinator. Such testing shall be pursuant to the procedures stated hereinabove.
 - 3. The Employer may test an employee where the Employer has reasonable cause to believe that the employee is impaired from performing his/her job. Reasonable cause shall be defined as being aberrant or unusual behavior, the type of which is a recognized and accepted symptom of impairment (e.g., slurred speech, unusual lack of muscular coordination.). Such behavior must be actually observed by at least two (2) persons, one (1) of whom shall be a supervisor who has been trained to recognize the symptoms of drug and alcohol abuse or impairment and the other of whom shall be the Job Steward. If the Job Steward is unavailable or there is no Job Steward on the Project the other person shall be a member of the applicable Union's bargaining unit. Testing shall be pursuant to the procedures stated hereinabove. Employees who are tested pursuant to the exceptions set forth in this paragraph and who test positive will be removed from the Employer's payroll.
 - h. Applicants or employees who do not test positive shall be paid for all time lost while undergoing drug and alcohol testing. Payment shall be at the applicable wage and benefit rates set forth in the applicable Union's Master Labor Agreement. Applicants who have been dispatched from the Union and who are not put to work pending the results of a test will be paid waiting time until such time as they are put to work. It is understood that an applicant must pass the test as a condition of employment. Applicants who are put to work pending the results of a test will be considered probationary employees.
6. The Employers will be allowed to conduct periodic jobsite drug and alcohol testing on the Project under the following conditions:
- a. The entire jobsite must be tested, including any employee or sub Employer's employee who worked on that Project three (3) working days before or after the date of the test;
 - b. Jobsite testing cannot commence sooner than fifteen (15) days after start of the work on the Project;

- c. Prior to start of periodic testing, a Business Representative will be allowed to conduct an educational period on company time to explain periodic jobsite testing program to affected employees;
 - d. Testing shall be conducted by a SAMHSA certified laboratory, pursuant to the provisions set forth in paragraph 5 hereinabove.
 - e. Only two (2) periodic tests may be performed in a twelve (12) month period.
- 7. It is understood that the unsafe use of prescribed medication, or where the use of prescribed medication impairs the employee's ability to perform work, is a basis for the Employer to remove the employee from the jobsite.
 - 8. Any grievance or dispute that may arise out of the application of this Policy shall be subject to the grievance and arbitration procedures set forth in the Agreement.
 - 9. The establishment or operation of this Policy shall not curtail any right of any employee found in any law, rule or regulation. Should any part of this Policy be found unlawful by a court of competent jurisdiction or a public agency having jurisdiction over the Parties, the remaining portions of the Agreement shall be unaffected, and the Parties shall enter negotiations to replace the affected provision.
 - 10. Present employees, if tested positive, shall have the prerogative for rehabilitation program at the employee's expense. When such program has been successfully completed the Employer shall not discriminate in any way against the employee. If work for which the employee is qualified exists on the Project, he/she shall be reinstated.
 - 11. The Employer agrees that results of urine and blood tests performed hereunder will be considered medical records held confidential to the extent permitted or required by law. Such records shall not be released to any persons or entities other than designated Employer representatives and the applicable Union. Such release to the applicable Union shall only be allowed upon the signing of a written release by the employee, and the information contained therein shall not be used to discourage the employment of the individual applicant or employee on any subsequent occasion.
 - 12. Employees who seek voluntary assistance for substance abuse may not be disciplined for seeking such assistance. Requests from employees for such assistance shall remain confidential and shall not be revealed to other employees or management personnel without the employee's consent. Employees enrolled in substance abuse programs will be subject to all Employer rules, regulations and job performance standards with the understanding that an employee enrolled in such a program is receiving treatment for an illness.
 - 13. The Employer shall indemnify and hold the Union, City, and Agreement Coordinator harmless against any and all claims, demands, suits, or liabilities that may arise out of the application of this Policy.

14. This Policy shall constitute the only Policy in effect between the Parties concerning drug and alcohol abuse, prevention and testing. Any modifications thereto must be accomplished pursuant to collective bargaining negotiations between the Parties.

APPENDIX A: SPECIMEN REPORTING CRITERIA

Initial Test Analyte	Initial Test Cutoff ¹	Confirmatory Test Analyte	Confirmatory Test Cutoff Concentration
Marijuana metabolites (THCA) ²	50 ng/ml ³	THCA	15 ng/ml
Cocaine metabolite (Benzoylecgonine)	150 ng/ml ³	Benzoylecgonine	100 ng/ml
Codeine/ Morphine	2000 ng/ml	Codeine Morphine	2000 ng/ml 2000 ng/ml
Hydrocodone/ Hydromorphone	300 ng/ml	Hydrocodone Hydromorphone	100 ng/ml 100 ng/ml
Alcohol	See Section 5.b.	Ethanol	See Section 5.b.
Oxycodone/ Oxymorphone	100 ng/ml	Oxycodone Oxymorphone	100 ng/ml 100 ng/ml
6-Acetylmorphine	10 ng/ml	6-Acetylmorphine	10 ng/ml
Phencyclidine	25 ng/ml	Phencyclidine	25 ng/ml
Amphetamine/ Methamphetamine	500 ng/ml	Amphetamine Methamphetamine	250 ng/ml 250 ng/ml
MDMA ⁴ /MDA ⁵	500 ng/ml	MDMA MDA	250 ng/ml 250 ng/ml
Initial Test Analyte	Initial Test Cutoff	Confirmatory Test Analyte	Confirmatory Test Cutoff Concentration
Barbiturates	300 ng/ml	Barbiturates	200 ng/ml
Benzodiazepines	300 ng/ml	Benzodiazepines	300 ng/ml
Methadone ⁶	300 ng/ml	Methadone	100 ng/ml
Methaqualone	300 ng/ml	Methaqualone	300 ng/ml
Propoxyphene	300 ng/ml	Propoxyphene	100 ng/ml

¹For grouped analytes (i.e., two or more analytes that are in the same drug class and have the same initial test cutoff):

Immunoassay: The test must be calibrated with one analyte from the group identified as the target analyte. The cross-reactivity of the immunoassay to the other analyte(s) within the group must be 80 percent or greater; if not, separate immunoassays must be used for the analytes within the group.

Alternate technology: Either one analyte or all analytes from the group must be used for calibration, depending on the technology. At least one analyte within the group must have a concentration equal to or greater than the initial test cutoff or, alternatively, the sum of the analytes present (i.e., equal to or greater than the laboratory's validated limit of quantification) must be equal to or greater than the initial test cutoff.

²An immunoassay must be calibrated with the target analyte, 9-tetrahydrocannabinol-9-carboxylic acid (THCA).

³**Alternate technology (THCA and benzoylecgonine):** The confirmatory test cutoff must be used for an alternate technology initial test that is specific for the target analyte (i.e., 15 ng/ml for THCA, 100 ng/ml for benzoylecgonine).

⁴Methylenedioxymethamphetamine (MDMA)

⁵Methylenedioxymphetamine (MDA)

⁶Employees with a prescription for methadone who are using the medication as prescribed, and are not impaired and can safely perform their work, will not be considered to have violated this Policy.

**SIDE LETTER OF AGREEMENT
TESTING POLICY FOR DRUG ABUSE**

It is hereby agreed between the Parties hereto that an Employer who has otherwise properly implemented drug and alcohol testing, as set forth in the Policy, shall have the right to offer an applicant or employee a "quick" drug screening test. This "quick" screen test shall consist either of the "ICUP" urine screen or similar test or an oral screen test. The applicant or employee shall have the absolute right to select either of the two "quick" screen tests, or to reject both and request a full drug test.

An applicant or employee who selects one of the "quick" screen tests, and who passes the test, shall be put to work immediately. An applicant or employee who fails the "quick" screen test, or who rejects the "quick" screen tests, shall be tested pursuant to the procedures set forth in the Policy. The sample used for the "quick" screen test shall be discarded immediately upon conclusion of the test. An applicant or employee shall not be deprived of any rights granted to them by the Policy as a result of any occurrence related to the "quick" screen test.

EXHIBIT N

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture

Agreement Number: **90009220.SAMPLE2**

QUALITY REQUIREMENTS

This Subcontract shall include, but is not limited to, the items listed below which supplements the articles of the Subcontract. In the event of a conflict between any provision of the Subcontract and any provision of this Exhibit, the more stringent requirement shall apply.

GENERAL

1. Subcontractor shall comply with the quality requirements of the Contract, Technical Provisions, Design Documents, and related standards, specifications and guidelines.
2. Each Subcontractor is responsible for monitoring the quality of its work. The acceptable level of quality is established by the Contract Documents and the Project's Quality Management Plan. Compliance with quality requirements will be determined by Contractor and the Designer of Record. Subcontractor shall submit for Contractor's approval, a Quality Control Program for its work within thirty (30) days of the Subcontract award or if sooner, prior to commencement of work or purchasing of materials and equipment. Subcontractor's Program shall be at least as stringent as the Contractor Program and shall at a minimum include the following:
 - a. Project organization
 - b. Identify competent inspectors
 - c. Procedure for checking and verifying receipt of materials and equipment
 - d. Procedure for monitoring work compliance with approved construction documents
 - e. Testing and inspections procedures
 - f. Documentation process
3. The Subcontractor will not be relieved of any obligation under the quality control provisions of the Contract because of Quality Control Programs administered by Contractor. Thus, Subcontractor's Quality Programs will be in addition to any Quality Control Programs put into effect and monitored by Contractor.

COORDINATION

4. Subcontractor shall designate an onsite Quality Control Representative who shall be onsite full-time and be the primary liaison with Contractor's Construction Quality Assurance Manager for all issues related to quality. Said person may be a working foreman; however, shall have a minimum of five (5) years relevant construction experience, must be available to regularly attend quality control meetings, timely resolve quality control issues, and communicate effectively both verbally and in writing.
5. Subcontractor will prepare Construction Work Plans per the Contractor Quality Management Plan and submit to the Construction Quality Assurance Manager for review. Construction Work Plans shall include:
 - a. Description of the work
 - b. Sequence of the work
 - c. Safety and environmental concerns regarding the work
 - d. All materials required for the work
 - e. Individuals responsible for supervision of the work
 - f. Planned start date of the work, and anticipated duration of the work

EXHIBIT N

Project: **LAWA ATMP ROADWAY IMPROVEMENTS**

Project Number: 90009220

Subcontractor: **FOR EXAMPLE USE ONLY**

Skanska-Flatiron a Joint Venture
Agreement Number: **90009220.SAMPLE2**

- g. Prerequisite activities required
 - h. Submittals required
 - i. Inspection and/or testing requirements
6. Subcontractor shall participate in Pre-Activity (Pre-Construction) Meetings at a location selected by Contractor for each definable feature of its work. These meetings' agendas will include review of the prepared Construction Work Plans as well as the approved construction drawings and specifications.

INSPECTION AND TESTING

7. Subcontractor shall review the critical dimensions and elevations of existing work and shall otherwise verify the conformity of existing work to the Contract Documents and to its suitability for receiving the work of this Subcontract. Subcontractor shall promptly submit a written statement to Contractor noting any discrepancies or unacceptable conditions as they relate to its work. Subcontractor shall not attach to or cover any work that is not properly installed.
8. Subcontractor is responsible for conformance of its Work with the Contract Documents, and shall not cover up or continue to work in areas lacking testing and inspection. Subcontractor shall promptly report any deficiencies to Contractor's Quality Control Manager.
9. Subcontractor shall coordinate its work with Contractor and all testing agencies and will assist with the procurement of required samples, and the inspections of its work. This includes ladders, hoists, scaffold, etc., as required to provide access to the work.
10. Subcontractor will provide Quality Control Testing as required by the Caltrans Standard Specifications pertaining to the scope of work provided by the Subcontractor.

DOCUMENTATION

11. Subcontractor shall complete Contractor's Daily Quality Control Reports and submit these reports to the Contractor's Construction Quality Assurance Manager by 10:00 AM of the next business day.
12. Subcontractor shall provide testing reports for any QC Testing performed to the Construction Quality Assurance Manager.
13. Subcontractor shall provide notice of all permanent materials to be used to the Construction Quality Assurance Manager. Notice shall be provided utilizing the Caltrans CEM-3101DB form. Any product data or backup documentation requested by the Construction Quality Assurance Manager shall be provided.
14. Subcontractor shall provide material documentation (Bill of Lading, Certificate of Compliance, Mill Test Reports, etc.) for all permanent materials that are to be incorporated into the work. All documentation is to be delivered to the Construction Quality Assurance Manager.
15. At the completion of the work of this Subcontract, Subcontractor shall certify that the work has been installed in accordance with the Contract Requirements and provide supporting as-built drawings and requested documentation.

Appendix 25 – Onboarding and Training/Familiarization Plan

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