

APPENDIX B

Air Quality and Greenhouse Gas Technical Study

Wilshire/Highland Project

Air Quality and Greenhouse Gas Emissions Technical Report

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1.0 INTRODUCTION

This Air Quality and Greenhouse Gas Technical Study describes the potential air quality and greenhouse gas (GHG) of the proposed mixed-use development at 5001 Wilshire Boulevard¹ in the City of Los Angeles (City) and evaluates the potential air quality and GHG impacts of the proposed project. This report has been prepared by Impact Sciences, Inc. to support the environmental documentation being prepared pursuant to the California Environmental Quality Act (CEQA). This analysis considers both the temporary air quality and GHG impacts that would result from project construction and the long-term impacts associated with the operation of the project.

1.1 PROJECT LOCATION

The Project Site is located at the intersection of Wilshire Boulevard and South Highland Avenue within the Wilshire Community Plan Area of the City of Los Angeles. The site is bounded by single family homes to the north, Wilshire Boulevard to the south, South Citrus Avenue to the west, and South Highland Avenue to the east. The nearest transit facility to the proposed project site is the Wilshire/Highland Metro 20 bus stop located adjacent to the project site on Wilshire Boulevard. The future Wilshire/La Brea station is located 0.25 miles west of the project site and is part of the first section of the Purple Line Extension that will extend the existing purple line from Koreatown to Miracle Mile. The Wilshire/La Brea transit station and first section of the Purple Line Extension are expected to begin operations in 2023.²

The project site is approximately 1.685 acres and is currently improved with a two-story multi-tenant commercial building with associated surface parking lots, see **Figure 1, Proposed Project Site**.

1.2 PROJECT DESCRIPTION

The proposed project will replace the existing multi-tenant commercial building on the site in order to construct mixed-use development with 242 residential units and approximately 10,900 square feet of commercial space in an eight-story building. The proposed project will also convert Carling Way and a surface parking lot on the northern end of the project site to publicly accessible green space. The site is zoned for Commercial use (the southern portion is zoned C4-2D; the northern portion is zoned C2-1) with a land use designation of Community Commercial. The project proposes to vacate and merge Carling Way

¹ Addresses associated with the proposed project site include 5001 Wilshire Boulevard; 671-677 S. Highland Avenue; and 668 S. Citrus Avenue.

² Los Angeles Metro. 2019. *Purple Line Extension – Section 1*. Available online at: <https://www.metro.net/projects/purple-section1/>.

that runs through the site and proposes to develop open, green space on the northern portion of the site. Parking for the proposed project will include 354 spaces in three subterranean levels.

The project site is surrounded by commercial space to the east, south, and west of the site and single-family residences to the north.

Figure 1 – Proposed Project Site



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, AeroGRID, IGN, and the GIS User Community

SOURCE: Esri, 2021

FIGURE 1

**IMPACT
SCIENCES**
1345.001-03/2021

Proposed Project Site

2.0 AIR QUALITY

2.1 AIR QUALITY SETTING

South Coast Air Basin

South Coast Air Basin Characteristics

The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. The City of Los Angeles is located within the South Coast Air Basin (SCAB), which incorporates approximately 12,000 square miles consisting of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Geronio Pass area in Riverside County. SCAB is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest and high mountains around the rest of its perimeters.

Temperature and Precipitation

The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. It is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. This usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. The annual average temperature varies little throughout the SCAB region, ranging from the low 60s to the high 80s, measures in degrees Fahrenheit (F°). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas.

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rains fall between November and April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains.

Humidity

Although the SCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent, and low clouds, often referred to as high fog, are a characteristic climate feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SCAB.

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is higher during the dry summer months than during the rainy winter.

Between periods of wind, air stagnation may occur in both the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall, surface high-pressure systems over the SCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the diffusion of pollutants by inhibiting the eastward transport of pollutants. Air quality in the SCAB generally ranges from fair to poor and is similar to air quality in most of coastal Southern California. The entire region experiences heavy concentration of air pollutants during prolonged periods of stable atmospheric conditions.

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two similarly distinct types of temperature inversions control the vertical depth through which pollutants are mixed. These inversions are the marine/subsidence inversion and the radiation inversion. The height of the base of the inversion at any given time is known as the “mixing height.” The combination of winds and inversions is a critical determinant leading to highly degraded air quality in the summer and generally good air quality in the winter in Los Angeles.

Air Pollutants of Concern

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards for outdoor concentrations. The federal and state standards have been set at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons such as children, pregnant women, and the elderly, from illness or discomfort. Criteria air pollutants include ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), particulate matter 2.5 microns or less in diameter (PM_{2.5}), particulate matter ten microns or less in diameter (PM₁₀), and lead (Pb). Note that reactive organic gases (ROGs), which are also known as reactive organic compounds (ROCs) or volatile organic compounds (VOCs), and nitrogen oxide (NO_x) are not classified as criteria pollutants. However, ROGs and NO_x are widely emitted from land development projects and participate in photochemical reactions in the

atmosphere to form O₃; therefore, NO_x and ROG_s are relevant to the proposed project and are of concern in the air basin and are listed below along with the criteria pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in **Table 1, Criteria Pollutants Summary of Common Sources and Effects**.

Table 1
Criteria Pollutants Summary of Common Sources and Effects

Pollutant	Major Man-Made Sources	Human Health & Welfare Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuels is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO ₂)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O ₃)	Formed by a chemical reaction between volatile organic compounds (VOC) and nitrous oxides (NO _x) in the presence of sunlight. VOCs are also commonly referred to as reactive organic gases (ROGs). Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles, and dyes.
Particulate Matter (PM ₁₀ & PM _{2.5})	Produced by power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others.	Increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO ₂)	A colorless, nonflammable gas formed when fuel containing sulfur is burned; when gasoline is extracted from ore. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant; aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron, and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.

Source: CAPCOA, Health Effects. Available: <http://www.capcoa.org/health-effects/>

2.2 AMBIENT AIR QUALITY

Criteria Air Pollutant Monitoring Data

Ambient air quality in Los Angeles can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. Existing levels of ambient air quality and historical trends and

projections in the vicinity of Los Angeles are documented by measurements made by the South Coast Air Quality Management District (SCAQMD), the air pollution regulatory agency in the SCAB regions maintains air quality monitoring stations which process ambient air quality measurements.

The purpose of the monitoring station is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS). Ozone and particulate matter (PM10 and PM2.5) are pollutants of particular concern in the SCAB. The monitoring station located closest to the proposed project site and most representative of air quality near the proposed project site is the Los Angeles – North Main Street station, located at 1630 North Main Street approximately 6.44 miles east of the project site. Ambient emission concentrations vary due to localized variations in emissions sources and climate and should be considered “generally” representative of ambient concentrations near the project site. The Los Angeles – North Main Street station monitors O₃, PM2.5, PM10, and NO₂, see **Table 2, Los Angeles – North Main Street Air Monitoring Station Ambient Pollutant Concentrations**.

Table 2
Los Angeles – North Main Street Air Monitoring Station Ambient Pollutant Concentrations

Pollutant	Standards ¹	Year		
		2017	2018	2019
OZONE (O₃)				
Maximum 1-hour concentration monitored (ppm)		0.116	0.098	0.085
Maximum 8-hour concentration monitored (ppm)		0.086	0.073	0.080
Number of days exceeding state 1-hour standard	0.09 ppm	6	2	0
Number of days exceeding federal/state 8-hour standard	0.070 ppm	14	4	2
NITROGEN DIOXIDE (NO₂)				
Maximum 1-hour concentration monitored (ppm)		0.081	0.070	0.069
Annual average concentration monitored (ppm)		0.021	0.018	0.018
Number of days exceeding state 1-hour standard	0.18 ppm	0	0	0
RESPIRABLE PARTICULATE MATTER (PM₁₀)				
Maximum 24-hour concentration monitored (µg/m ³)		64.6	68.2	62.0
Annual average concentration monitored (µg/m ³)		25.7	30.2	25.5
Number of samples exceeding state standard	50 µg/m ³	40	31	3
Number of samples exceeding federal standard	150 µg/m ³	0	0	0
FINE PARTICULATE MATTER (PM_{2.5})				
Maximum 24-hour concentration monitored (µg/m ³)		54.9	61.4	43.5
Annual average concentration monitored (µg/m ³)		12.0	12.8	10.8
Number of samples exceeding federal standard	35 µg/m ³	6	6	1

Source: California Air Resources Board, “Air Quality Data Statistics,” <http://www.arb.ca.gov/adam/>. 2020.

SCAQMD. 2019. Air Quality South Coast Air Quality Management District, <http://www.aqmd.gov/docs/default-source/air-quality/historical-data-by-year/2019-air-quality-data-tables.pdf?sfvrsn=8>. 2020.

NA = not available

¹ Parts by volume per million of air (ppm), micrograms per cubic meter of air (µg/m³), or annual arithmetic mean (aam).

Pollutant	Standards ¹	Year		
		2017	2018	2019

² The 8-hour federal O₃ standard was revised from 0.075 ppm to 0.070 ppm in 2015. The statistics shown are based on the 2015 standard of 0.070 ppm.

The attainment status for the SCAB region is included in **Table 3, Attainment Status of Criteria Pollutants in the South Coast Air Basin**. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The SCAB region is designated as a nonattainment area for federal ozone, PM_{2.5}, and lead standards and are designated as nonattainment for state ozone, PM₁₀, and PM_{2.5} standards.

Table 3
Attainment Status of the South Coast Air Basin

Pollutant	State	Federal
Ozone (O ₃)	Non-Attainment	Non-Attainment
Particulate Matter (PM ₁₀)	Non-Attainment	Attainment
Particulate Matter (PM _{2.5})	Non-Attainment	Non-Attainment
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO ₂)	Attainment	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Lead	Attainment	Non-Attainment (Partial) ¹

Source: SCAQMD. 2016. *National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin*. [naaqs-caaqs-feb2016.pdf](#), accessed March 2021.

¹ The Los Angeles County portion of the Basin is designated as a non-attainment area for the federal lead standard on the basis of source-specific monitoring at two locations as determined by U.S. EPA using 2007-2009 data. However, all stations in the Basin, including the near-source monitoring in Los Angeles County, have remained below the lead NAAQS for the 2012 through 2015 period. The SCAQMD will request that the U.S. EPA re-designate the Los Angeles County portion of the Basin as attainment for lead.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes, such as petroleum refining and chrome-plating operations; commercial operations, such as gasoline stations and dry cleaners; and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

To date, CARB has designated 244 compounds as TACs. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to a relatively few compounds.³

CARB identified diesel particulate matter (DPM) as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particulates and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiovascular diseases.⁴

Residential areas are considered sensitive receptors to air pollutions because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any

³ California Air Resources Board. *CARB Identified Toxic Air Contaminants*. Available online at: <https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants>.

⁴ California Air Resources Board. *Sensitive Receptor Assessment*. Available online at: <https://ww2.arb.ca.gov/capp-resource-center/community-assessment/sensitive-receptor-assessment>.

pollutants present. Children are considered more susceptible to health effects of air pollution due to their immature immune systems and developing organs.⁵ As such, schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation.

Existing Health Risk

The Multiple Air Toxics Exposure Study IV (MATES IV) is a monitoring and evaluation study conducted by the SCAQMD in SCAB. The study is a follow up to previous air toxics studies within SCAB. The MATES IV study focuses on the carcinogenic risk from exposure to air toxics but does not estimate mortality or other health effects from particulate exposures. Applying OEHHA's most recent health risk methodology, the MATES IV study determined that the estimated population weighted risk is 897 per million and concluded that air toxics within the region had declined from previous studies.⁶ Diesel particulate, which has substantially decreased from previous MATES studies, continues to be the dominating pollutant of concern that is driving up the background cancer risk.

According to the SCAQMD, the background cancer risk near the project site is approximately 1,145 in one million, see **Figure 2, Background Cancer Risk**.

2.3 EXISTING LAND USE

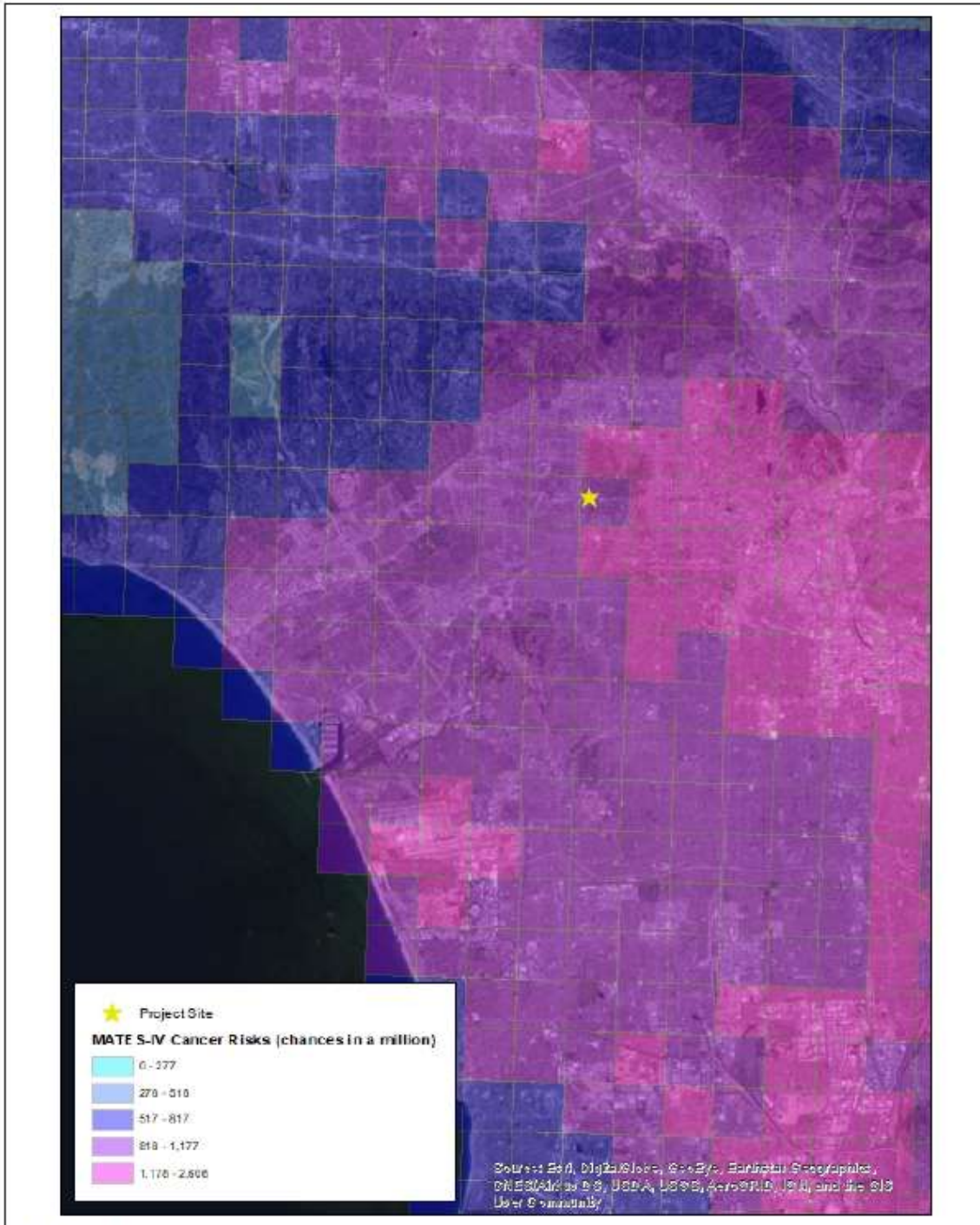
The existing project site is developed with a two-story multi-tenant commercial retail building with fast-food restaurants, personal and medical care services, and dry cleaners. Land uses at this site are associated with air pollutant and odor emissions. Specifically, the dry-cleaning facility releases emissions during the cleaning, drying, stain removal, and finishing. The main source of air toxics from dry cleaners is the solvent used in the cleaning process.⁷ Furthermore, these commercial land uses generate vehicle trips from customers and workers as well as diesel trucks trips from vendor deliveries. As a result, the existing project site generate criteria air pollutants from operation. These emissions are quantified and evaluated in the discussion below, see **Impact 2**.

⁵ Office of Environmental Health Hazard Assessment and The American Lung Association of California. *Air Pollution and Children's Health*. Available online at: <https://oehha.ca.gov/media/downloads/faqs/kidsair4-02.pdf>.

⁶ South Coast Air Quality Management District. 2015. *Final Report Multiple Exposure Study in the South Coast Air Basin*. Available online at: <https://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf?sfvrsn=7>.

⁷ U.S. Environmental Protection Agency. 2005. *Reducing Air Pollution from: Dry Cleaning Operations*. Available online at: https://www.epa.gov/sites/production/files/2017-06/documents/drycleaners_comm_info.pdf.

Figure 2 Background Cancer Risk



SOURCE: SCAQMD, 2015

FIGURE 2



Background Cancer Risk

2.4 Regulatory Framework

Federal

Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the U.S. Environmental Protection Agency (EPA) to establish NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants. On April 2, 2007, the Supreme Court found that carbon dioxide is an air pollutant covered by the CAA; however, no NAAQS have been established for carbon dioxide.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those “sensitive receptors” most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The EPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designations. **Table 3** lists the federal attainment status of the SCAB for the criteria pollutants.

National Emissions Standards for Hazardous Air Pollutants Program

Under federal law, 187 substances are currently listed as hazardous air pollutants (HAPs). Major sources of specific HAPs are subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAPS) program. The EPA is establishing regulatory schemes for specific source categories and requires implementation of the Maximum Achievable Control Technologies (MACT) for major sources of HAPs in each source category. State law has established the framework for California’s TAC identification and control program, which is generally more stringent than the federal program and is aimed at HAPs that are a problem in California. The state has formally identified 244 substances as TACs and is adopting appropriate control measures for each. Once adopted at the state level, each air district will be required to adopt a measure that is equally or more stringent.

National Ambient Air Quality Standards

The federal CAA required the U.S. EPA to establish NAAQS. The NAAQS set primary standards and secondary standards for specific air pollutants. Primary standards define limits for the intention of protecting public health, which include sensitive populations such as asthmatics, children, and the elderly. Secondary Standards define limits to protect public welfare to include protection against decreased visibility, damage to animals, crops, vegetation, and buildings. A summary of the federal ambient air quality standards is shown in **Table 4, National Ambient Air Quality Standards**.

Table 4
National Ambient Air Quality Standards

Pollutant		Primary/Secondary	Averaging Time	Level
Carbon Monoxide		Primary	8 hours	9 ppm
			1 hour	35 ppm
Lead		Primary and secondary	Rolling 3-month average	0.15 µg/m ³
Nitrogen dioxide		Primary	1 hour	100 ppb
		Primary and secondary	Annual	0.053 ppm
Ozone		Primary and secondary	8 hours	0.070 ppm
Particulate Matter	PM2.5	Primary	Annual	12 µg/m ³
		Secondary	Annual	15 µg/m ³
		Primary and secondary	24 hours	35 µg/m ³
	PM10	Primary and secondary	24 hours	150 µg/m ³
Sulfur dioxide		Primary	1 hour	75 ppb
		Secondary	3 hours	0.5 ppm

Source: California Air Resources Board. May 2016. *Ambient Air Quality Standards*. Available online at: <https://www.arb.ca.gov/research/aaqs/aaqs2.pdf>, accessed January 12, 2021.

State

California Clean Air Act of 1988

The California CAA of 1988 (CCAA) allows states to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (Cal EPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. The CCAA, amended in 1992, requires all air quality management districts (AQMDs) in the state to achieve and maintain the CAAQS. The CAAQS are generally stricter than national standards for the same pollutants and has also established state standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles, for which there are no national standards. CARB also

conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

California Ambient Air Quality Standards

The federal CAA permits states to adopt additional or more protective air quality standards if needed. California has set standards for certain pollutants, such as particulate matter and ozone, which are more protective of public health than respective federal standards. California has also set standards for some pollutants that are not addressed by federal standards. The state standards for ambient air quality are summarized in **Table 5, California Ambient Air Quality Standards**.

Table 5
California Ambient Air Quality Standards

Pollutant		Averaging Time	Level
Carbon monoxide		8 hours	9 ppm
		1 hour	20 ppm
Lead		30-day average	1.5 µg/m ³
Nitrogen dioxide		1 hour	0.180 ppm
		Annual	0.030 ppm
Ozone		8 hours	0.070 ppm
		1 hour	0.09 ppm
Particulate matter	PM2.5	Annual	12 µg/m ³
	PM10	24 hours	50 µg/m ³
		Annual	20 µg/m ³
Sulfur dioxide		1 hour	0.25 ppm
		24 hours	0.04 ppm
Sulfates		24 hours	25 µg/m ³
Hydrogen sulfide		1 hour	0.03 ppm
Vinyl chloride		24 hours	0.01 ppm

Source: California Air Resources Board. May 2016. *Ambient Air Quality Standards*. Available online at: <https://www.arb.ca.gov/research/aqs/aaqs2.pdf>, accessed January 12, 2021.

California State Implementation Plan

The federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas

violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The EPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the EPA for approval and publication in the Federal Register. The 2016 Air Quality Management Plan (2016 AQMP) is the SIP for SCAB. The 2016 AQMP is a regional blueprint for achieving air quality standards and healthful air in the SCAB and those portions of the Salton Sea Air Basin (SSAB) that are under the SCAQMD's jurisdictions. The 2016 AQMP represents a new approach, focusing on available, proven, and cost effective alternatives to traditional strategies, while seeking to achieve multiple goals in partnerships with other entities promoting reductions in greenhouse gases and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The most effective way to reduce air pollution impacts is to reduce emissions from mobile sources. The AQMP relies on regional and multi-level partnerships of governmental agencies at the federal, state, regional, and local level. Those agencies (EPA, CARB, local governments, Southern California Association of Governments [SCAG] and the SCAQMD) are the primary agencies that implement the AQMP programs. The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including SCAG's 2016-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. The 2016 AQMP includes integrated strategies and measures to meet the NAAQS.

On September 3, 2020, SCAG's Regional Council unanimously voted to approve and fully adopt Connect SoCal (2020-2045 RTP/SCS). However, the forecasts and measures in the plan have not been incorporated into any applicable air quality plan for the region.⁸

California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588)

The California Air Toxics Program is supplemented by the Air Toxics "Hot Spots" program, which became law (AB 2588, Statutes of 1987) in 1987. In 1992, the AB 2588 program was amended by Senate Bill 1731 to require facilities that pose a significant health risk to the community to perform a risk reduction audit and reduce their emissions through implementation of a risk management plan. Under this program, which is required under the Air Toxics "Hot Spots" Information and Assessment Act (Section 44363 of the California

⁸ Southern California Association of Governments. *Adopted Final Connect SoCal (2020-2045 RTP/SCS)*. Available online at: <https://scag.ca.gov/read-plan-adopted-final-plan>.

Health and Safety Code), facilities are required to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks when present.

Typically, land development projects generate diesel emissions from construction vehicles during the construction phase, as well as some diesel emissions from small trucks during the operational phase. Diesel exhaust is mainly composed of particulate matter and gases, which contain potential cancer-causing substances. Emissions from diesel engines currently include over 40 substances that are listed by EPA as hazardous air pollutants and by CARB as TACs. On August 27, 1998, CARB identified particulate matter in diesel exhaust as a TAC, based on data linking diesel particulate emissions to increased risks of lung cancer and respiratory disease.⁹

In March 2015, the OEHHA adopted “The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments” in accordance with the Health and Safety Code, Section 44300. The Final Guidance Manual incorporates the scientific basis from three earlier developed Technical Support Documents to assess risk from exposure to facility emissions. The 2015 OEHHA Final Guidance has key changes including greater age sensitivity in particular for children, decreased exposure durations, and higher breathing rate profiles. Because cancer risk could be up to three times greater using this new guidance, it may result in greater mitigation requirements, more agency backlog, and increased difficulty in getting air permits. Regardless of the change in calculation methodology, actual emissions and cancer risk within South Coast Air Basin has declined by more than 50 percent since 2005.

The CARB provides a computer program, the Hot Spots Analysis and Reporting Program (HARP), to assist in a coherent and consistent preparation of an HRA. HARP2, an update to HARP, was released in March 2015. HARP2 has a more refined risk characterization in HRA and CEQA documents and incorporates the 2015 OEHHA Final Guidance.

Regional

South Coast Air Quality Management District

The SCAQMD is the air pollution control district for Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The agency’s primary responsibility is ensuring that the SCAB region meets attainment for the federal and state standards. The SCAQMD is responsible for preparing an air quality management plan in order to meet federal attainment status. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing

⁹ Diesel exhaust is included within pollutants subject to the hotspot program. Please refer to OEHHA’s Air Toxics Hot Spot Program Risk Assessment Guidelines. <https://oehha.ca.gov/air/crnrr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>.

permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, and conducting public education campaigns, as well as many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction.

SCAQMD Rules and Regulations

The following is a list of noteworthy SCAQMD rules that are required of construction activities associated with the proposed project:

- **Rule 402 (Nuisance)** – This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

- **Rule 403 (Fugitive Dust)** – This rule requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. This rule is intended to reduce PM10 emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM10 suppression techniques are summarized below.
 - Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
 - All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
 - All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
 - The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
 - Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the work day to remove soil tracked onto the paved surface.

- **Rule 1113 (Architectural Coatings)** – This rule requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories.
- **Rule 445 (Wood-Burning Devices)** – The purpose of this rule is to reduce the emission of particulate matter from wood-burning devices and establish contingency measures for applicable ozone standards for the reduction of volatile organic compounds.

The rule requires that any new residential or commercial development that begins construction on or after March 9, 2009 only install gaseous-fueled fireplaces and stoves.¹⁰

Local

Air Quality Element of the Los Angeles General Plan

The *Air Quality Element of the City of Los Angeles General Plan* (Air Quality Element) was adopted on November 24, 1992, and sets forth the goals, objectives and policies that guide the City in the implementation of its air quality improvement programs and strategies.¹¹ The Air Quality Element acknowledges that numerous efforts are underway at the regional, county and city levels addressing clean air concerns and that coordination of these various efforts and the involvement of the area’s residents are crucial to the achievement of State and Federal air quality standards.

Relevant to the proposed project, the Air Quality Element establishes the following goals and policies aimed to reduce air quality emissions across the City of Los Angeles:

Goal 1. Good air quality and mobility in an environment of continued population growth and healthy economic structure.

Objective 1.1. It is the objective of the City of Los Angeles to reduce air pollutants consistent with the Regional Air Quality Management Plan (AQMP), increase traffic mobility, and sustain economic growth citywide.

¹⁰ South Coast Air Quality Management District. 2019. *Rule 445 – Wood Burning Devices Local Government, Builder, Contractor, Architect Answers to Frequently Asked Questions (FAQs)*. Available online at: <http://www.aqmd.gov/docs/default-source/rule-book/support-documents/rule-445/detailed-rule-445-information.pdf>.

¹¹ City of Los Angeles Planning Department. 1992. *Air Quality Element*. Available online at: https://planning.lacity.org/odocument/0ff9a9b0-0adf-49b4-8e07-0c16fee70bc/Air_Quality_Element.pdf.

Policy 1.1.1. Encourage demonstration projects which involve creative and innovative uses of market incentive mechanisms to achieve air quality objectives.

Objective 1.3. It is the objective of the City of Los Angeles to reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.

Policy 1.3.1. Minimize particulate emissions from construction sites.

Policy 1.3.2. Minimize particulate emissions from unpaved roads and parking lots which are associated with vehicular traffic.

Goal 2. Less reliance on single-occupant vehicles with fewer commute and non-work trips.

Objective 2.2. It is the objective of the City of Los Angeles to increase vehicle occupancy for non-work trips by creating disincentives for single passenger vehicles, and incentives for high occupancy vehicles.

Policy 2.2.1. Discourage single-occupant vehicle use through a variety of measures such as market incentive strategies, mode-shift incentives, trip reduction plans and ridesharing subsidies.

Goal 3. Efficient management of transportation facilities and system infrastructure using cost effective system management and innovative demand management techniques.

Objective 3.2. It is the objective of the City of Los Angeles to reduce vehicular traffic during peak periods.

Policy 3.2.1. Manage traffic congestion during peak periods.

Goal 4. Minimal impact of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.

Objective 4.1. It is the objective of the City of Los Angeles to include the regional attainment of ambient air quality standards as a primary consideration in land use planning.

Policy 4.1.1. Coordinate with all appropriate regional agencies in the implementation of strategies for the integration of land use, transportation, and air quality policies.

Policy 4.1.2. Ensure that project level review and approval of land use development remain at the local level.

Objective 4.2. It is the objective of the City of Los Angeles to reduce vehicle trips and vehicle miles traveled associated with land use patterns.

Policy 4.2.1. Revise the City’s General Plan/Community Plans to achieve a more compact, efficient urban form and to promote more transit-oriented development and mixed-use development.

Policy 4.2.2. Improve accessibility for the City’s residents to places of employment, shopping centers, and other establishments.

Policy 4.2.3 Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.

Policy 4.2.4. Require that air quality impacts to be a consideration in the review and approval of all discretionary projects.

Policy 4.2.5. Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects.

Wilshire Community Plan

The Wilshire Community Plan was updated in 2001 and includes about 8,954 acres of the Mid-City section of Los Angeles. The eastern edge of the Community Plan Area is about 6 miles west of downtown Los Angeles, while the western edge abuts the City of Beverly Hills. The Wilshire Community Plan Area has a pattern of low to medium density residential uses interspersed with areas of higher density residential uses. Long narrow corridors of commercial activity can be found along major streets including Wilshire, Pico, La Cienega, Western, and Vermont. The plan area east of Western Avenue contains large concentrations of higher-density residential neighborhoods surrounding the regional commercial area known as Wilshire Center.¹² The Wilshire Community Plan sets forth planning goals and objectives to maintain the community’s distinctive character, the goals and objectives relevant to this proposed project include:

Goal 1. Provide a safe, secure, and high quality residential environment for all economic, age, and ethnic segments of the Wilshire Community.

¹² City of Los Angeles. 2001. *Wilshire Community Plan*. Available online at: https://planning.lacity.org/odocument/3333424a-21b9-4f7b-86db-064926b9dcb9/Wilshire_Community_Plan.pdf.

Objective 1-1. Provide for the preservation of existing quality housing, and for the development of new housing to meet the diverse economic and physical needs of the existing residents and expected new residents in the Wilshire Community Plan Area to the year 2010.

Policy 1-1.3. Provide for adequate Multiple Family residential development.

Policy 1-1.4. Provide for housing along mixed-use boulevards where appropriate.

Objective 1-2. Reduce vehicular trips and congestion by developing new housing in close proximity to regional and community commercial centers, subway stations and existing bus route stops.

Policy 1-2.1. Encourage higher density residential uses near major public transportation centers.

Objective 1-4. Provide affordable housing and increased accessibility to more population segments, especially students, the handicapped and senior citizens.

Policy 1-4.1. Promote greater individual choice in type, quality, price and location of housing.

Policy 1-4.2. Ensure that new housing opportunities minimize displacement of residents.

Policy 1-4.3. Encourage multiple family residential and mixed-use development in commercial zones.

2.5 Thresholds and Methodology

Thresholds of Significance

The impact analysis provided below is based on the application of the following California Environmental Quality Act (CEQA) Guidelines Appendix G, which indicates that a project would have a significant impact on air quality if it would:

1. Conflict with or obstruct implementation of any applicable air quality plan.
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.
3. Expose sensitive receptors to substantial pollutant concentrations.

4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The significance criteria established by the applicable air quality management or air pollution control district (SCAQMD) may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if the proposed project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SCAQMD has established thresholds of significance for air quality for construction and operational activities of land use development projects, shown in **Table 6 – South Coast AQMD Regional Significance Thresholds**.

Table 6
South Coast AQMD Air Quality Significance Thresholds

Mass Daily Thresholds ^a		
Pollutant	Construction ^b	Operation ^c
NO _x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM ₁₀	150 lbs/day	150 lbs/day
PM _{2.5}	55 lbs/day	55 lbs/day
SO _x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to South Coast AQMD Rule 402	
GHG	10,000 MT/yr CO ₂ eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants ^d		
NO₂	South coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards:	
1-hour average	0.18 ppm (state)	
annual arithmetic mean	0.03 ppm (state) and 0.0534 ppm (federal)	
PM₁₀	10.4 µg/m ³ (construction) ^e & 2.5 µg/m ³ (operation)	
24-hour average	1.0 µg/m ³	
PM_{2.5}	10.4 µg/m ³ (construction) ^e & 2.5 µg/m ³ (operation)	
24-hour average		
SO₂	0.25 ppm (state) & 0.075 ppm (federal - 99th percentile)	
1-hour average	0.04 ppm (state)	
24-hour average		
Sulfate	25 µg/m ³ (state)	
24-hour average		

CO	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards:
1-hour average	20 ppm (state) and 35 ppm (federal)
8-hour average	9.0 ppm (state/federal)
Lead	
30-day Average	1.5 µg/m ³ (state)
Rolling 3-month average	0.15 µg/m ³ (federal)

^a Source: South Coast AQMD CEQA Handbook (South Coast AQMD, 1993)

^b Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).

^c For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.

^d Ambient air quality thresholds for criteria pollutants based on South Coast AQMD Rule 1303, Table A-2 unless otherwise stated.

^e Ambient air quality threshold based on South Coast AQMD Rule 403.

CO Hotspot Analysis

In addition to the daily thresholds listed above, the proposed project area would also be subject to the ambient air quality standards, through an analysis of localized CO impacts. The California 1-hour and 8-hour CO standards are:

- 1-hour = 20 parts per million
- 8-hour = 9 parts per million

The significance of localized impacts depends on whether ambient CO levels in the vicinity of the project site are above state and federal CO standards. Carbon monoxide concentrations in Los Angeles no longer exceed either the CAAQS or the NAAQS criteria. Additionally, the SCAB region is designated as attainment under the 1-hour and 8-hour standards (see **Table 3**).

Localized Significance Thresholds

In addition to regional emissions and the CO hotspot analysis, the SCAQMD has developed a set of mass emissions rate look-up tables that can be used to evaluate localized impacts that may result from construction and operational-period emissions called localized significance thresholds (LSTs). If the on-site emissions from proposed construction activities are below the emission levels found in the LST mass rate look-up tables for the project site receptor area (SRA), then emissions would not have the potential to cause a significant localized air quality impact. When quantifying mass emissions for LST analysis, only emissions that occur on site are considered. Consistent with SCAQMD LST guidance, emissions from offsite delivery hauling trucks, or employee trips are not considered in the evaluation of localized impacts (SCAQMD 2008).

The proposed project site lies within SCAQMD SRA 1 and the proposed project site is approximately 1.69-acres. Therefore, **Table 7, Local Significance Thresholds – Pounds per Day** shows the LST screening threshold for a 2-acre project site in SRA 1 with sensitive receptors located approximately 25 meters of the proposed project site.

Table 7
Local Significance Thresholds – Pounds per Day

Phase	Nitrogen Oxide (NO _x)	Carbon Monoxide (CO)	Coarse Particulate Matter (PM10)	Fine Particulate Matter (PM2.5)
Construction	108	1,048	8	5
Operation	108	1,048	2	2

Source:

SCAQMD. 2009. *Appendix C Mass Rate Look Up Table*. Available at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2>.

Methodology

Air quality impacts were evaluated in accordance with the methodologies recommended by CARB and the SCAQMD. Where criteria air pollutant quantification was required, emissions modeled using the California Emissions Estimator Model version 2016.3.2 (CalEEMod). CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects.

2.6 Project Impacts

AQ Impact 1 **Would implementation of the proposed project conflict with or obstruct implementation of any applicable air quality plan? (*Less than Significant*).**

As part of its enforcement responsibilities, the EPA requires each state with nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the CCAA requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

SCAQMD drafted the 2016 AQMP.¹³ As described above, the 2016 AQMP was developed in effort with CARB, SCAG, and the U.S. EPA to establish a program of rules and regulations to reduce air pollutant emissions to achieves CAAQS and NAAQS. The plan's pollutant control strategies are based on SCAG's 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). While SCAG adopted the updated 2020-2045 RTP/SCS in September 2020, it has not been incorporated into an applicable air quality plan.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's 1993 CEQA Air Quality Handbook, and include the following:

- Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of an existing air quality violation, or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.
- Consistency Criterion No. 2: The proposed project will not exceed the assumptions in the AQMP or increments based on the years of the project build-out phase.

The violations to which Consistency Criterion No. 1 refers are the CAAQS and the NAAQS. As evaluated under Impacts 2 below, the project would not exceed the short-term construction standards or long-term operational standards and in so doing would not violate any air quality standards (see **Table 8** and **Table 9**). Thus, no significant impact is expected, and the proposed project would be consistent with first criterion.

Concerning Consistency Criterion No. 2, the 2016 AQMP contains air pollutant reduction strategies based on SCAG's growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. The proposed project would increase local population by 695 residents and will result in a net decrease of 68 employees.^{14, 15} The proposed project is

¹³ South Coast Air Quality Management District. 2016. *Air Quality Management Plan*. Available online at: <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf>.

¹⁴ Estimated population based on CalEEMod modeling, see Attachment A. Estimated employment numbers based on the Los Angeles Unified School District 2020 Developer Fee Justification Study for Neighborhood Commercial Center which estimates 2.71 employees per 1,000 square feet. The existing site generates approximately 98 employees (2.71 employees/1,000 square feet x 36,300 square feet) and the proposed project will generate approximately 30 employees (2.71 employees/1,000 square feet x 10,900 square feet). As a result, the proposed project will result in a net decrease in 68 employees.

¹⁵ Los Angeles Unified School District. 2020. 2020 Developer Fee Justification Study. Available online at: https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/921/LAUSD%20Dev%20Fee%20Study%202020_Final.pdf.

consistent with the land use designation and development density prepared in the City of Los Angeles' General Plan. Therefore, the proposed project would not exceed the population or job growth projections used by the SCAMQD to develop the 2016 AQMP. Thus, no significant impact would occur, as the proposed project is also consistent with the second criterion.

AQ Impact 2 **Would implementation of the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard? (*Less than Significant*).**

A project may have a significant impact if project-related emissions would result in a cumulatively considerable net increase for an criteria pollutant for which the region in nonattainment under applicable federal or state ambient air quality standards. The cumulative analysis of air quality impacts follows the SCAQMD's guidance such that construction or operational Project emissions will be considered cumulatively considerable if Project-specific emissions exceed an applicable SCAQMD recommended daily threshold.

Regional Construction Significance Analysis

Construction associated with the proposed project would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the proposed project area include ozone-precursor pollutants (i.e., ROG and NOx), PM10, and PM2.5. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Construction results in the temporary generation of emissions resulting from site grading and excavation, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water.

The duration of construction activities associated with the proposed project is estimated to last approximately 2.5 years, beginning in July 2022. Construction-generated emissions associated with the proposed project were calculated using the SCAQMD- and CARB-approved CalEEMod model. CalEEMod is designed to model construction and operational emissions for land use development projects. The model incorporates typical construction requirements such as construction equipment, demolition debris, and hauling trips. The assumptions used in the CalEEMod model, including construction equipment usage, the

demolition of approximately 12,936 tons of the existing structure and surface pavement, and grading quantity of approximately 65,095 cubic yards of soil export, were based on information provided by the project applicant. In addition, the project applicant provided estimates of the construction equipment expected to be used during each phase of project construction as well as the expected usage during that phase of construction.¹⁶ Predicted maximum daily construction-generated emissions for the proposed project are summarized in **Table 8, Construction-Related Criteria Pollutant and Precursor Emissions – Maximum Pounds per Day.**

During construction, the contractors are required to comply with SCAQMD Rule 402 (Nuisance) and Rule 403 (Fugitive Dust), among others, which assist in reducing short-term construction-related air pollutant emissions. Rule 402 prohibits emissions that would cause a public nuisance and Rule 403 requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. The proposed project would be subject to Rules 402, 403, and 113 described in the Regulatory Framework subsection above. As shown below, all criteria pollutant emissions would remain below their respective thresholds. Thus, the proposed project would not result in a cumulatively considerable net increase of any criteria air pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.

Table 8
Construction-Related Criteria Pollutant and Precursor Emissions – Maximum Pounds per Day

Construction Year	ROG	NOx	CO	SO2	PM10	PM2.5
2022	3.48	46.78	27.40	0.13	7.55	2.36
2023	1.83	12.57	16.93	0.05	3.38	1.16
2024	36.71	19.04	28.85	0.08	4.38	1.64
Regional Threshold	75	100	550	150	150	55
<i>Exceed?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: Impact Sciences, CalEEMod modeling, 2021. See Attachment A.

Note: Project emissions account for the reductions from SCAQMD Rule 403 (Fugitive Dust).

Regional Operational Significance Analysis

Proposed project-generated emissions would be associated with motor vehicle use, energy use, and area sources, such as the use of natural-gas-fired appliances, landscape maintenance equipment, consumer cleaning products, and architectural coatings associated with the operation of a 242-unit apartment building, 10,900 square feet of commercial space, and a 354-space subterranean parking garage. The

¹⁶ See Attachment A for project construction assumptions.

proposed project will also convert Carling Way and a surface parking lot on the northern end of the project site to publicly accessible open space. The proposed project will be replacing an existing two-story multi-tenant commercial structure and surface parking lots.¹⁷ The operational emissions were from the proposed project and existing project were calculated within CalEEMod and the net operational emissions were compared against SCAQMD regional thresholds to determine project significance.

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher emission rates used by CalEEMod. The earliest year the project could possibly be constructed and fully occupied would be 2025. Emissions associated with build-out later than 2025 would be lower, because newer vehicles have to meet increasingly more stringent emissions standards, while older, more polluting, vehicles are used less.

CalEEMod allows the user to enter specific vehicle trip generation rates. The Transportation Assessment Memorandum of Understanding (MOU) prepared by Los Angeles Department of Transportation estimates that the proposed project will generate 1,666 trips per day and the existing project site generates 1,370 trips per day. As a result, the project will result in a net increase of 296 trips per day.

Long-term operational emissions attributable to the proposed project are summarized in **Table 9, Long-Term Operational Emissions – Maximum Pounds per Day**.

Table 9
Long-Term Operational Emissions – Maximum Pounds per Day

Source	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
<i>Proposed Project Emissions</i>						
Area Source	6.54	3.66	21.52	0.02	0.39	0.39
Energy Use	0.07	0.57	0.24	0.004	0.05	0.05
Mobile Source	2.36	10.16	30.50	0.12	10.94	2.99
Total	8.96	14.39	52.26	0.15	11.38	3.42
<i>Existing Project Emissions</i>						
Area	1.06	>0.001	>0.001	0.00	>0.001	>0.001
Energy	0.002	0.02	0.013	>0.01	>0.01	>0.01
Mobile	2.12	9.16	22.59	0.07	5.60	1.54
Total	3.18	9.18	22.61	0.07	5.61	1.54
<i>Net Operational Emissions</i>	5.78	5.21	29.65	0.08	5.77	1.88

¹⁷ The size of the existing commercial building and estimated daily trip rate consistent with the Los Angeles Department of Transportation's Memorandum of Understanding.

Regional Threshold	55	55	550	150	150	55
Exceed?	No	No	No	No	No	No

Source: Impact Sciences, CalEEMod modeling, 2021. See Attachment A.

As shown in **Table 8** and **Table 9**, the proposed project’s construction and operational emissions would not exceed the SCAQMD’s thresholds for any criteria air pollutants. Therefore, regional construction and operation operational emissions would not result in a significant long-term regional air quality impact. Thus, the proposed project would not result in a cumulatively considerable net increase of any criteria air pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard. Therefore, regional construction and operation operational emissions would not result in a significant long-term regional air quality impact and would not result in a cumulative air quality impact.

Air Quality Health Impacts

On December 24, 2018, the California Supreme Court published its opinion on the *Sierra Club et al. v. County of Fresno et. Al.* (Case No. S219783) which determined that an environmental review must adequately analyze a project’s potential impacts and inform the public how its bare numbers translate to a potential adverse health impacts or explain how existing scientific constraints cannot translate the emissions numbers to the potential health impacts.

SCAB is in state non-attainment for PM2.5, PM10, and O₃ and federal non-attainment for PM2.5 and O₃. Therefore, an increase in emissions of particulate matter or ozone precursors (ROG and NO_x) has the potential to push the region further from reaching attainment status and, as a result, are the pollutants of greatest concern in the region. As noted in **Table 8** and **Table 9** above, the proposed project will emit criteria air pollutants during construction and operation. However, the proposed project will not exceed SCAQMD thresholds for ozone precursors (ROG and NO_x), PM2.5, PM10, or any other criteria air pollutants, and will not result in a cumulatively significant impact for which the region is in non-attainment. This discussion focuses on the health effects from the pollutants for which the region is in non-attainment and why it is not feasible to provide an analysis to relate the emissions of ozone precursors from an individual project to likely health consequences.

Exposure to particulate matter can affect both a person’s lungs and heart and has been linked to a variety of health problems including aggravated asthma, decreased lung function, and increased respiratory symptoms. DPM is a type of particulate that is emitted from diesel engines and is estimated to cause

approximately 70% of total known cancer risks related to air toxics in California.¹⁸ As discussed below, see **Impact 3**, the proposed project would not result in an increased health risk as a result from exposure to DPM or other TACs. Further, since the proposed project will not exceed SCAQMD regional thresholds for particulate matter, the project will not result in a cumulatively significant impact to particulate matter in the region.

Exposure to O₃ can cause respiratory irritation, lung damage, aggravate asthma, and may worsen existing chronic lung diseases such as emphysema and chronic bronchitis.¹⁹ O₃ is formed in the atmosphere when heat and sunlight cause a chemical reaction between NO_x and ROG emissions. NO_x and ROG are referred to as ozone precursors and affect air quality on a regional scale. Health effects related to O₃ are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating project-generated criteria pollutants to specific health effects or additional days of nonattainment would produce meaningless results. In other words, the proposed project's less than significant increases in regional air pollution from criteria air pollutants would not have measurable effect on the human health implications of the Basin's ambient air quality.

The Congressional Research service prepared the *Background Ozone: Challenges in Science and Policy* report for U.S. Congress which provides a summary of the scientific capabilities of measuring ozone and understanding the needs and improvements necessary to understand contributions from background sources. While this paper specifically addresses background concentrations of ozone and ozone modeling, it demonstrates the difficulty in assessing ozone and related health implications from any single source or project. According to the Congressional Research Service, currently there are several data and analytical challenges to reliably assess background ozone concentrations and to model ozone. First, the current understanding of the amount, location, and type of pollutant emissions from many types of sources is insufficient. Therefore, inventories typically provide estimation, which may not be precise enough for apportioning contributions. Second, meteorological data (i.e., wind speed, wind direction, temperature, cloud cover, humidity, etc.) is not currently measured at a fine enough spatial scale to adequately represent relevant weather processes. Third, data on pollutant concentrations are limited, which increases the challenges of understanding ozone formation and movement. Fine spatial and temporal measurements are needed both horizontally across the surface and vertically to higher levels of the atmosphere. Finally,

¹⁸ California Air Resources Board. *Overview: Diesel Exhaust & Health*. Available online at: <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>.

¹⁹ U.S. Environmental Protection Agency. *Ozone and Your Health*. Available online at: <https://www.airnow.gov/sites/default/files/2020-02/ozone-c.pdf>.

background ozone source contributions change by year, season, day, and hour and from location to location.²⁰

While several models and tools are available to quantify emissions, these models are limited by a number of factors in their ability to determine health impacts of individual development projects. The U.S. EPA currently performs health impact assessments (HIAs) using the Community Multiscale Air Quality (CMAQ)²¹ model for pollutant transport modeling and Environmental Benefits Mapping and Analysis Program – Community Edition (BENMAP – CE) for health impact calculations.²² However, these models are designed to estimate health impacts over a large scale (e.g., city-wide, state-wide). In addition, the CMAQ model requires inputs such as regional sources of pollutants and global meteorological data, which are not readily accessible. In general, the current suite of available models are not able to accurately model concentrations or dispersion of ozone because they are regional models unable to provide accurate results for individual projects. If reliable ozone concentrations can be determined, there is also limitation on being able to correlate concentrations to related health effects.

The SCAQMD acknowledges that quantifying the health impacts from O₃ is difficult. The *2012 Air Quality Management Plan* determines that a reduction of 432 tons (864,000 pounds) per day of NO_x and a reduction of 187 tons (374,000 pounds) per day of VOC would reduce O₃ levels at the highest monitored site by only nine parts per billion.²³ Meaning, large reductions in precursor emissions translate to incremental reductions in measured ozone. Therefore, quantifying O₃ and related O₃ health impacts caused by NO_x or VOC emissions from relatively small projects (defined as projects with regional scope) is limited. Thus, as the proposed project would not exceed SCAQMD thresholds for construction and operational air emissions, it can be reasonably concluded that the proposed project would not have a measurable effect on the human health in the Basin's, nor would it have implications for the ambient air quality. As a result, the proposed project would have a less than significant impact for air quality health impacts.

²⁰ Congressional Research Service. 2019. *Background Ozone: Challenges in Science and Policy*. Available online at: <https://fas.org/sgp/crs/misc/R45482.pdf>.

²¹ U.S. Environmental Protection Agency. *CMAQ: Community Multiscale Air Modeling System*. Available online at: <https://www.epa.gov/cmaq>.

²² U.S. Environmental Protection Agency. *Environmental Benefits Mapping and Analysis Program – Community Edition (BenMAP – CE)*. Available online at: <https://www.epa.gov/benmap>.

²³ SCAQMD. *Final 2012 AQMP*. Available online at: <https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan>.

AQ Impact 3 **Would implementation of the proposed project expose sensitive receptors to substantial air pollutant concentrations? (*Less than Significant*).**

Localized Significance Thresholds

Construction

The nearest sensitive receptors to the proposed project site are residents located approximately 20 feet north of the proposed project site. To identify impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction.

LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAMQD provided the *Final Localized Significance Threshold Methodology* for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific analysis.

As detailed above, the SRA for the LST is the Central LA County area (SRA 1) since this area includes the proposed project site. LSTs apply to CO, NO₂, PM₁₀, and PM_{2.5}. The SCAMQD produced look-up tables for projects that disturb areas less than or equal to 5 acres in size. The proposed project site is approximately 1.685-acres, therefore, the LST threshold for two acres was used for the construction LST analysis.

The SCAQMD's methodology states that "off-site mobile emissions from the project should not be included in the emissions compared to LSTs." Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered. The nearest sensitive receptors to the proposed project site is a single-family residence approximately 20 feet north of the proposed project site. LST screening thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, LSTs for receptors located at 25 meters were utilized in this analysis.

Table 10, Localized Significance of Construction Emissions – Maximum Pounds per Day, presents the proposed project's localized emissions during construction activity. As shown in **Table 10**, the on-site air pollutant emissions on the peak day of construction (with assumed compliance of SCAQMD Rule 403) would not exceed the applicable LST. Therefore, the proposed project's localized air quality impacts would not expose sensitive receptors to substantial air pollutant concentrations. Impacts would be less than significant.

Table 10
Localized Significance of Construction Emissions – Maximum Pounds per Day

Construction Year	NOx	CO	PM10	PM2.5
2022	27.35	22.74	6.18	1.95
2023	8.42	7.68	0.37	0.34
2024	14.83	18.24	0.68	0.63
LST Screening Threshold	108	1,048	8	5
<i>Exceed?</i>	<i>No</i>	<i>No</i>	<i>Yes</i>	<i>No</i>

Source: Impact Science, CalEEMod modeling, 2021. See Appendix A.

Note: Building Construction, Paving, and Architectural Coating phases will all overlap in 2024. The on-site maximum daily emissions during each phase were added together to provide the most conservative assessment of possible emissions on the proposed project site.

Localized Operational Significance Analysis

According to the SCAQMD LST methodology, LSTs would apply to the operational phase of a proposed project only if the project includes stationary sources or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). The project is proposing a mixed use development with 242 residential units and 10,900 square feet of commercial space and, therefore, does not include such land uses. Thus, due to the lack of queuing and idling emissions, no long-term localized significance threshold analysis is needed. The proposed project's operational LST impacts would not expose sensitive receptors to substantial air pollutant concentrations. Impacts would be less than significant.

Localized Air Quality Health Impacts

As evaluated above, the proposed project's air emissions would not exceed the SCAQMD's LST thresholds. Therefore, the project would not cause or contribute to an exceedance of the most stringent applicable NAAQS or CAAQS for emissions of CO, NOx, PM10, or PM2.5. It should be noted that the ambient air quality standards are developed and represent levels at which the most susceptible persons are protected. In other words, the ambient air quality standards are purposely set in a stringent manner to protect children, elderly, and those with existing and respiratory problems. Thus, air quality health impacts would be less than significant.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection

may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.).

The SCAB is designated as an attainment/maintenance area for the federal CO standards and attainment area for state standards. CO emissions have declined in recent years even as VMT on urban and rural roads have increased nationwide. Estimated anthropogenic CO emissions have decreased 68 percent between 1990 and 2014. In 2014, mobile sources accounted for 82 percent of the nation’s total anthropogenic CO emissions.²⁴ Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

According to the SCAQMD CEQA Air Quality Handbook, a potential CO hotspot may occur at any location where the background CO concentration already exceeds 9.0 ppm, the CAAQS for 8-hour ozone. The SCAQMD prepared a detailed CO analysis in the *Federal Attainment Plan for Carbon Monoxide* as part of the 2003 AQMP.²⁵ The 2003 AQMP is the most recent AQMP that addresses CO concentrations. The CO analysis included microscale modeling of CO at the worst-case intersections in SCAB. Of these locations, the Wilshire Boulevard and Veteran Avenue intersection in Los Angeles experienced the highest CO concentration of 4.6 ppm. At the time of analysis, the Wilshire Boulevard and Veteran Avenue intersection was the most congested intersection in Los Angeles County with an average daily traffic volume of approximately 100,000 vehicles per day. As CO impacts at the Wilshire Boulevard and Veteran Avenue intersection did not exceed the 8-hour CAAQS, it can be inferred that the intersections near the project site, which generate fewer vehicles per day, would not create any CO hotspots. Furthermore, as previously discussed, the site is located in SRA 1, Central Los Angeles County. The monitoring station closest to the Project site is the Los Angeles – North Main Street station, located at 1630 North Main Street approximately 6.44 miles east of the project site. According to data obtained from the EPA’s AirData database for CO pollutants, the highest eight-hour concentration reported for the VA Hospital, West Los Angeles station in 2020 was 1.6 ppm.²⁶ As such, the background CO concentration in combination with the CO concentration at worst-case scenario intersection in SCAB do not exceed 9.0 ppm and a CO hotspot would not occur. Therefore, the proposed project’s CO hotspot impacts would not expose sensitive receptors to substantial air pollutant concentrations. Impacts would be less than significant.

²⁴ U.S. Environmental Protection Agency. 2018. *Report on the Environment: Carbon Monoxide Emissions*. Available online at: <https://cfpub.epa.gov/roe/indicator.cfm?i=10>.

²⁵ SCAQMD. 2003 *Air Quality Management Plan*. Available online at: <https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/2003-aqmp>.

²⁶ U.S. Environmental Protection Agency. 2018. *Monitor Values Report*. Available: <https://www.epa.gov/outdoor-air-quality-data/monitor-values-report>.

Diesel Particulate Matter

Project Construction

Construction would result in the generation of diesel particulate matter (diesel PM) emissions from the use of off-road diesel equipment required for grading and excavation, paving, and other construction activities. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic. The duration of exposure would be short and exhaust from construction equipment dissipates rapidly. Current methodology for conducting health risk assessments are associated with long term exposure periods (9, 30, and 70 years). Therefore, short-term construction activities would not generate a significant health risk.

Additionally, the proposed project site is approximately 1.685-acres. Generally, construction for projects contained in a site of such size to represent less than significant health risk impacts due to limitations of the off-road diesel equipment able to operate and thus a reduced amount of generated DPM, reduced amount of dust-generating ground-disturbance possible compared to larger construction sites, and reduced duration of construction activities compared to the development of larger sites. Furthermore, construction would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than 5-minutes, which would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions.²⁷ For these reasons, DPM generated by construction activities, in and of itself, would not be expected to expose sensitive receptors to substantial amounts of air toxics and the proposed project would have a less than significant impact.

Project Operation

The greatest potential during long-term operations for exposure to TACs is from the use of heavy-duty diesel trucks and stationary generators that use diesel fuel. The proposed project is a 242-unit residential development with 10,900 square feet of commercial space. Once operational, the majority of vehicle trips to the project site would be from residents and employees and, as a result, the proposed project would attract very few diesel truck trips. Additionally, the project does not propose any stationary generators on-site.

²⁷ California Air Resources Board. 2015. *Frequently Asked Questions Regulation for In-Use Off-Road Diesel-Fueled (Off-Road Regulation)*. Available online at: <https://ww3.arb.ca.gov/msprog/ordiesel/faq/idlepolicyfaq.pdf>.

Furthermore, the existing project site includes a two-story commercial building that attracts heavy-duty vehicle truck trips from vendors and includes a dry-cleaning facility that uses solvents that can cause TAC emissions. The proposed project will replace these land uses and emissions sources from the project site. For these reasons, once operational, the proposed project would not be expected to expose nearby sensitive receptors to substantial amounts of air toxics and the project would have a less than significant impact.

AQ Impact 4 Would the proposed project include sources that could create other emissions (such as those leading to odors) adversely affecting a substantial number of people? (*Less than Significant*).

The SCAQMD *CEQA Air Quality Handbook* (1993) identifies certain land uses as sources of odors. These land uses include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. Once operational, the proposed project will serve as a residential and office development with minor retail uses. The proposed project would not include any of the land uses that have been identified by the SCAQMD as odor sources.

Construction activities associated with the proposed project may generate detectable odors from heavy-duty equipment exhaust and architectural coatings. However, construction-related odors would be short-term in nature and cease upon proposed project completion. In addition, the proposed project would be required to comply with the California Code of Regulations, Title 13, sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would reduce the detectable odors from heavy-duty equipment exhaust. The proposed project would also be required to comply with the SCAQMD Rule 1113 – Architectural Coating, which would minimize odor impacts from ROG emissions during architectural coating. Any odor impacts to existing adjacent land uses would be short-term and not substantial. As such, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant.

3.0 GREENHOUSE GAS

3.1 Greenhouse Gas Setting

Global climate change refers to any significant change in climate measurements, such as temperature, precipitation, or wind, lasting for an extended period (i.e., decades or longer).²⁸ Climate change may result from:

- Natural factors, such as changes in the sun’s intensity or slow changes in the Earth’s orbit around the sun;
- Natural processes within the climate system (e.g., changes in ocean circulation, reduction in sunlight from the addition of GHG and other gases to the atmosphere from volcanic eruptions); and
- Human activities that change the atmosphere’s composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, desertification).

In recent decades, changes in climate have caused impacts on natural and human systems on all continents and across the oceans. Impacts are due to observed climate change, irrespective of its cause, indicating the sensitivity of natural and human systems to changing climate.²⁹ Continuing changes to the global climate system and ecosystems, and to California, are projected to include:

- Rapidly diminishing sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere’s ability to hold more water vapor at higher temperatures³⁰;
- Rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and ice sheets;
- Changing weather patterns, including changes to precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;

28 US EPA. 2013. Overview of Greenhouse Gases. Available online at: <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>. Accessed on August 11, 2018.

29 Intergovernmental Panel on Climate Change. 2013. “Climate Change 2013: The Physical Science Basis.” Available online at: <http://www.climatechange2013.org/>. Accessed August 13, 2018.

30 Ibid.

- Changing levels in snowpack, river flow and sea levels indicating that climate change is already affecting California’s water resources³¹;
- Dry seasons that start earlier and end later, evoking more frequent and intense wildland fires³²; and
- Increasing demand for electricity due to rising temperatures.³³

The natural process through which heat is retained in the troposphere³⁴ is called the “greenhouse effect.” Various gases in the Earth’s atmosphere, classified as atmospheric greenhouse gases, play a critical role in determining the Earth’s surface temperature. Solar radiation enters Earth’s atmosphere as short wave radiation. It travels through the atmosphere without warming it and is absorbed by the Earth’s surface. When the Earth re-emits this radiation back toward space, the radiation changes to long wave radiation. GHGs are transparent to incoming short wave solar radiation but absorb outgoing long wave radiation. As a result, radiation that otherwise would escape back into space is now retained, warming the atmosphere. This phenomenon is known as the greenhouse effect.

Greenhouse Gas Compounds

California State law defines GHGs to include the following six compounds:

- **Carbon Dioxide** (CO₂) is released to the atmosphere when solid waste, fossil fuels (oil, natural gas, and coal), and wood and wood products are burned. CO₂ emissions from motor vehicles occur during operation of vehicles and operation of air conditioning systems.
- **Methane** (CH₄) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from the decomposition of organic waste in solid waste landfills, raising livestock, natural gas and petroleum systems, stationary and mobile combustion, and wastewater treatment.
- **Nitrous Oxide** (N₂O) is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels. N₂O emissions from motor vehicles generally occur directly from operation of vehicles.

31 California Environmental Protection Agency (Cal EPA). 2010. Climate Action Team Report to Governor Schwarzenegger and the Legislature.

32 Ibid.

33 California Environmental Protection Agency (Cal EPA). 2010. Climate Action Team Report to Governor Schwarzenegger and the Legislature.

34 The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth’s surface from 6- to 7-miles).

- **Hydrofluorocarbons** (HFCs) are one of several high global warming potential (GWP) gases that are not naturally occurring and are generated from industrial processes. HFC (refrigerant) emissions from vehicle air conditioning systems occur due to leakage, losses during recharging, or release from scrapping vehicles at end of their useful life.
- **Perfluorocarbons** (PFCs) are another high GWP gas that are not naturally occurring and are generated in a variety of industrial processes. Emissions of PFCs are generally negligible from motor vehicles.
- **Sulfur Hexafluoride** (SF₆) is another high GWP gas that is not naturally occurring and is generated in a variety of industrial processes. Emissions of SF₆ are generally negligible from motor vehicles.

3.2 Existing Setting

The existing project site is developed with a two-story multi-tenant commercial retail building with fast-food restaurants, massage parlors, dentistry offices, hair salons, and dry cleaners. Land uses at this site associated with GHG emissions are from customer and employee vehicle trips to the site, vendor truck trips to the site, energy sources, and area sources. GHG emissions from the existing site were calculated using CalEEMod to determine the existing site's annual GHG emissions (see **Impact 1**).

3.3 Regulatory Framework

Federal

Paris Climate Agreement

The Paris Climate Agreement is an international treaty on climate change adopted on December 12, 2015. The goal of the agreement is to limit global warming to 1.5 degrees Celsius as compared to pre-industrial levels. Countries will aim to reach global peaking of GHG emissions as soon as possible to achieve a climate neutral world by mid-century. In order to achieve these reductions, the Paris Climate Agreement works on a 5-year cycle of increasingly ambitious climate action carried out by countries. Therefore, by 2020, countries were required to submit their plans for climate action, known as nationally determined contributions. Additionally, the Agreement provides a framework for financial, technical and capacity building support to those countries who need it. Developed countries will take a lead in providing financial assistance to other countries since large scale investments are required for GHG mitigation and climate adaptation.³⁵

³⁵ United Nations. *The Paris Agreement*. Available online at <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

The United States joined 190 other countries in the Paris Climate Agreement under the Obama administration in September 2016.³⁶ Under the Trump administration, the former President announced his intention to withdraw from the Agreement in June 2017 and formally notified the United Nations in November 2019. However, the Agreement requires a year long waiting period before a formal withdrawal will be recognized. As a result, the United States officially withdrew the Agreement in November 2020.³⁷ However, on January 20, 2021, President Biden accepted and rejoined the Paris Climate Agreement.³⁸

State

The state of California has implemented a series of greenhouse gas plans and policies aimed at reducing state greenhouse gas emissions. Measures applicable to the project are summarized below:

Executive Order (EO) S-03-05

On June 1, 2005 EO S-03-05 was issued by Governor Schwarzenegger in order to set statewide emissions reduction standards. The order required the state to reduce GHG emissions to 1990 levels by 2020 and reduce GHG emissions to 80% below 1990 levels by 2050. EO S-3-05 also calls for the Secretary of California Environmental Protection Agency (Cal/EPA) to be responsible for coordination of state agencies and progress reporting.

Assembly Bill (AB) 32

AB 32 (California Global Warming Solutions Act of 2006) was codified into law in 2006 and codified into law the 2020 GHG emissions targets set by EO S-03-05. AB 32 represents the first enforceable statewide program to limit GHG emissions from all major sectors with penalties for noncompliance.

Senate Bill (SB) 32

SB 32 was signed into law in 2015 and sets into law the mandated reduction targets set in EO B-30-15, which required a reduction in GHG emissions to 40% below the 1990 levels by 2030.

³⁶ The White House. *President Obama: The United States Formally Entered the Paris Agreement*. Available online at: <https://obamawhitehouse.archives.gov/blog/2016/09/03/president-obama-united-states-formally-enters-paris-agreement>.

³⁷ NPR. *U.S. Officially Leaving Paris Climate Agreement*. Available online at: <https://www.npr.org/2020/11/03/930312701/u-s-officially-leaving-paris-climate-agreement>.

³⁸ The White House. 2021. *Paris Climate Agreement*. Available online at: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/paris-climate-agreement/>.

CARB's 2017 Final Scoping Plan

The California Air Resources Board (CARB) in collaboration with over twenty state agencies issued a Final Scoping Plan in 2017 in order to set a framework for the state to meet the overall reduction goals set in SB 32. The 2017 Scoping Plan identified key sectors of the implementation strategy, which includes improvements in low carbon energy, industry, transportation sustainability, natural and working lands, waste management, and water. Through a combination of data synthesis and modeling, CARB determined that the target statewide 2030 emissions limit is 260 MMTCO_{2e}, and that further commitments will need to be made to achieve an additional reduction of 50 MMTCO_{2e} beyond current policies and programs. Key elements of the 2017 Update include a proposed 20 percent reduction in GHG emissions from refineries and an expansion of the Cap-and-Trade program to meet the aggressive 2030 GHG emissions goal.

Regional

SCAQMD Draft Guidance Regarding Interim CEQA GHG Significance Thresholds

SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds. In its October 2008 document, the SCAQMD proposed the use of a percent emission reduction target (e.g., 30 percent) to determine significance for commercial/residential projects that emit greater than 3,000 metric tons per year. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for stationary source/industrial projects where the SCAQMD is lead agency. However, SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects) and has formed a GHG Significance Threshold Working Group to further evaluate potential GHG significance thresholds. The draft tier thresholds recommended by the SCAQMD Working Group were never authorized as guidance for GHG analyses. These recommended thresholds are over a decade old; as a result, these thresholds were not utilized in this analysis.

SCAG 2020 Connect SoCal Plan RTP/SCS

On September 3, 2020, the Southern California Association of Governments (SCAG) Regional Council unanimously voted to approve and fully adopt Connect SoCal (2020-2045 Regional Transportation Plan/Sustainable Communities Strategy [RTP/SCS]).

Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable and prosperous region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern Californians. In addition, Connect

SoCal is supported by a combination of transportation and land use strategies that outline how the region can achieve California's greenhouse gas emission reduction goals and federal CAA requirements. The plan also strives to achieve broader regional objectives, such as the preservation of natural lands, improvement of public health, increased roadway safety, support for the region's vital goods movement industries and more efficient use of resources.

3.4 Thresholds and Methodology

Thresholds of Significance

The impact analysis provided below is based on the application of the following CEQA Guidelines Appendix G, which indicates that a proposed project would have a significant impact on GHG emissions if it would:

- 1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- 2) Conflict with an applicable plan, policy or regulations adopted for the purpose of reducing the emissions of greenhouse gas emissions.

Methodology

GHG emissions and climate change were evaluated in accordance with Appendix G of the 2019 *CEQA Guidelines*. *CEQA Guidelines* Section 15064.4 states that, when making a determination with respect to the significance of a project's GHG emissions, a lead agency shall have discretion to determine whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use; and/or (2) Rely on a qualitative analysis or performance-based standards. Section 15064.4 also states that a lead agency should consider the following factors when assessing the significance of the impact of GHG emissions on the environment: (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting; (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

GHG emissions were calculated in the same CalEEMod model used to determine the proposed project's criteria air pollutant emissions. Consistent with SCAQMD recommendations, construction emissions were amortized over a thirty-year period and added to the annual operational emissions to determine the proposed project's annual GHG emissions. Consistent with *CEQA Guidelines* Section 15064(h)(3), project

significance was determined based on the proposed project's consistency with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the proposed project. CARB's 2017 Scoping Plan and SCAG's 2020 Connect SoCal Plan apply to the proposed project and are intended to reduce GHG emissions to meet the statewide targets set in Senate Bill (SB) 32. Thus, the proposed project would not have a significant effect on the environment if it is found to be consistent with CARB's 2017 Scoping Plan and SCAG's 2020 Connect SoCal Plan.

3.5 Project Impacts

GHG Impact 1 **Would implementation of the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (*Less than Significant*).**

Both construction period and operational period activities would have the potential to generate GHG emissions.

Construction Emissions

The Proposed Project would generate GHG emissions during temporary, short-term construction activities such as demolition, site preparation and grading, running of construction equipment engines, movement of on-site heavy-duty construction vehicles, hauling of materials to and from the site, asphalt paving, and construction worker motor vehicle trips.

Through CalEEMod, proposed project GHG emissions throughout proposed project construction were calculated from off-road equipment usage, hauling vehicles, delivery, and worker trips to and from the site. The total GHG construction emissions over the approximately 2.5-year construction period of the proposed project would be approximately 1,965.3 metric tons on carbon dioxide (MT CO₂e). As GHG emissions impact from construction activities would occur over a relatively short time span, it would contribute a relatively small portion of the lifetime GHG emission impact of the proposed project. The total construction GHG emissions were divided by 30 to determine an annual construction emission rate to be amortized over the Proposed Project's first 30 years of operational life, consistent with CEQA analysis across the state. Amortized over a 30-year period, the proposed project is anticipated to emit approximately 65.5 metric tons of carbon dioxide per year (MT CO₂e/year).

Operational Emissions

Operational emissions occur over the life of the Project. The Proposed Project will construct the 242-unit residential building, 10,900 square feet of commercial space, and parking on the site. The Proposed Project is expected to generate GHG emissions from area, energy, and mobile-source emissions as the site will generate vehicle trips from residents and employees. Area source emissions are based on the land use sizes, GHG emission factors for fuel combustion, and the global warming potential (GWP) values for the GHGs emitted. Electricity usage emissions are based on the land uses, default demand factors for the land use, GHG emission factors for the utility provider, and the GWP values of the GHGs emitted. Mobile-source GHG emissions are determined based on the Project's estimated annual VMT, which is calculated in CalEEMod based on the daily trip generation rates estimated through the LADOT's MOU. Waste and water emissions are derived from the anticipated water usage and wastewater generated based on the Project's proposed land uses and the associated water demand factors.

The estimated total net annual Project emissions, including operation emissions and amortized construction emissions from the proposed project and operational emissions from the existing site, are detailed in **Table 11, Proposed Project Greenhouse Gas Emissions**.

Table 11
Proposed Project Greenhouse Gas Emissions

Emissions Source	Metric Tons of Carbon Dioxide Equivalent (per year)
Amortized Construction	65.5
Area Sources	54.1
Energy Sources	1,203
Mobile Sources	2,002
Waste Sources	62.0
Water Sources	209
Total Proposed GHG Emissions	3,595.2
Total Existing GHG Emissions	1,651.8
Net GHG Emissions	1,943

Source: Impact Sciences, 2021.

As shown in **Table 11**, the Project's combined long-term net operational emissions and amortized construction emissions would be approximately 1,943 MT CO₂e/year. However, Proposed Project

significance is based on the Project’s consistency with statewide and regional policies and plans to meet the state reduction goals set in SB 32, including CARB’s 2017 Scoping Plan and SCAG’s 2020 Connect SoCal RTP/SCS, see GHG **Impact 2**.

GHG Impact 2 **Would implementation of the proposed project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Less than Significant).**

The Proposed Project would have a significant impact with respect to GHG emissions and global climate change if it would substantially conflict with the provisions of Section 15064.4(b) of the State CEQA Guidelines.

Pursuant to Appendix G of the *CEQA Guidelines*, a significant GHG impact is identified if the project could conflict with applicable GHG reduction plans, policies, or regulations. Development projects would be subject to complying with SB 32, and SCAG’s Connect SoCal Plan. SB 32 is a statewide reduction goal aimed at reducing emissions to 40% below 1990 levels by 2030. CARB’s 2017 Scoping Plan sets a framework for the State to meet the reduction targets of SB 32.

Consistency with the Final 2017 Scoping Plan Update

CARB issued the Final 2017 Scoping Plan Update in November 2017 and establishes emissions reduction strategies necessary to meet SB 32’s 2030 reduction goals. **Table 12, Project Consistency with CARB 2017 Scoping Plan Measures** identifies the Scoping Plan policies that are applicable to the proposed project. As shown, the Proposed Project would be consistent with the Scoping Plan.

Table 12	
Project Consistency with CARB 2017 Scoping Plan	
Greenhouse Gas Emission Reduction Strategies	
Strategy	Project Consistency
<p><i>Implement SB 350 by 2030:</i></p> <ul style="list-style-type: none"> • Increase the Renewables Portfolio Standard to 50 percent of retail sales by 2030 and grid reliability. • Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030. 	<p>Not Applicable. The measure is not related to development projects but intended for energy providers.</p> <p>Not Applicable. This measure is directed towards policymakers, not development projects. However, the proposed project is required to meet CALGreen building standards by including measures designed to reduce energy consumption.</p>

Table 12	
Project Consistency with CARB 2017 Scoping Plan Greenhouse Gas Emission Reduction Strategies	
Strategy	Project Consistency
<ul style="list-style-type: none"> Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in the IRPs to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly-owned utilities meet GHG emissions planning targets through a combination of measures as described in IRPs. 	<p>Consistent. The proposed project is required to adhere to the latest CALGreen building Codes and Title 24, which will result in a more efficient project site.</p>
<p>Implement Mobile Source Strategy (Cleaner Technology and Fuels):</p> <ul style="list-style-type: none"> Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion." 	<p>Not Applicable. This measure is directed towards policymakers, not development projects.</p> <p>However, the proposed project is located 0.25 miles from the Wilshire/La Brea Purple Line station that is expected to begin operations in 2023. As a result, the proposed project will reduce VMT as a result of locating residents and job opportunities near a major transit line.</p>
<p>By 2019, develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road use, parking pricing, transit discounts).</p>	<p>Not Applicable. This measure is directed towards policymakers, not development projects.</p> <p>However, the proposed project will provide housing and job opportunities near future Wilshire/La Brea Purple Metro Line station that will encourage transit use.</p>
<p>By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.</p>	<p>Not Applicable. This measure is directed towards CARB, CalRecycle, CDFA, SWRCB, and local air districts.</p> <p>However, the statewide policy goals of 75 percent of solid waste generated be source reduce, recycled, or composted by 2020 under AB 341. Since the project will be operational after this year, the project's waste collection service will be required to be compliant with this waste reduction.</p>

Table 12	
Project Consistency with CARB 2017 Scoping Plan Greenhouse Gas Emission Reduction Strategies	
Strategy	Project Consistency
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	Not Applicable. This measure is directed towards policymakers, not development projects. However, the Proposed Project will be required to adhere to the latest CALGreen Building Standards and Title 24 which will reduce GHG emissions from energy use. Furthermore, the proposed project will be constructed near the future Wilshire/La Brea Purple Line Metro Station.
<hr/> <p><i>Source: Impact Sciences, 2021.</i> CARB. California's 2017 Climate Change Scoping Plan. Available online at: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, accessed February 5, 2021.</p>	

Based on this evaluation, this analysis finds the project would be consistent with all feasible and applicable strategies recommended in the 2017 Scoping Plan Update.

Consistency with SCAG’s Connect SoCal Plan

At the regional level, SCAG’s Connect SoCal Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) represent the region’s Climate Action Plan that defines strategies for reducing GHGs. In order to assess the project’s potential to conflict with the RTP/SCS, this section analyzes the project’s land use profile for consistency with those in the RTP/SCS. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG’s RTP/SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals.

Table 13, Project Consistency with SCAG’s RTP/SCS demonstrates the project’s consistency with the Strategies set forth in the Connect SoCal Plan. The project would also be consistent with the applicable strategies set forth in the RTP/SCS’s “A Path to Greater Access, Mobility, & Sustainability” chapter. Therefore, the project would be consistent with the GHG reduction related actions and strategies contained in Connect SoCal.

Table 13	
Project Consistency with SCAG’s RTP/SCS	
Actions and Strategies	Consistency Analysis
<i>Focus Growth Near Destinations & Mobility Options</i>	
Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations	Consistent: The proposed project would construct 242 residential units and commercial space near the Wilshire/Highland bus stop for Metro Bus Line 20. In addition, the Metro Purple Line is currently under construction in order to extend the Purple (D Line) from Koreatown to West Los Angeles along Wilshire Blvd. The future Wilshire/La Brea Purple (D Line) station is approximately 0.25 miles west of the project site and is expected to become operational by 2023. ¹ As a result, by project operation, the residents and employees will have access to a major transit stop. Moreover, the Proposed Project will include on-site secure bicycle parking that will promote active transportation.
Focus on job/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets	Consistent: The proposed project would construct commercial and residential space that will provide job and housing opportunities approximately 0.25 miles from the future Wilshire/La Brea Metro Purple line station.
Plan for growth near transit investments and support implementation of first/last mile strategies	Consistent: The proposed project would construct commercial and residential space that will provide job and housing opportunities approximately 0.25 miles from the future Wilshire/La Brea Metro Purple line station. Moreover, the Proposed Project will include on-site secure bicycle parking that will promote active transportation.
<i>Focus Growth Near Destinations & Mobility Options</i>	
Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses	Consistent: The proposed project would redevelop an existing two-story commercial building to a 242-unit residential project with 25 low-income units and 10,900 square feet of commercial space near a future Metro Purple Line station to construct a mixed-use development that will facilitate transit use from residents and employees living or working on the site.
Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods	Consistent: The proposed project would redevelop an existing two-story commercial building to a 242-unit residential project with 25 low-income units and 10,900 square feet of commercial space near a future Metro Purple Line station to construct a mixed-use development that will facilitate transit use from residents and employees living or working on the site.
Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations)	Consistent: The proposed project would redevelop an existing two-story commercial building to a 242-unit residential project with 25 low-income units and 10,900 square feet of commercial space near a future Metro Purple Line station to construct a mixed-use

Table 13	
Project Consistency with SCAG's RTP/SCS	
Actions and Strategies	Consistency Analysis
	development that will facilitate transit use from residents and employees living or working on the site.
<i>Promote Diverse Housing Crisis</i>	
Preserve and rehabilitate affordable housing and prevent displacement	Consistent: The proposed project will redevelop an existing two-story commercial and would not displace any affordable housing units. Instead, the proposed project will construct housing on the project site, including 25 affordable residential units.
Identify opportunities for new workforce and affordable housing development	Consistent: The Proposed Project is a mixed-use development with 242 residential uses including 25 affordable residential units. The proposed project will remove a two-story commercial building that provided job opportunities, however, the site will include office and retail space that will allow opportunities for new workers.
<i>Leverage Technology Innovations</i>	
Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedications lanes, charging and parking/drop-off space	Not Applicable: This strategy is aimed at local government to promote shared bikes and scooters, electric vehicles, ride sharing and provide safe infrastructure such dedicated lanes, charging and parking/ drop-off space. The proposed project would not interfere with such policymaking.
Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation	Not Applicable: This strategy is aimed at local government to identify ways to incorporate "micro-power grids." The proposed project would not interfere with such policymaking.
<i>Support Implementation of Sustainability Policies</i>	
Pursue funding opportunities to support local sustainable development implementation projects that reduce GHG emissions	Not Applicable: While this strategy calls on local governments to adopt policies for sustainable infrastructure and development projects, the proposed project would not interfere with such policymaking.
Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations	Not Applicable: While this strategy calls on the state to adopt policies to new construction near transit corridors and stations, the proposed project would not interfere with such policymaking and would construct a mixed-use development near the future Wilshire/La Brea Purple Line Metro Station.
Support cities in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects	Not Applicable: While this strategy calls on cities to establish tax incentive or other value capture tools to finance sustainable infrastructure, the proposed project would not interfere with such policymaking.
Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies	Not Applicable: While this strategy calls on SCAG to work with local jurisdictions to identify ways to

Table 13	
Project Consistency with SCAG's RTP/SCS	
Actions and Strategies	Consistency Analysis
	implement sustainable strategies, the proposed project would not interfere with such policymaking.
Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region	Not Applicable: While this strategy calls on planning organizations to promote resources and best practices in SCAG, the proposed project would not interfere with such policymaking.
Continue to support long range planning efforts by local jurisdictions	Not Applicable: While this strategy calls on local jurisdictions to support long range planning, the proposed project would not interfere with such policymaking.
Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy	Not Applicable: While this strategy calls on local jurisdictions to provide educational opportunities on new tools and practices to promote the Sustainable Communities Strategy, the proposed project would not interfere with such policymaking.
Promote a Green Region	
Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards.	Not Applicable: While this strategy calls on local jurisdictions to support the development of local climate adaptation and hazard mitigation plans, the project would not interfere with this goal.
Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration.	Not Applicable: While this strategy calls on local governments to adopt policies for renewable energy production, the proposed project would not interfere with such policymaking.
Integrate local food production into the regional landscape	Not Applicable: While this strategy calls on local governments to integrate local food into the regional landscape, the proposed project would not interfere with such policymaking.
Promote more resource efficient development focused on conservation, recycling and reclamation	Consistent. The Proposed Project will be required to adhere to the latest CALGreen Building Codes and Title 24, which will result in a more efficient project site.
Preserve, enhance and restore regional wildlife connectivity	Not Applicable: The Proposed Project will be constructed in an existing urban setting. The project would not interfere with this goal.
Reduce consumption of resource areas, including agricultural land	Consistent. The Proposed Project will be constructed in an existing urban setting and, as a result, will not consume any resource areas or agricultural land.
Identify ways to improve access to public park space	Not Applicable. While this strategy calls on local governments to improve access to public park space, the Proposed Project would not interfere with this goal.
<p>Source: <i>Impact Sciences, 2021.</i> SCAG. 2019. <i>Connect SoCal – The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, Chapter 3: A Path to Greater Access, Mobility, & Sustainability.</i> Available online at: https://www.connectsocial.org/Documents/Draft/dConnectSoCal-03_Draft-Plan.pdf, accessed October 19, 2020. ¹ Los Angeles Metro. <i>Purple Line Extension – Section 1.</i> Available online at: https://www.metro.net/projects/purple-section1/.</p>	

Consistency with City of Los Angeles General Plan Air Quality Element

The Proposed Project would be consistent with the City’s General Plan, specifically its Air Quality Element (see **Section 2.4**). While the Element did not explicitly address control of GHG emissions, global climate change, or resiliency objectives, it did identify several goals to reduce criteria pollutant emissions that would also work to reduce GHG emissions that contribute to climate change, see **Table 14, Consistency with the Air Quality Element**.

Table 14	
Project Consistency with the Air Quality Element	
Goal	Consistency Analysis
<p>Good air quality and mobility in an environment of continued population growth and health economy.</p>	<p>Consistent: The Proposed Project would construct 242 residential units and commercial space near the Wilshire/Highland bus stop for Metro Bus Line 20. In addition, the Metro Purple Line is currently under construction in order to extend the Purple (D Line) from Koreatown to West Los Angeles along Wilshire Blvd. The future Wilshire/La Brea Purple (D Line) station is approximately 0.25 miles west of the project site and is expected to become operational by 2023.¹ As a result, by project operation, the residents and employees will have access to a major transit stop.</p> <p>Moreover, the Proposed Project will include on-site secure bicycle parking that will promote active transportation.</p> <p>Therefore, by placing housing and commercial space near transit and providing opportunities for alternative mobility options, the Proposed Project will help improve air quality and mobility by reducing the number of gas/diesel-fueled vehicles on the road.</p>
<p>Less reliance on single-occupant vehicles with fewer commute and non-work trips.</p>	<p>Consistent: The Proposed Project would construct 242 residential units and commercial space near the Wilshire/Highland bus stop for Metro Bus Line 20. In addition, the Metro Purple Line is currently under construction in order to extend the Purple (D Line) from Koreatown to West Los Angeles along Wilshire Blvd. The future Wilshire/La Brea Purple (D Line) station is approximately 0.25 miles west of the project site and is expected to become operational by 2023.¹ As a result, by project operation, the residents and employees will have access to a major transit stop.</p> <p>Moreover, the Proposed Project will include on-site secure bicycle parking that will promote active transportation.</p> <p>Therefore, by placing housing and commercial space near transit and providing opportunities for alternative mobility options, the Proposed Project will help reduce</p>

Table 14 Project Consistency with the Air Quality Element	
Goal	Consistency Analysis
	reliance on single-occupant vehicles with fewer commute and non-work trips.
Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand management techniques.	Consistent: The Proposed Project would minimize congestion impacts in the region because of the Project Site’s proximity to public transit.
Minimal impact of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.	Consistent. The Proposed Project would replace an existing commercial space with an infill project with residential and commercial uses near public transit. The Proposed Project with the Element’s focus on growing near transit facilities.
Energy efficiency through land use and transportation planning, the use of renewable resources and less polluting fuels, and the implementation of conservation measures including passive methods such as site orientation and free parking.	Consistent. The Proposed Project would replace an existing commercial space with an infill project with residential and commercial uses near public transit that will reduce single vehicle trips to and from the project site. Furthermore, the Proposed Project will be required to be consistent with CalGreen and Title 24 standards.
Citizen awareness of the linkages between personal behavior and air pollution, and participation in efforts to reduce air pollution.	Not Applicable. The goal is focused on City outreach and public education about personal behavior and its connection to air pollution. The Proposed Project would not interfere with this goal.
<p><i>Source: Impact Sciences 2021.</i> <i>City of Los Angeles. Air Quality Element.</i> Available online at: https://planning.lacity.org/odocument/0ff9a9b0-0adf-49b4-8e07-0c16f6ea70bc/Air_Quality_Element.pdf.</p>	

Consistency with City of Los Angeles Green New Deal

In 2019, the City of Los Angeles released the Green New Deal as an update to the City’s 2015 Sustainable City pLAN. The City’s Green New Deal is an expanded vision of the pLAN and aims to guide the City’s transition to a more sustainable future. The Green New Deal sets forth a series of accelerated targets that will reduce GHG emissions. Many of these targets are not applicable at the project level, however, the Proposed Project will still further the overall goal where applicable, see **Table 15, Consistency with the City’s Green New Deal.**

Table 15 Project Consistency with the City’s Green New Deal	
Targets	Consistency Analysis
Supply 55% renewable energy by 2025; 80% by 2036; and 100% by 2045.	Not Applicable. This measure is directed at energy providers to increase the amount of renewable energy

Table 15	
Project Consistency with the City's Green New Deal	
Targets	Consistency Analysis
	created. The Proposed Project will not interfere with this target. Further,
Source 70% of our water locally by 2035, and capture 150,000 acre feet per year of stormwater by 2035.	Not Applicable. This target is directed at water suppliers to increase the amount of local water provided. The Proposed Project will not interfere with implementation of this project. Further, the proposed project will convert Carling Way and the northern portion of the existing site into greenspace that will increase the amount of permeable land and increase the potential for stormwater infiltration and groundwater recapture as compared to the existing site.
Reduce building energy use per square foot for all types of buildings by 22% by 2035; 34% by 2035; and 44% by 2050.	Consistent: The Proposed Project will replace an existing commercial building with the Proposed Project. The Proposed Project will be required to adhere to the latest CalGreen and Title 24 requirements that will result in a more efficient building per square foot than the existing project.
Reduce Vehicle Miles Traveled per capita by at least 13% by 2025, 39% by 2035, and 45% by 2050.	Consistent. The proposed project would construct 242 residential units and commercial space near the Wilshire/Highland bus stop for Metro Bus Line 20. In addition, the Metro Purple Line is currently under construction in order to extend the Purple (D Line) from Koreatown to West Los Angeles along Wilshire Blvd. The future Wilshire/La Brea Purple (D Line) station is approximately 0.25 miles west of the project site and is expected to become operational by 2023. ¹ As a result, by project operation, the residents and employees will have access to a major transit stop. Moreover, the Proposed Project will include on-site secure bicycle parking that will promote active transportation. As a result, the Proposed Project will encourage active and public forms of transportation for residents, visitors, and employees which will reduce the amount of vehicle miles traveled.
Ensure 57% of new housing units are built within 1,500 feet of transit by 2035; and 75% by 2035.	Consistent. The Proposed Project lies adjacent to the Wilshire/Highland bus stop for the Metro Bus Line 20 and lies 0.25 miles (approximately 1,320 feet) from the future Wilshire/La Brea Purple (D Line) Station that will become operational before the Proposed Project.
Increase the percentage of zero emission vehicles in the city by 25% by 2025; 80% by 2035; and 100% by 2050/	Not Applicable. This target is directed at the City of Los Angeles, not individual project. The Proposed Project would not interfere with implementation of this target.
Create 300,000 green jobs by 2035; and 400,000 by 2050	Not Applicable. This target is directed at the City of Los Angeles, not individual project. The Proposed Project would not interfere with implementation of this target.

Table 15	
Project Consistency with the City’s Green New Deal	
Targets	Consistency Analysis
Convert all city fleet vehicles to zero emission where technically feasible by 208.	Not Applicable. This target is directed at the City of Los Angeles, not individual project. The Proposed Project would not interfere with implementation of this target.
Reduce municipal GHG emissions 55% by 2025 and 65% by 2035 from 2008 baseline levels, reaching carbon neutral by 2045.	Not Applicable. This target is directed at the City of Los Angeles, not individual project. The Proposed Project would not interfere with implementation of this target.
<p><i>Source: Impact Sciences, 2021.</i> <i>City of Los Angeles. 2019. L.A.’s Green New Deal. Available online at: https://plan.lamayor.org/sites/default/files/pLAn_2019_final.pdf.</i></p>	

Conclusion

The proposed project will replace an existing commercial development that hosts dental offices, fast-food restaurants, a dry cleaners, and other commercial businesses with a mixed use development that include 242 new housing units, including 25 units designated for low-income, and 10,900 square feet of commercial space. The proposed project is adjacent to the existing Wilshire/Highland bus station and approximately 0.25 miles away from the future Wilshire/La Brea Purple Metro Line Station. The Purple Line is expected to open the new section from Koreatown to Miracle Mile, which includes the Wilshire/La Brea station, in 2023 when the proposed project is still under construction. As a result, future residents and employees at the proposed project site will have access to a major transit stop which will promote transit use and reduce the vehicle trips to and from the project site. Additionally, the proposed project will include on-site bicycle parking to further promote other forms of transportation. Furthermore, the proposed project will be constructed consistent with CALGreen Building Code and Title 24 which will reduce on-site GHG emissions from area and energy sources. For these reasons, the Proposed Project would have a less than significant impact in regard to GHG emissions.

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IMPACT 
SCIENCES

ATTACHMENT A

CalEEMod Inputs and Output Files

Wilshire Highland - Los Angeles-South Coast County, Annual

Wilshire Highland
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	354.00	Space	0.00	141,600.00	0
Apartments Mid Rise	243.00	Dwelling Unit	1.69	243,000.00	695
Strip Mall	10.90	1000sqft	0.00	10,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Wilshire Highland - Los Angeles-South Coast County, Annual

Project Characteristics -

Land Use - Project site is 1.685 acres.

Construction Phase - Construction schedule provided by applicant.

Off-road Equipment -

Off-road Equipment - Construction equipment provided by applicant.

Off-road Equipment - Construction equipment provided by applicant.

Off-road Equipment - Construction equipment provided by applicant.

Off-road Equipment -

Trips and VMT - Assume a 14 cubic yard hauling truck will be used during the grading phase of construction.

Demolition - demolition of existing structure and surface parking lots.

Grading -

Architectural Coating - According to the Project Applicant, only 65% of the exterior building will be painted.

Vehicle Trips - According to the LA DOT MOU, the site will generate a 1,666 trips per day (1,701 trips per day minus 30 for internal capture and minus an additional 5 for pass by credit)

Woodstoves - SCAQMD Rule 445 restricts wood burning devices in building constructed after 2009, see: <http://www.aqmd.gov/docs/default-source/rule-book/support-documents/rule-445/detailed-rule-445-information.pdf>

Area Coating - According to the Applicant, only 65% of building exterior will be painted.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 for fugitive dust emissions.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	164,025.00	106,616.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	200.00	587.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	4.00	66.00
tblConstructionPhase	NumDays	10.00	45.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00

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tblFireplaces	NumberWood	12.15	0.00
tblGrading	MaterialExported	0.00	65,095.00
tblLandUse	LotAcreage	3.19	0.00
tblLandUse	LotAcreage	6.39	1.69
tblLandUse	LotAcreage	0.25	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblTripsAndVMT	HaulingTripNumber	8,137.00	9,300.00
tblVehicleTrips	ST_TR	6.39	5.25
tblVehicleTrips	ST_TR	42.04	35.89
tblVehicleTrips	SU_TR	5.86	5.25
tblVehicleTrips	SU_TR	20.43	35.89
tblVehicleTrips	WD_TR	6.65	5.25
tblVehicleTrips	WD_TR	44.32	35.89
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1806	2.5276	1.5195	7.0800e-003	0.3563	0.0482	0.4045	0.0767	0.0451	0.1218	0.0000	668.0929	668.0929	0.0730	0.0000	669.9184
2023	0.2395	1.6494	2.1407	6.8600e-003	0.3808	0.0515	0.4323	0.1021	0.0474	0.1495	0.0000	625.8429	625.8429	0.0756	0.0000	627.7316
2024	1.0159	1.7267	2.3537	7.3100e-003	0.3988	0.0552	0.4540	0.1069	0.0509	0.1578	0.0000	665.6365	665.6365	0.0844	0.0000	667.7468
Maximum	1.0159	2.5276	2.3537	7.3100e-003	0.3988	0.0552	0.4540	0.1069	0.0509	0.1578	0.0000	668.0929	668.0929	0.0844	0.0000	669.9184

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1806	2.5276	1.5195	7.0800e-003	0.2590	0.0482	0.3072	0.0624	0.0451	0.1075	0.0000	668.0927	668.0927	0.0730	0.0000	669.9183
2023	0.2395	1.6494	2.1407	6.8600e-003	0.3808	0.0515	0.4323	0.1021	0.0474	0.1495	0.0000	625.8427	625.8427	0.0756	0.0000	627.7314
2024	1.0159	1.7267	2.3537	7.3100e-003	0.3988	0.0552	0.4540	0.1069	0.0509	0.1578	0.0000	665.6362	665.6362	0.0844	0.0000	667.7466
Maximum	1.0159	2.5276	2.3537	7.3100e-003	0.3988	0.0552	0.4540	0.1069	0.0509	0.1578	0.0000	668.0927	668.0927	0.0844	0.0000	669.9183

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	8.57	0.00	7.54	4.99	0.00	3.33	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2022	8-31-2022	1.5739	1.5739
2	9-1-2022	11-30-2022	0.8805	0.8805
3	12-1-2022	2-28-2023	0.4930	0.4930
4	3-1-2023	5-31-2023	0.4750	0.4750
5	6-1-2023	8-31-2023	0.4733	0.4733
6	9-1-2023	11-30-2023	0.4716	0.4716
7	12-1-2023	2-29-2024	0.4551	0.4551
8	3-1-2024	5-31-2024	0.4474	0.4474
9	6-1-2024	8-31-2024	1.3648	1.3648
10	9-1-2024	9-30-2024	0.1454	0.1454
		Highest	1.5739	1.5739

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2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0903	0.0717	2.5265	4.1000e-004		0.0174	0.0174		0.0174	0.0174	0.0000	53.7029	53.7029	4.8900e-003	9.1000e-004	54.0962
Energy	0.0122	0.1041	0.0447	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	1,200.5477	1,200.5477	0.0278	7.4900e-003	1,203.4741
Mobile	0.4057	1.9191	5.3438	0.0216	1.9366	0.0165	1.9531	0.5190	0.0153	0.5343	0.0000	1,999.2745	1,999.2745	0.0937	0.0000	2,001.6160
Waste						0.0000	0.0000		0.0000	0.0000	25.0146	0.0000	25.0146	1.4783	0.0000	61.9726
Water						0.0000	0.0000		0.0000	0.0000	5.2791	185.5001	190.7791	0.5466	0.0137	208.5292
Total	1.5082	2.0949	7.9149	0.0227	1.9366	0.0423	1.9789	0.5190	0.0411	0.5601	30.2936	3,439.0251	3,469.3187	2.1513	0.0221	3,529.6880

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0903	0.0717	2.5265	4.1000e-004		0.0174	0.0174		0.0174	0.0174	0.0000	53.7029	53.7029	4.8900e-003	9.1000e-004	54.0962
Energy	0.0122	0.1041	0.0447	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	1,200.5477	1,200.5477	0.0278	7.4900e-003	1,203.4741
Mobile	0.4057	1.9191	5.3438	0.0216	1.9366	0.0165	1.9531	0.5190	0.0153	0.5343	0.0000	1,999.2745	1,999.2745	0.0937	0.0000	2,001.6160
Waste						0.0000	0.0000		0.0000	0.0000	25.0146	0.0000	25.0146	1.4783	0.0000	61.9726
Water						0.0000	0.0000		0.0000	0.0000	5.2791	185.5001	190.7791	0.5466	0.0137	208.5292
Total	1.5082	2.0949	7.9149	0.0227	1.9366	0.0423	1.9789	0.5190	0.0411	0.5601	30.2936	3,439.0251	3,469.3187	2.1513	0.0221	3,529.6880

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/30/2022	5	22	
2	Grading	Grading	7/1/2022	9/30/2022	5	66	
3	Building Construction	Building Construction	10/3/2022	12/31/2024	5	587	
4	Paving	Paving	7/1/2024	8/30/2024	5	45	
5	Architectural Coating	Architectural Coating	7/1/2024	8/30/2024	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 33

Acres of Paving: 0

Residential Indoor: 492,075; Residential Outdoor: 106,616; Non-Residential Indoor: 16,350; Non-Residential Outdoor: 5,450; Striped Parking Area: 8,496 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	3	8.00	81	0.73
Demolition	Crawler Tractors	1	8.00	212	0.43
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Signal Boards	4	8.00	6	0.82
Demolition	Skid Steer Loaders	1	8.00	65	0.37
Demolition	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	1	8.00	212	0.43
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	6.00	187	0.41
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Grading	Signal Boards	4	8.00	6	0.82
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	2	6.00	231	0.29
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	11	28.00	0.00	1,279.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	9,300.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	238.00	51.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1384	0.0000	0.1384	0.0210	0.0000	0.0210	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0319	0.3008	0.2501	5.0000e-004		0.0140	0.0140		0.0133	0.0133	0.0000	42.5279	42.5279	8.5500e-003	0.0000	42.7417
Total	0.0319	0.3008	0.2501	5.0000e-004	0.1384	0.0140	0.1524	0.0210	0.0133	0.0343	0.0000	42.5279	42.5279	8.5500e-003	0.0000	42.7417

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3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.1300e-003	0.1643	0.0408	4.9000e-004	0.0110	4.6000e-004	0.0115	3.0200e-003	4.4000e-004	3.4600e-003	0.0000	48.1691	48.1691	3.3300e-003	0.0000	48.2524
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.3000e-004	0.0107	3.0000e-005	3.3800e-003	3.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.9388	2.9388	8.0000e-005	0.0000	2.9408
Total	6.3700e-003	0.1652	0.0516	5.2000e-004	0.0144	4.9000e-004	0.0149	3.9200e-003	4.6000e-004	4.3800e-003	0.0000	51.1079	51.1079	3.4100e-003	0.0000	51.1932

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0540	0.0000	0.0540	8.1700e-003	0.0000	8.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0319	0.3008	0.2501	5.0000e-004		0.0140	0.0140		0.0133	0.0133	0.0000	42.5278	42.5278	8.5500e-003	0.0000	42.7416
Total	0.0319	0.3008	0.2501	5.0000e-004	0.0540	0.0140	0.0680	8.1700e-003	0.0133	0.0215	0.0000	42.5278	42.5278	8.5500e-003	0.0000	42.7416

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3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.1300e-003	0.1643	0.0408	4.9000e-004	0.0110	4.6000e-004	0.0115	3.0200e-003	4.4000e-004	3.4600e-003	0.0000	48.1691	48.1691	3.3300e-003	0.0000	48.2524
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.3000e-004	0.0107	3.0000e-005	3.3800e-003	3.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.9388	2.9388	8.0000e-005	0.0000	2.9408
Total	6.3700e-003	0.1652	0.0516	5.2000e-004	0.0144	4.9000e-004	0.0149	3.9200e-003	4.6000e-004	4.3800e-003	0.0000	51.1079	51.1079	3.4100e-003	0.0000	51.1932

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0212	0.0000	0.0212	2.4500e-003	0.0000	2.4500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0375	0.3834	0.3339	6.8000e-004		0.0159	0.0159		0.0148	0.0148	0.0000	57.4875	57.4875	0.0173	0.0000	57.9199
Total	0.0375	0.3834	0.3339	6.8000e-004	0.0212	0.0159	0.0371	2.4500e-003	0.0148	0.0172	0.0000	57.4875	57.4875	0.0173	0.0000	57.9199

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3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0373	1.1947	0.2968	3.5500e-003	0.0799	3.3500e-003	0.0833	0.0220	3.2000e-003	0.0252	0.0000	350.2525	350.2525	0.0242	0.0000	350.8581
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6600e-003	2.0000e-003	0.0230	7.0000e-005	7.2300e-003	6.0000e-005	7.2900e-003	1.9200e-003	5.0000e-005	1.9700e-003	0.0000	6.2974	6.2974	1.7000e-004	0.0000	6.3018
Total	0.0399	1.1967	0.3198	3.6200e-003	0.0872	3.4100e-003	0.0906	0.0239	3.2500e-003	0.0271	0.0000	356.5499	356.5499	0.0244	0.0000	357.1598

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.2600e-003	0.0000	8.2600e-003	9.5000e-004	0.0000	9.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0375	0.3834	0.3339	6.8000e-004		0.0159	0.0159		0.0148	0.0148	0.0000	57.4875	57.4875	0.0173	0.0000	57.9199
Total	0.0375	0.3834	0.3339	6.8000e-004	8.2600e-003	0.0159	0.0242	9.5000e-004	0.0148	0.0157	0.0000	57.4875	57.4875	0.0173	0.0000	57.9199

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3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0373	1.1947	0.2968	3.5500e-003	0.0799	3.3500e-003	0.0833	0.0220	3.2000e-003	0.0252	0.0000	350.2525	350.2525	0.0242	0.0000	350.8581
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6600e-003	2.0000e-003	0.0230	7.0000e-005	7.2300e-003	6.0000e-005	7.2900e-003	1.9200e-003	5.0000e-005	1.9700e-003	0.0000	6.2974	6.2974	1.7000e-004	0.0000	6.3018
Total	0.0399	1.1967	0.3198	3.6200e-003	0.0872	3.4100e-003	0.0906	0.0239	3.2500e-003	0.0271	0.0000	356.5499	356.5499	0.0244	0.0000	357.1598

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0288	0.3026	0.2526	5.3000e-004		0.0135	0.0135		0.0124	0.0124	0.0000	46.1178	46.1178	0.0149	0.0000	46.4907
Total	0.0288	0.3026	0.2526	5.3000e-004		0.0135	0.0135		0.0124	0.0124	0.0000	46.1178	46.1178	0.0149	0.0000	46.4907

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3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.8300e-003	0.1554	0.0420	4.2000e-004	0.0104	2.9000e-004	0.0107	3.0100e-003	2.8000e-004	3.2900e-003	0.0000	40.4980	40.4980	2.4200e-003	0.0000	40.5584
Worker	0.0312	0.0234	0.2695	8.2000e-004	0.0848	6.8000e-004	0.0854	0.0225	6.2000e-004	0.0231	0.0000	73.8039	73.8039	2.0300e-003	0.0000	73.8547
Total	0.0360	0.1788	0.3115	1.2400e-003	0.0952	9.7000e-004	0.0962	0.0255	9.0000e-004	0.0264	0.0000	114.3018	114.3018	4.4500e-003	0.0000	114.4131

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0288	0.3026	0.2526	5.3000e-004		0.0135	0.0135		0.0124	0.0124	0.0000	46.1178	46.1178	0.0149	0.0000	46.4906
Total	0.0288	0.3026	0.2526	5.3000e-004		0.0135	0.0135		0.0124	0.0124	0.0000	46.1178	46.1178	0.0149	0.0000	46.4906

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3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.8300e-003	0.1554	0.0420	4.2000e-004	0.0104	2.9000e-004	0.0107	3.0100e-003	2.8000e-004	3.2900e-003	0.0000	40.4980	40.4980	2.4200e-003	0.0000	40.5584
Worker	0.0312	0.0234	0.2695	8.2000e-004	0.0848	6.8000e-004	0.0854	0.0225	6.2000e-004	0.0231	0.0000	73.8039	73.8039	2.0300e-003	0.0000	73.8547
Total	0.0360	0.1788	0.3115	1.2400e-003	0.0952	9.7000e-004	0.0962	0.0255	9.0000e-004	0.0264	0.0000	114.3018	114.3018	4.4500e-003	0.0000	114.4131

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1078	1.0951	0.9988	2.1000e-003		0.0483	0.0483		0.0445	0.0445	0.0000	184.5098	184.5098	0.0597	0.0000	186.0016
Total	0.1078	1.0951	0.9988	2.1000e-003		0.0483	0.0483		0.0445	0.0445	0.0000	184.5098	184.5098	0.0597	0.0000	186.0016

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3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0144	0.4697	0.1506	1.6100e-003	0.0418	5.5000e-004	0.0423	0.0121	5.2000e-004	0.0126	0.0000	156.9205	156.9205	8.5500e-003	0.0000	157.1342
Worker	0.1174	0.0847	0.9913	3.1500e-003	0.3390	2.6300e-003	0.3417	0.0901	2.4200e-003	0.0925	0.0000	284.4127	284.4127	7.3200e-003	0.0000	284.5958
Total	0.1317	0.5543	1.1419	4.7600e-003	0.3808	3.1800e-003	0.3840	0.1021	2.9400e-003	0.1051	0.0000	441.3332	441.3332	0.0159	0.0000	441.7300

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1078	1.0951	0.9988	2.1000e-003		0.0483	0.0483		0.0445	0.0445	0.0000	184.5095	184.5095	0.0597	0.0000	186.0014
Total	0.1078	1.0951	0.9988	2.1000e-003		0.0483	0.0483		0.0445	0.0445	0.0000	184.5095	184.5095	0.0597	0.0000	186.0014

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3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0144	0.4697	0.1506	1.6100e-003	0.0418	5.5000e-004	0.0423	0.0121	5.2000e-004	0.0126	0.0000	156.9205	156.9205	8.5500e-003	0.0000	157.1342
Worker	0.1174	0.0847	0.9913	3.1500e-003	0.3390	2.6300e-003	0.3417	0.0901	2.4200e-003	0.0925	0.0000	284.4127	284.4127	7.3200e-003	0.0000	284.5958
Total	0.1317	0.5543	1.1419	4.7600e-003	0.3808	3.1800e-003	0.3840	0.1021	2.9400e-003	0.1051	0.0000	441.3332	441.3332	0.0159	0.0000	441.7300

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1029	1.0147	0.9961	2.1200e-003		0.0442	0.0442		0.0407	0.0407	0.0000	185.9629	185.9629	0.0601	0.0000	187.4665
Total	0.1029	1.0147	0.9961	2.1200e-003		0.0442	0.0442		0.0407	0.0407	0.0000	185.9629	185.9629	0.0601	0.0000	187.4665

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3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0141	0.4715	0.1471	1.6200e-003	0.0421	5.4000e-004	0.0426	0.0122	5.2000e-004	0.0127	0.0000	157.4976	157.4976	8.4900e-003	0.0000	157.7098
Worker	0.1120	0.0778	0.9303	3.0700e-003	0.3417	2.6100e-003	0.3443	0.0907	2.4000e-003	0.0932	0.0000	277.7142	277.7142	6.7600e-003	0.0000	277.8832
Total	0.1262	0.5493	1.0774	4.6900e-003	0.3837	3.1500e-003	0.3869	0.1029	2.9200e-003	0.1058	0.0000	435.2117	435.2117	0.0153	0.0000	435.5930

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1029	1.0147	0.9961	2.1200e-003		0.0442	0.0442		0.0407	0.0407	0.0000	185.9627	185.9627	0.0601	0.0000	187.4663
Total	0.1029	1.0147	0.9961	2.1200e-003		0.0442	0.0442		0.0407	0.0407	0.0000	185.9627	185.9627	0.0601	0.0000	187.4663

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3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0141	0.4715	0.1471	1.6200e-003	0.0421	5.4000e-004	0.0426	0.0122	5.2000e-004	0.0127	0.0000	157.4976	157.4976	8.4900e-003	0.0000	157.7098
Worker	0.1120	0.0778	0.9303	3.0700e-003	0.3417	2.6100e-003	0.3443	0.0907	2.4000e-003	0.0932	0.0000	277.7142	277.7142	6.7600e-003	0.0000	277.8832
Total	0.1262	0.5493	1.0774	4.6900e-003	0.3837	3.1500e-003	0.3869	0.1029	2.9200e-003	0.1058	0.0000	435.2117	435.2117	0.0153	0.0000	435.5930

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0139	0.1319	0.1986	3.0000e-004		6.3200e-003	6.3200e-003		5.8400e-003	5.8400e-003	0.0000	26.4917	26.4917	8.4000e-003	0.0000	26.7016
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0139	0.1319	0.1986	3.0000e-004		6.3200e-003	6.3200e-003		5.8400e-003	5.8400e-003	0.0000	26.4917	26.4917	8.4000e-003	0.0000	26.7016

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3.5 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0500e-003	7.3000e-004	8.7300e-003	3.0000e-005	3.2100e-003	2.0000e-005	3.2300e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.6054	2.6054	6.0000e-005	0.0000	2.6070
Total	1.0500e-003	7.3000e-004	8.7300e-003	3.0000e-005	3.2100e-003	2.0000e-005	3.2300e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.6054	2.6054	6.0000e-005	0.0000	2.6070

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0139	0.1319	0.1986	3.0000e-004		6.3200e-003	6.3200e-003		5.8400e-003	5.8400e-003	0.0000	26.4916	26.4916	8.4000e-003	0.0000	26.7016
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0139	0.1319	0.1986	3.0000e-004		6.3200e-003	6.3200e-003		5.8400e-003	5.8400e-003	0.0000	26.4916	26.4916	8.4000e-003	0.0000	26.7016

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3.5 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0500e-003	7.3000e-004	8.7300e-003	3.0000e-005	3.2100e-003	2.0000e-005	3.2300e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.6054	2.6054	6.0000e-005	0.0000	2.6070
Total	1.0500e-003	7.3000e-004	8.7300e-003	3.0000e-005	3.2100e-003	2.0000e-005	3.2300e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.6054	2.6054	6.0000e-005	0.0000	2.6070

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7639					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0700e-003	0.0274	0.0407	7.0000e-005		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529
Total	0.7680	0.0274	0.0407	7.0000e-005		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529

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3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8800e-003	2.7000e-003	0.0322	1.1000e-004	0.0118	9.0000e-005	0.0119	3.1400e-003	8.0000e-005	3.2300e-003	0.0000	9.6200	9.6200	2.3000e-004	0.0000	9.6258
Total	3.8800e-003	2.7000e-003	0.0322	1.1000e-004	0.0118	9.0000e-005	0.0119	3.1400e-003	8.0000e-005	3.2300e-003	0.0000	9.6200	9.6200	2.3000e-004	0.0000	9.6258

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7639					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0700e-003	0.0274	0.0407	7.0000e-005		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529
Total	0.7680	0.0274	0.0407	7.0000e-005		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	5.7448	5.7448	3.2000e-004	0.0000	5.7529

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3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8800e-003	2.7000e-003	0.0322	1.1000e-004	0.0118	9.0000e-005	0.0119	3.1400e-003	8.0000e-005	3.2300e-003	0.0000	9.6200	9.6200	2.3000e-004	0.0000	9.6258
Total	3.8800e-003	2.7000e-003	0.0322	1.1000e-004	0.0118	9.0000e-005	0.0119	3.1400e-003	8.0000e-005	3.2300e-003	0.0000	9.6200	9.6200	2.3000e-004	0.0000	9.6258

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4057	1.9191	5.3438	0.0216	1.9366	0.0165	1.9531	0.5190	0.0153	0.5343	0.0000	1,999.2745	1,999.2745	0.0937	0.0000	2,001.6160
Unmitigated	0.4057	1.9191	5.3438	0.0216	1.9366	0.0165	1.9531	0.5190	0.0153	0.5343	0.0000	1,999.2745	1,999.2745	0.0937	0.0000	2,001.6160

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,275.75	1,275.75	1275.75	4,359,432	4,359,432
Enclosed Parking with Elevator	0.00	0.00	0.00		
Strip Mall	391.20	391.20	391.20	744,297	744,297
Total	1,666.95	1,666.95	1,666.95	5,103,729	5,103,729

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841
Enclosed Parking with Elevator	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841
Strip Mall	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,080.0740	1,080.0740	0.0255	5.2800e-003	1,082.2845
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,080.0740	1,080.0740	0.0255	5.2800e-003	1,082.2845
NaturalGas Mitigated	0.0122	0.1041	0.0447	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	120.4737	120.4737	2.3100e-003	2.2100e-003	121.1896
NaturalGas Unmitigated	0.0122	0.1041	0.0447	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	120.4737	120.4737	2.3100e-003	2.2100e-003	121.1896

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.23972e+006	0.0121	0.1032	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003	0.0000	119.5198	119.5198	2.2900e-003	2.1900e-003	120.2300
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	17876	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9539	0.9539	2.0000e-005	2.0000e-005	0.9596
Total		0.0122	0.1041	0.0447	6.7000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	120.4737	120.4737	2.3100e-003	2.2100e-003	121.1896

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.23972e+006	0.0121	0.1032	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003	0.0000	119.5198	119.5198	2.2900e-003	2.1900e-003	120.2300
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	17876	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9539	0.9539	2.0000e-005	2.0000e-005	0.9596
Total		0.0122	0.1041	0.0447	6.7000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	120.4737	120.4737	2.3100e-003	2.2100e-003	121.1896

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	962299	535.9638	0.0127	2.6200e-003	537.0607
Enclosed Parking with Elevator	829776	462.1533	0.0109	2.2600e-003	463.0992
Strip Mall	147150	81.9569	1.9400e-003	4.0000e-004	82.1246
Total		1,080.0740	0.0255	5.2800e-003	1,082.2845

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	962299	535.9638	0.0127	2.6200e-003	537.0607
Enclosed Parking with Elevator	829776	462.1533	0.0109	2.2600e-003	463.0992
Strip Mall	147150	81.9569	1.9400e-003	4.0000e-004	82.1246
Total		1,080.0740	0.0255	5.2800e-003	1,082.2845

6.0 Area Detail

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0903	0.0717	2.5265	4.1000e-004		0.0174	0.0174		0.0174	0.0174	0.0000	53.7029	53.7029	4.8900e-003	9.1000e-004	54.0962
Unmitigated	1.0903	0.0717	2.5265	4.1000e-004		0.0174	0.0174		0.0174	0.0174	0.0000	53.7029	53.7029	4.8900e-003	9.1000e-004	54.0962

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0831					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9266					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.0100e-003	0.0428	0.0182	2.7000e-004		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	49.6003	49.6003	9.5000e-004	9.1000e-004	49.8951
Landscaping	0.0756	0.0289	2.5083	1.3000e-004		0.0139	0.0139		0.0139	0.0139	0.0000	4.1025	4.1025	3.9400e-003	0.0000	4.2011
Total	1.0903	0.0717	2.5265	4.0000e-004		0.0174	0.0174		0.0174	0.0174	0.0000	53.7029	53.7029	4.8900e-003	9.1000e-004	54.0962

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0831					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9266					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.0100e-003	0.0428	0.0182	2.7000e-004		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	49.6003	49.6003	9.5000e-004	9.1000e-004	49.8951
Landscaping	0.0756	0.0289	2.5083	1.3000e-004		0.0139	0.0139		0.0139	0.0139	0.0000	4.1025	4.1025	3.9400e-003	0.0000	4.2011
Total	1.0903	0.0717	2.5265	4.0000e-004		0.0174	0.0174		0.0174	0.0174	0.0000	53.7029	53.7029	4.8900e-003	9.1000e-004	54.0962

7.0 Water Detail

7.1 Mitigation Measures Water

Wilshire Highland - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	190.7791	0.5466	0.0137	208.5292
Unmitigated	190.7791	0.5466	0.0137	208.5292

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	15.8324 / 9.98131	181.6056	0.5201	0.0130	198.4946
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.80739 / 0.494852	9.1736	0.0265	6.6000e-004	10.0347
Total		190.7791	0.5466	0.0137	208.5292

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	15.8324 / 9.98131	181.6056	0.5201	0.0130	198.4946
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.80739 / 0.494852	9.1736	0.0265	6.6000e-004	10.0347
Total		190.7791	0.5466	0.0137	208.5292

8.0 Waste Detail

8.1 Mitigation Measures Waste

Wilshire Highland - Los Angeles-South Coast County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	25.0146	1.4783	0.0000	61.9726
Unmitigated	25.0146	1.4783	0.0000	61.9726

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	111.78	22.6903	1.3410	0.0000	56.2143
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	11.45	2.3243	0.1374	0.0000	5.7582
Total		25.0146	1.4783	0.0000	61.9726

Wilshire Highland - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	111.78	22.6903	1.3410	0.0000	56.2143
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	11.45	2.3243	0.1374	0.0000	5.7582
Total		25.0146	1.4783	0.0000	61.9726

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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Wilshire Highland - Los Angeles-South Coast County, Annual

11.0 Vegetation

Wilshire Highland - Los Angeles-South Coast County, Summer

Wilshire Highland
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	354.00	Space	0.00	141,600.00	0
Apartments Mid Rise	243.00	Dwelling Unit	1.69	243,000.00	695
Strip Mall	10.90	1000sqft	0.00	10,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Wilshire Highland - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use - Project site is 1.685 acres.

Construction Phase - Construction schedule provided by applicant.

Off-road Equipment -

Off-road Equipment - Construction equipment provided by applicant.

Off-road Equipment - Construction equipment provided by applicant.

Off-road Equipment - Construction equipment provided by applicant.

Off-road Equipment -

Trips and VMT - Assume a 14 cubic yard hauling truck will be used during the grading phase of construction.

Demolition - demolition of existing structure and surface parking lots.

Grading -

Architectural Coating - According to the Project Applicant, only 65% of the exterior building will be painted.

Vehicle Trips - According to the LA DOT MOU, the site will generate a 1,666 trips per day (1,701 trips per day minus 30 for internal capture and minus an additional 5 for pass by credit)

Woodstoves - SCAQMD Rule 445 restricts wood burning devices in building constructed after 2009, see: <http://www.aqmd.gov/docs/default-source/rule-book/support-documents/rule-445/detailed-rule-445-information.pdf>

Area Coating - According to the Applicant, only 65% of building exterior will be painted.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 for fugitive dust emissions.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	164,025.00	106,616.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	200.00	587.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	4.00	66.00
tblConstructionPhase	NumDays	10.00	45.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00

Wilshire Highland - Los Angeles-South Coast County, Summer

tblFireplaces	NumberWood	12.15	0.00
tblGrading	MaterialExported	0.00	65,095.00
tblLandUse	LotAcreage	3.19	0.00
tblLandUse	LotAcreage	6.39	1.69
tblLandUse	LotAcreage	0.25	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblTripsAndVMT	HaulingTripNumber	8,137.00	9,300.00
tblVehicleTrips	ST_TR	6.39	5.25
tblVehicleTrips	ST_TR	42.04	35.89
tblVehicleTrips	SU_TR	5.86	5.25
tblVehicleTrips	SU_TR	20.43	35.89
tblVehicleTrips	WD_TR	6.65	5.25
tblVehicleTrips	WD_TR	44.32	35.89
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Wilshire Highland - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.4773	46.7832	27.3970	0.1313	13.9122	1.3150	15.2271	2.2668	1.2518	3.5186	0.0000	13,926.14 90	13,926.14 90	1.3811	0.0000	13,960.67 62
2023	1.8347	12.5696	16.9337	0.0540	2.9868	0.3960	3.3828	0.7995	0.3645	1.1641	0.0000	5,429.631 9	5,429.631 9	0.6417	0.0000	5,445.675 4
2024	36.7095	19.0408	28.8504	0.0760	3.6687	0.7087	4.3774	0.9804	0.6579	1.6383	0.0000	7,551.362 1	7,551.362 1	1.0780	0.0000	7,578.313 1
Maximum	36.7095	46.7832	28.8504	0.1313	13.9122	1.3150	15.2271	2.2668	1.2518	3.5186	0.0000	13,926.14 90	13,926.14 90	1.3811	0.0000	13,960.67 62

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.4773	46.7832	27.3970	0.1313	6.2368	1.3150	7.5517	1.1047	1.2518	2.3565	0.0000	13,926.14 90	13,926.14 90	1.3811	0.0000	13,960.67 62
2023	1.8347	12.5696	16.9337	0.0540	2.9868	0.3960	3.3828	0.7995	0.3645	1.1641	0.0000	5,429.631 9	5,429.631 9	0.6417	0.0000	5,445.675 4
2024	36.7095	19.0408	28.8504	0.0760	3.6687	0.7087	4.3774	0.9804	0.6579	1.6383	0.0000	7,551.362 1	7,551.362 1	1.0780	0.0000	7,578.313 1
Maximum	36.7095	46.7832	28.8504	0.1313	6.2368	1.3150	7.5517	1.1047	1.2518	2.3565	0.0000	13,926.14 90	13,926.14 90	1.3811	0.0000	13,960.67 62

Wilshire Highland - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	37.32	0.00	33.39	28.72	0.00	18.39	0.00	0.00	0.00	0.00	0.00	0.00

Wilshire Highland - Los Angeles-South Coast County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5382	3.6573	21.5240	0.0229		0.3883	0.3883		0.3883	0.3883	0.0000	4,410.178 1	4,410.178 1	0.1186	0.0802	4,437.040 0
Energy	0.0667	0.5703	0.2447	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.6688	727.6688	0.0140	0.0133	731.9930
Mobile	2.3595	10.1630	30.4902	0.1229	10.8503	0.0907	10.9410	2.9031	0.0842	2.9873		12,536.24 52	12,536.24 52	0.5704		12,550.50 46
Total	8.9643	14.3906	52.2588	0.1494	10.8503	0.5251	11.3754	2.9031	0.5186	3.4217	0.0000	17,674.09 21	17,674.09 21	0.7029	0.0935	17,719.53 75

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5382	3.6573	21.5240	0.0229		0.3883	0.3883		0.3883	0.3883	0.0000	4,410.178 1	4,410.178 1	0.1186	0.0802	4,437.040 0
Energy	0.0667	0.5703	0.2447	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.6688	727.6688	0.0140	0.0133	731.9930
Mobile	2.3595	10.1630	30.4902	0.1229	10.8503	0.0907	10.9410	2.9031	0.0842	2.9873		12,536.24 52	12,536.24 52	0.5704		12,550.50 46
Total	8.9643	14.3906	52.2588	0.1494	10.8503	0.5251	11.3754	2.9031	0.5186	3.4217	0.0000	17,674.09 21	17,674.09 21	0.7029	0.0935	17,719.53 75

Wilshire Highland - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/30/2022	5	22	
2	Grading	Grading	7/1/2022	9/30/2022	5	66	
3	Building Construction	Building Construction	10/3/2022	12/31/2024	5	587	
4	Paving	Paving	7/1/2024	8/30/2024	5	45	
5	Architectural Coating	Architectural Coating	7/1/2024	8/30/2024	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 33

Acres of Paving: 0

Residential Indoor: 492,075; Residential Outdoor: 106,616; Non-Residential Indoor: 16,350; Non-Residential Outdoor: 5,450; Striped Parking Area: 8,496 (Architectural Coating – sqft)

OffRoad Equipment

Wilshire Highland - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	3	8.00	81	0.73
Demolition	Crawler Tractors	1	8.00	212	0.43
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Signal Boards	4	8.00	6	0.82
Demolition	Skid Steer Loaders	1	8.00	65	0.37
Demolition	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	1	8.00	212	0.43
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	6.00	187	0.41
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Grading	Signal Boards	4	8.00	6	0.82
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	2	6.00	231	0.29
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Wilshire Highland - Los Angeles-South Coast County, Summer

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	11	28.00	0.00	1,279.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	9,300.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	238.00	51.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.5826	0.0000	12.5826	1.9051	0.0000	1.9051			0.0000			0.0000
Off-Road	2.9036	27.3482	22.7372	0.0452		1.2709	1.2709		1.2098	1.2098		4,261.7227	4,261.7227	0.8570		4,283.1467
Total	2.9036	27.3482	22.7372	0.0452	12.5826	1.2709	13.8535	1.9051	1.2098	3.1149		4,261.7227	4,261.7227	0.8570		4,283.1467

Wilshire Highland - Los Angeles-South Coast County, Summer

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4613	14.4868	3.6193	0.0448	1.0166	0.0416	1.0582	0.2787	0.0398	0.3185		4,862.7287	4,862.7287	0.3289		4,870.9523
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1124	0.0745	1.0405	3.0900e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		307.6395	307.6395	8.4900e-003		307.8517
Total	0.5737	14.5613	4.6598	0.0479	1.3296	0.0440	1.3736	0.3617	0.0421	0.4037		5,170.3682	5,170.3682	0.3374		5,178.8040

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9072	0.0000	4.9072	0.7430	0.0000	0.7430			0.0000			0.0000
Off-Road	2.9036	27.3482	22.7372	0.0452		1.2709	1.2709		1.2098	1.2098	0.0000	4,261.7227	4,261.7227	0.8570		4,283.1466
Total	2.9036	27.3482	22.7372	0.0452	4.9072	1.2709	6.1781	0.7430	1.2098	1.9528	0.0000	4,261.7227	4,261.7227	0.8570		4,283.1466

Wilshire Highland - Los Angeles-South Coast County, Summer

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4613	14.4868	3.6193	0.0448	1.0166	0.0416	1.0582	0.2787	0.0398	0.3185		4,862.7287	4,862.7287	0.3289		4,870.9523
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1124	0.0745	1.0405	3.0900e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		307.6395	307.6395	8.4900e-003		307.8517
Total	0.5737	14.5613	4.6598	0.0479	1.3296	0.0440	1.3736	0.3617	0.0421	0.4037		5,170.3682	5,170.3682	0.3374		5,178.8040

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6418	0.0000	0.6418	0.0741	0.0000	0.0741			0.0000			0.0000
Off-Road	1.1375	11.6173	10.1194	0.0206		0.4819	0.4819		0.4478	0.4478		1,920.2775	1,920.2775	0.5777		1,934.7210
Total	1.1375	11.6173	10.1194	0.0206	0.6418	0.4819	1.1237	0.0741	0.4478	0.5219		1,920.2775	1,920.2775	0.5777		1,934.7210

Wilshire Highland - Los Angeles-South Coast County, Summer

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1181	35.1126	8.7725	0.1085	2.4640	0.1008	2.5648	0.6754	0.0964	0.7719		11,786.1290	11,786.1290	0.7973		11,806.0611
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	1.1984	35.1659	9.5157	0.1107	2.6875	0.1026	2.7901	0.7347	0.0981	0.8328		12,005.8715	12,005.8715	0.8033		12,025.9552

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2503	0.0000	0.2503	0.0289	0.0000	0.0289			0.0000			0.0000
Off-Road	1.1375	11.6173	10.1194	0.0206		0.4819	0.4819		0.4478	0.4478	0.0000	1,920.2775	1,920.2775	0.5777		1,934.7210
Total	1.1375	11.6173	10.1194	0.0206	0.2503	0.4819	0.7322	0.0289	0.4478	0.4767	0.0000	1,920.2775	1,920.2775	0.5777		1,934.7210

Wilshire Highland - Los Angeles-South Coast County, Summer

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1181	35.1126	8.7725	0.1085	2.4640	0.1008	2.5648	0.6754	0.0964	0.7719		11,786.1290	11,786.1290	0.7973		11,806.0611
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	1.1984	35.1659	9.5157	0.1107	2.6875	0.1026	2.7901	0.7347	0.0981	0.8328		12,005.8715	12,005.8715	0.8033		12,025.9552

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8854	9.3101	7.7721	0.0162		0.4141	0.4141		0.3810	0.3810		1,564.1900	1,564.1900	0.5059		1,576.8373
Total	0.8854	9.3101	7.7721	0.0162		0.4141	0.4141		0.3810	0.3810		1,564.1900	1,564.1900	0.5059		1,576.8373

Wilshire Highland - Los Angeles-South Coast County, Summer

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1455	4.7088	1.2248	0.0130	0.3265	8.8500e-003	0.3354	0.0940	8.4700e-003	0.1025		1,389.6780	1,389.6780	0.0798		1,391.6717
Worker	0.9556	0.6334	8.8441	0.0262	2.6603	0.0208	2.6811	0.7055	0.0192	0.7247		2,614.9353	2,614.9353	0.0722		2,616.7397
Total	1.1011	5.3423	10.0689	0.0392	2.9868	0.0297	3.0165	0.7995	0.0277	0.8272		4,004.6133	4,004.6133	0.1519		4,008.4114

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8854	9.3101	7.7721	0.0162		0.4141	0.4141		0.3810	0.3810	0.0000	1,564.1900	1,564.1900	0.5059		1,576.8373
Total	0.8854	9.3101	7.7721	0.0162		0.4141	0.4141		0.3810	0.3810	0.0000	1,564.1900	1,564.1900	0.5059		1,576.8373

Wilshire Highland - Los Angeles-South Coast County, Summer

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1455	4.7088	1.2248	0.0130	0.3265	8.8500e-003	0.3354	0.0940	8.4700e-003	0.1025		1,389.6780	1,389.6780	0.0798		1,391.6717
Worker	0.9556	0.6334	8.8441	0.0262	2.6603	0.0208	2.6811	0.7055	0.0192	0.7247		2,614.9353	2,614.9353	0.0722		2,616.7397
Total	1.1011	5.3423	10.0689	0.0392	2.9868	0.0297	3.0165	0.7995	0.0277	0.8272		4,004.6133	4,004.6133	0.1519		4,008.4114

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8293	8.4237	7.6829	0.0162		0.3717	0.3717		0.3419	0.3419		1,564.5169	1,564.5169	0.5060		1,577.1668
Total	0.8293	8.4237	7.6829	0.0162		0.3717	0.3717		0.3419	0.3419		1,564.5169	1,564.5169	0.5060		1,577.1668

Wilshire Highland - Los Angeles-South Coast County, Summer

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1079	3.5729	1.1061	0.0126	0.3265	4.1300e-003	0.3307	0.0940	3.9400e-003	0.0980		1,345.9279	1,345.9279	0.0707		1,347.6946
Worker	0.8974	0.5731	8.1447	0.0253	2.6603	0.0202	2.6805	0.7055	0.0186	0.7242		2,519.1871	2,519.1871	0.0651		2,520.8140
Total	1.0053	4.1460	9.2508	0.0378	2.9868	0.0244	3.0112	0.7995	0.0226	0.8221		3,865.1150	3,865.1150	0.1357		3,868.5086

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8293	8.4237	7.6829	0.0162		0.3717	0.3717		0.3419	0.3419	0.0000	1,564.5169	1,564.5169	0.5060		1,577.1668
Total	0.8293	8.4237	7.6829	0.0162		0.3717	0.3717		0.3419	0.3419	0.0000	1,564.5169	1,564.5169	0.5060		1,577.1668

Wilshire Highland - Los Angeles-South Coast County, Summer

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1079	3.5729	1.1061	0.0126	0.3265	4.1300e-003	0.3307	0.0940	3.9400e-003	0.0980		1,345.9279	1,345.9279	0.0707		1,347.6946
Worker	0.8974	0.5731	8.1447	0.0253	2.6603	0.0202	2.6805	0.7055	0.0186	0.7242		2,519.1871	2,519.1871	0.0651		2,520.8140
Total	1.0053	4.1460	9.2508	0.0378	2.9868	0.0244	3.0112	0.7995	0.0226	0.8221		3,865.1150	3,865.1150	0.1357		3,868.5086

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7858	7.7455	7.6038	0.0162		0.3377	0.3377		0.3106	0.3106		1,564.8014	1,564.8014	0.5061		1,577.4537
Total	0.7858	7.7455	7.6038	0.0162		0.3377	0.3377		0.3106	0.3106		1,564.8014	1,564.8014	0.5061		1,577.4537

Wilshire Highland - Los Angeles-South Coast County, Summer

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1053	3.5593	1.0724	0.0125	0.3265	4.0800e-003	0.3306	0.0940	3.9000e-003	0.0979		1,340.4658	1,340.4658	0.0697		1,342.2074
Worker	0.8489	0.5226	7.5927	0.0245	2.6603	0.0199	2.6802	0.7055	0.0184	0.7239		2,441.1143	2,441.1143	0.0597		2,442.6068
Total	0.9543	4.0819	8.6651	0.0370	2.9868	0.0240	3.0108	0.7995	0.0223	0.8218		3,781.5801	3,781.5801	0.1294		3,784.8141

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7858	7.7455	7.6038	0.0162		0.3377	0.3377		0.3106	0.3106	0.0000	1,564.8014	1,564.8014	0.5061		1,577.4537
Total	0.7858	7.7455	7.6038	0.0162		0.3377	0.3377		0.3106	0.3106	0.0000	1,564.8014	1,564.8014	0.5061		1,577.4537

Wilshire Highland - Los Angeles-South Coast County, Summer

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1053	3.5593	1.0724	0.0125	0.3265	4.0800e-003	0.3306	0.0940	3.9000e-003	0.0979		1,340.4658	1,340.4658	0.0697		1,342.2074
Worker	0.8489	0.5226	7.5927	0.0245	2.6603	0.0199	2.6802	0.7055	0.0184	0.7239		2,441.1143	2,441.1143	0.0597		2,442.6068
Total	0.9543	4.0819	8.6651	0.0370	2.9868	0.0240	3.0108	0.7995	0.0223	0.8218		3,781.5801	3,781.5801	0.1294		3,784.8141

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.8688	1,297.8688	0.4114		1,308.1547

Wilshire Highland - Los Angeles-South Coast County, Summer

3.5 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0464	0.0286	0.4147	1.3400e-003	0.1453	1.0900e-003	0.1464	0.0385	1.0000e-003	0.0395		133.3382	133.3382	3.2600e-003		133.4197
Total	0.0464	0.0286	0.4147	1.3400e-003	0.1453	1.0900e-003	0.1464	0.0385	1.0000e-003	0.0395		133.3382	133.3382	3.2600e-003		133.4197

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594	0.0000	1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594	0.0000	1,297.8688	1,297.8688	0.4114		1,308.1547

Wilshire Highland - Los Angeles-South Coast County, Summer

3.5 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0464	0.0286	0.4147	1.3400e-003	0.1453	1.0900e-003	0.1464	0.0385	1.0000e-003	0.0395		133.3382	133.3382	3.2600e-003		133.4197
Total	0.0464	0.0286	0.4147	1.3400e-003	0.1453	1.0900e-003	0.1464	0.0385	1.0000e-003	0.0395		133.3382	133.3382	3.2600e-003		133.4197

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	34.1338	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Wilshire Highland - Los Angeles-South Coast County, Summer

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1712	0.1054	1.5313	4.9400e-003	0.5365	4.0200e-003	0.5406	0.1423	3.7000e-003	0.1460		492.3256	492.3256	0.0120		492.6266
Total	0.1712	0.1054	1.5313	4.9400e-003	0.5365	4.0200e-003	0.5406	0.1423	3.7000e-003	0.1460		492.3256	492.3256	0.0120		492.6266

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	34.1338	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Wilshire Highland - Los Angeles-South Coast County, Summer

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.1712	0.1054	1.5313	4.9400e-003	0.5365	4.0200e-003	0.5406	0.1423	3.7000e-003	0.1460		492.3256	492.3256	0.0120			492.6266
Total	0.1712	0.1054	1.5313	4.9400e-003	0.5365	4.0200e-003	0.5406	0.1423	3.7000e-003	0.1460		492.3256	492.3256	0.0120			492.6266

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Wilshire Highland - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3595	10.1630	30.4902	0.1229	10.8503	0.0907	10.9410	2.9031	0.0842	2.9873		12,536.24 52	12,536.24 52	0.5704		12,550.50 46
Unmitigated	2.3595	10.1630	30.4902	0.1229	10.8503	0.0907	10.9410	2.9031	0.0842	2.9873		12,536.24 52	12,536.24 52	0.5704		12,550.50 46

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,275.75	1,275.75	1275.75	4,359,432	4,359,432
Enclosed Parking with Elevator	0.00	0.00	0.00		
Strip Mall	391.20	391.20	391.20	744,297	744,297
Total	1,666.95	1,666.95	1,666.95	5,103,729	5,103,729

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Wilshire Highland - Los Angeles-South Coast County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841
Enclosed Parking with Elevator	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841
Strip Mall	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0667	0.5703	0.2447	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.6688	727.6688	0.0140	0.0133	731.9930
NaturalGas Unmitigated	0.0667	0.5703	0.2447	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.6688	727.6688	0.0140	0.0133	731.9930

Wilshire Highland - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	6136.21	0.0662	0.5655	0.2406	3.6100e-003		0.0457	0.0457		0.0457	0.0457		721.9070	721.9070	0.0138	0.0132	726.1969
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	48.9753	5.3000e-004	4.8000e-003	4.0300e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004		5.7618	5.7618	1.1000e-004	1.1000e-004	5.7960
Total		0.0667	0.5703	0.2447	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.6688	727.6688	0.0140	0.0133	731.9930

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	6.13621	0.0662	0.5655	0.2406	3.6100e-003		0.0457	0.0457		0.0457	0.0457		721.9070	721.9070	0.0138	0.0132	726.1969
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0489753	5.3000e-004	4.8000e-003	4.0300e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004		5.7618	5.7618	1.1000e-004	1.1000e-004	5.7960
Total		0.0667	0.5703	0.2447	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.6688	727.6688	0.0140	0.0133	731.9930

6.0 Area Detail

Wilshire Highland - Los Angeles-South Coast County, Summer

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.5382	3.6573	21.5240	0.0229		0.3883	0.3883		0.3883	0.3883	0.0000	4,410.178 1	4,410.178 1	0.1186	0.0802	4,437.040 0
Unmitigated	6.5382	3.6573	21.5240	0.0229		0.3883	0.3883		0.3883	0.3883	0.0000	4,410.178 1	4,410.178 1	0.1186	0.0802	4,437.040 0

Wilshire Highland - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4551					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4010	3.4263	1.4580	0.0219		0.2770	0.2770		0.2770	0.2770	0.0000	4,374.0000	4,374.0000	0.0838	0.0802	4,399.9925
Landscaping	0.6048	0.2310	20.0660	1.0600e-003		0.1113	0.1113		0.1113	0.1113		36.1781	36.1781	0.0348		37.0475
Total	6.5382	3.6573	21.5240	0.0229		0.3883	0.3883		0.3883	0.3883	0.0000	4,410.1781	4,410.1781	0.1186	0.0802	4,437.0400

Wilshire Highland - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4551					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4010	3.4263	1.4580	0.0219		0.2770	0.2770		0.2770	0.2770	0.0000	4,374.0000	4,374.0000	0.0838	0.0802	4,399.9925
Landscaping	0.6048	0.2310	20.0660	1.0600e-003		0.1113	0.1113		0.1113	0.1113		36.1781	36.1781	0.0348		37.0475
Total	6.5382	3.6573	21.5240	0.0229		0.3883	0.3883		0.3883	0.3883	0.0000	4,410.1781	4,410.1781	0.1186	0.0802	4,437.0400

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Wilshire Highland - Los Angeles-South Coast County, Summer

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Wilshire Highland - Los Angeles-South Coast County, Winter

Wilshire Highland
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	354.00	Space	0.00	141,600.00	0
Apartments Mid Rise	243.00	Dwelling Unit	1.69	243,000.00	695
Strip Mall	10.90	1000sqft	0.00	10,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Wilshire Highland - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use - Project site is 1.685 acres.

Construction Phase - Construction schedule provided by applicant.

Off-road Equipment -

Off-road Equipment - Construction equipment provided by applicant.

Off-road Equipment - Construction equipment provided by applicant.

Off-road Equipment - Construction equipment provided by applicant.

Off-road Equipment -

Trips and VMT - Assume a 14 cubic yard hauling truck will be used during the grading phase of construction.

Demolition - demolition of existing structure and surface parking lots.

Grading -

Architectural Coating - According to the Project Applicant, only 65% of the exterior building will be painted.

Vehicle Trips - According to the LA DOT MOU, the site will generate a 1,666 trips per day (1,701 trips per day minus 30 for internal capture and minus an additional 5 for pass by credit)

Woodstoves - SCAQMD Rule 445 restricts wood burning devices in building constructed after 2009, see: <http://www.aqmd.gov/docs/default-source/rule-book/support-documents/rule-445/detailed-rule-445-information.pdf>

Area Coating - According to the Applicant, only 65% of building exterior will be painted.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 for fugitive dust emissions.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	164,025.00	106,616.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	200.00	587.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	4.00	66.00
tblConstructionPhase	NumDays	10.00	45.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00

Wilshire Highland - Los Angeles-South Coast County, Winter

tblFireplaces	NumberWood	12.15	0.00
tblGrading	MaterialExported	0.00	65,095.00
tblLandUse	LotAcreage	3.19	0.00
tblLandUse	LotAcreage	6.39	1.69
tblLandUse	LotAcreage	0.25	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblTripsAndVMT	HaulingTripNumber	8,137.00	9,300.00
tblVehicleTrips	ST_TR	6.39	5.25
tblVehicleTrips	ST_TR	42.04	35.89
tblVehicleTrips	SU_TR	5.86	5.25
tblVehicleTrips	SU_TR	20.43	35.89
tblVehicleTrips	WD_TR	6.65	5.25
tblVehicleTrips	WD_TR	44.32	35.89
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Wilshire Highland - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.5014	47.1899	27.5168	0.1293	13.9122	1.3156	15.2278	2.2668	1.2524	3.5192	0.0000	13,707.3363	13,707.3363	1.4079	0.0000	13,742.5342
2023	1.9470	12.6144	16.3074	0.0522	2.9868	0.3962	3.3830	0.7995	0.3647	1.1643	0.0000	5,246.0925	5,246.0925	0.6418	0.0000	5,262.1378
2024	36.8454	19.0951	28.0854	0.0738	3.6687	0.7089	4.3776	0.9804	0.6581	1.6385	0.0000	7,336.1740	7,336.1740	1.0773	0.0000	7,363.1060
Maximum	36.8454	47.1899	28.0854	0.1293	13.9122	1.3156	15.2278	2.2668	1.2524	3.5192	0.0000	13,707.3363	13,707.3363	1.4079	0.0000	13,742.5342

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.5014	47.1899	27.5168	0.1293	6.2368	1.3156	7.5524	1.1047	1.2524	2.3571	0.0000	13,707.3363	13,707.3363	1.4079	0.0000	13,742.5342
2023	1.9470	12.6144	16.3074	0.0522	2.9868	0.3962	3.3830	0.7995	0.3647	1.1643	0.0000	5,246.0925	5,246.0925	0.6418	0.0000	5,262.1378
2024	36.8454	19.0951	28.0854	0.0738	3.6687	0.7089	4.3776	0.9804	0.6581	1.6385	0.0000	7,336.1740	7,336.1740	1.0773	0.0000	7,363.1060
Maximum	36.8454	47.1899	28.0854	0.1293	6.2368	1.3156	7.5524	1.1047	1.2524	2.3571	0.0000	13,707.3363	13,707.3363	1.4079	0.0000	13,742.5342

Wilshire Highland - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	37.32	0.00	33.39	28.72	0.00	18.38	0.00	0.00	0.00	0.00	0.00	0.00

Wilshire Highland - Los Angeles-South Coast County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5382	3.6573	21.5240	0.0229		0.3883	0.3883		0.3883	0.3883	0.0000	4,410.178 1	4,410.178 1	0.1186	0.0802	4,437.040 0
Energy	0.0667	0.5703	0.2447	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.6688	727.6688	0.0140	0.0133	731.9930
Mobile	2.2841	10.3704	28.9490	0.1170	10.8503	0.0911	10.9414	2.9031	0.0846	2.9877		11,940.10 10	11,940.10 10	0.5699		11,954.34 92
Total	8.8890	14.5980	50.7177	0.1435	10.8503	0.5254	11.3758	2.9031	0.5190	3.4221	0.0000	17,077.94 79	17,077.94 79	0.7025	0.0935	17,123.38 21

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5382	3.6573	21.5240	0.0229		0.3883	0.3883		0.3883	0.3883	0.0000	4,410.178 1	4,410.178 1	0.1186	0.0802	4,437.040 0
Energy	0.0667	0.5703	0.2447	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.6688	727.6688	0.0140	0.0133	731.9930
Mobile	2.2841	10.3704	28.9490	0.1170	10.8503	0.0911	10.9414	2.9031	0.0846	2.9877		11,940.10 10	11,940.10 10	0.5699		11,954.34 92
Total	8.8890	14.5980	50.7177	0.1435	10.8503	0.5254	11.3758	2.9031	0.5190	3.4221	0.0000	17,077.94 79	17,077.94 79	0.7025	0.0935	17,123.38 21

Wilshire Highland - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/30/2022	5	22	
2	Grading	Grading	7/1/2022	9/30/2022	5	66	
3	Building Construction	Building Construction	10/3/2022	12/31/2024	5	587	
4	Paving	Paving	7/1/2024	8/30/2024	5	45	
5	Architectural Coating	Architectural Coating	7/1/2024	8/30/2024	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 33

Acres of Paving: 0

Residential Indoor: 492,075; Residential Outdoor: 106,616; Non-Residential Indoor: 16,350; Non-Residential Outdoor: 5,450; Striped Parking Area: 8,496 (Architectural Coating – sqft)

OffRoad Equipment

Wilshire Highland - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	3	8.00	81	0.73
Demolition	Crawler Tractors	1	8.00	212	0.43
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Signal Boards	4	8.00	6	0.82
Demolition	Skid Steer Loaders	1	8.00	65	0.37
Demolition	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	1	8.00	212	0.43
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	6.00	187	0.41
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Grading	Signal Boards	4	8.00	6	0.82
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	2	6.00	231	0.29
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Wilshire Highland - Los Angeles-South Coast County, Winter

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	11	28.00	0.00	1,279.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	9,300.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	238.00	51.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.5826	0.0000	12.5826	1.9051	0.0000	1.9051			0.0000			0.0000
Off-Road	2.9036	27.3482	22.7372	0.0452		1.2709	1.2709		1.2098	1.2098		4,261.7227	4,261.7227	0.8570		4,283.1467
Total	2.9036	27.3482	22.7372	0.0452	12.5826	1.2709	13.8535	1.9051	1.2098	3.1149		4,261.7227	4,261.7227	0.8570		4,283.1467

Wilshire Highland - Los Angeles-South Coast County, Winter

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4724	14.6523	3.8299	0.0440	1.0166	0.0422	1.0588	0.2787	0.0404	0.3191		4,777.7437	4,777.7437	0.3402		4,786.2478
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1254	0.0825	0.9497	2.9100e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		289.6795	289.6795	7.9800e-003		289.8789
Total	0.5978	14.7347	4.7796	0.0469	1.3296	0.0447	1.3742	0.3617	0.0427	0.4043		5,067.4231	5,067.4231	0.3481		5,076.1266

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9072	0.0000	4.9072	0.7430	0.0000	0.7430			0.0000			0.0000
Off-Road	2.9036	27.3482	22.7372	0.0452		1.2709	1.2709		1.2098	1.2098	0.0000	4,261.7227	4,261.7227	0.8570		4,283.1466
Total	2.9036	27.3482	22.7372	0.0452	4.9072	1.2709	6.1781	0.7430	1.2098	1.9528	0.0000	4,261.7227	4,261.7227	0.8570		4,283.1466

Wilshire Highland - Los Angeles-South Coast County, Winter

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4724	14.6523	3.8299	0.0440	1.0166	0.0422	1.0588	0.2787	0.0404	0.3191		4,777.7437	4,777.7437	0.3402		4,786.2478
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1254	0.0825	0.9497	2.9100e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		289.6795	289.6795	7.9800e-003		289.8789
Total	0.5978	14.7347	4.7796	0.0469	1.3296	0.0447	1.3742	0.3617	0.0427	0.4043		5,067.4231	5,067.4231	0.3481		5,076.1266

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6418	0.0000	0.6418	0.0741	0.0000	0.0741			0.0000			0.0000
Off-Road	1.1375	11.6173	10.1194	0.0206		0.4819	0.4819		0.4478	0.4478		1,920.2775	1,920.2775	0.5777		1,934.7210
Total	1.1375	11.6173	10.1194	0.0206	0.6418	0.4819	1.1237	0.0741	0.4478	0.5219		1,920.2775	1,920.2775	0.5777		1,934.7210

Wilshire Highland - Los Angeles-South Coast County, Winter

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1451	35.5137	9.2828	0.1066	2.4640	0.1024	2.5663	0.6754	0.0979	0.7734		11,580.1449	11,580.1449	0.8245		11,600.7569
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	1.2347	35.5726	9.9611	0.1087	2.6875	0.1041	2.7916	0.7347	0.0996	0.8343		11,787.0588	11,787.0588	0.8302		11,807.8132

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2503	0.0000	0.2503	0.0289	0.0000	0.0289			0.0000			0.0000
Off-Road	1.1375	11.6173	10.1194	0.0206		0.4819	0.4819		0.4478	0.4478	0.0000	1,920.2775	1,920.2775	0.5777		1,934.7210
Total	1.1375	11.6173	10.1194	0.0206	0.2503	0.4819	0.7322	0.0289	0.4478	0.4767	0.0000	1,920.2775	1,920.2775	0.5777		1,934.7210

Wilshire Highland - Los Angeles-South Coast County, Winter

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1451	35.5137	9.2828	0.1066	2.4640	0.1024	2.5663	0.6754	0.0979	0.7734		11,580.14 49	11,580.14 49	0.8245		11,600.75 69
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	1.2347	35.5726	9.9611	0.1087	2.6875	0.1041	2.7916	0.7347	0.0996	0.8343		11,787.05 88	11,787.05 88	0.8302		11,807.81 32

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8854	9.3101	7.7721	0.0162		0.4141	0.4141		0.3810	0.3810		1,564.190 0	1,564.190 0	0.5059		1,576.837 3
Total	0.8854	9.3101	7.7721	0.0162		0.4141	0.4141		0.3810	0.3810		1,564.190 0	1,564.190 0	0.5059		1,576.837 3

Wilshire Highland - Los Angeles-South Coast County, Winter

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1528	4.6960	1.3554	0.0126	0.3265	9.1400e-003	0.3357	0.0940	8.7400e-003	0.1028		1,351.3484	1,351.3484	0.0849		1,353.4716
Worker	1.0659	0.7010	8.0724	0.0247	2.6603	0.0208	2.6811	0.7055	0.0192	0.7247		2,462.2753	2,462.2753	0.0678		2,463.9703
Total	1.2186	5.3971	9.4278	0.0374	2.9868	0.0300	3.0168	0.7995	0.0279	0.8275		3,813.6237	3,813.6237	0.1527		3,817.4419

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8854	9.3101	7.7721	0.0162		0.4141	0.4141		0.3810	0.3810	0.0000	1,564.1900	1,564.1900	0.5059		1,576.8373
Total	0.8854	9.3101	7.7721	0.0162		0.4141	0.4141		0.3810	0.3810	0.0000	1,564.1900	1,564.1900	0.5059		1,576.8373

Wilshire Highland - Los Angeles-South Coast County, Winter

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1528	4.6960	1.3554	0.0126	0.3265	9.1400e-003	0.3357	0.0940	8.7400e-003	0.1028		1,351.3484	1,351.3484	0.0849		1,353.4716
Worker	1.0659	0.7010	8.0724	0.0247	2.6603	0.0208	2.6811	0.7055	0.0192	0.7247		2,462.2753	2,462.2753	0.0678		2,463.9703
Total	1.2186	5.3971	9.4278	0.0374	2.9868	0.0300	3.0168	0.7995	0.0279	0.8275		3,813.6237	3,813.6237	0.1527		3,817.4419

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8293	8.4237	7.6829	0.0162		0.3717	0.3717		0.3419	0.3419		1,564.5169	1,564.5169	0.5060		1,577.1668
Total	0.8293	8.4237	7.6829	0.0162		0.3717	0.3717		0.3419	0.3419		1,564.5169	1,564.5169	0.5060		1,577.1668

Wilshire Highland - Los Angeles-South Coast County, Winter

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.1135	3.5567	1.2044	0.0122	0.3265	4.3400e-003	0.3309	0.0940	4.1500e-003	0.0982		1,309.3807	1,309.3807	0.0748			1,311.2498
Worker	1.0042	0.6340	7.4201	0.0238	2.6603	0.0202	2.6805	0.7055	0.0186	0.7242		2,372.1950	2,372.1950	0.0611			2,373.7212
Total	1.1177	4.1907	8.6245	0.0360	2.9868	0.0246	3.0114	0.7995	0.0228	0.8223		3,681.5756	3,681.5756	0.1358			3,684.9710

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.8293	8.4237	7.6829	0.0162		0.3717	0.3717		0.3419	0.3419	0.0000	1,564.5169	1,564.5169	0.5060			1,577.1668
Total	0.8293	8.4237	7.6829	0.0162		0.3717	0.3717		0.3419	0.3419	0.0000	1,564.5169	1,564.5169	0.5060			1,577.1668

Wilshire Highland - Los Angeles-South Coast County, Winter

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1135	3.5567	1.2044	0.0122	0.3265	4.3400e-003	0.3309	0.0940	4.1500e-003	0.0982		1,309.3807	1,309.3807	0.0748		1,311.2498
Worker	1.0042	0.6340	7.4201	0.0238	2.6603	0.0202	2.6805	0.7055	0.0186	0.7242		2,372.1950	2,372.1950	0.0611		2,373.7212
Total	1.1177	4.1907	8.6245	0.0360	2.9868	0.0246	3.0114	0.7995	0.0228	0.8223		3,681.5756	3,681.5756	0.1358		3,684.9710

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7858	7.7455	7.6038	0.0162		0.3377	0.3377		0.3106	0.3106		1,564.8014	1,564.8014	0.5061		1,577.4537
Total	0.7858	7.7455	7.6038	0.0162		0.3377	0.3377		0.3106	0.3106		1,564.8014	1,564.8014	0.5061		1,577.4537

Wilshire Highland - Los Angeles-South Coast County, Winter

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1107	3.5439	1.1679	0.0122	0.3265	4.2700e-003	0.3308	0.0940	4.0800e-003	0.0981		1,304.3024	1,304.3024	0.0736		1,306.1432
Worker	0.9529	0.5781	6.9078	0.0231	2.6603	0.0199	2.6802	0.7055	0.0184	0.7239		2,298.6130	2,298.6130	0.0559		2,300.0114
Total	1.0636	4.1220	8.0757	0.0352	2.9868	0.0242	3.0110	0.7995	0.0224	0.8220		3,602.9154	3,602.9154	0.1296		3,606.1546

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7858	7.7455	7.6038	0.0162		0.3377	0.3377		0.3106	0.3106	0.0000	1,564.8014	1,564.8014	0.5061		1,577.4537
Total	0.7858	7.7455	7.6038	0.0162		0.3377	0.3377		0.3106	0.3106	0.0000	1,564.8014	1,564.8014	0.5061		1,577.4537

Wilshire Highland - Los Angeles-South Coast County, Winter

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1107	3.5439	1.1679	0.0122	0.3265	4.2700e-003	0.3308	0.0940	4.0800e-003	0.0981		1,304.3024	1,304.3024	0.0736		1,306.1432
Worker	0.9529	0.5781	6.9078	0.0231	2.6603	0.0199	2.6802	0.7055	0.0184	0.7239		2,298.6130	2,298.6130	0.0559		2,300.0114
Total	1.0636	4.1220	8.0757	0.0352	2.9868	0.0242	3.0110	0.7995	0.0224	0.8220		3,602.9154	3,602.9154	0.1296		3,606.1546

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.8688	1,297.8688	0.4114		1,308.1547

Wilshire Highland - Los Angeles-South Coast County, Winter

3.5 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0316	0.3773	1.2600e-003	0.1453	1.0900e-003	0.1464	0.0385	1.0000e-003	0.0395		125.5545	125.5545	3.0600e-003		125.6309
Total	0.0521	0.0316	0.3773	1.2600e-003	0.1453	1.0900e-003	0.1464	0.0385	1.0000e-003	0.0395		125.5545	125.5545	3.0600e-003		125.6309

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594	0.0000	1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594	0.0000	1,297.8688	1,297.8688	0.4114		1,308.1547

Wilshire Highland - Los Angeles-South Coast County, Winter

3.5 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0316	0.3773	1.2600e-003	0.1453	1.0900e-003	0.1464	0.0385	1.0000e-003	0.0395		125.5545	125.5545	3.0600e-003		125.6309
Total	0.0521	0.0316	0.3773	1.2600e-003	0.1453	1.0900e-003	0.1464	0.0385	1.0000e-003	0.0395		125.5545	125.5545	3.0600e-003		125.6309

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	34.1338	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Wilshire Highland - Los Angeles-South Coast County, Winter

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1922	0.1166	1.3932	4.6500e-003	0.5365	4.0200e-003	0.5406	0.1423	3.7000e-003	0.1460		463.5858	463.5858	0.0113		463.8679
Total	0.1922	0.1166	1.3932	4.6500e-003	0.5365	4.0200e-003	0.5406	0.1423	3.7000e-003	0.1460		463.5858	463.5858	0.0113		463.8679

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.9531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	34.1338	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Wilshire Highland - Los Angeles-South Coast County, Winter

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.1922	0.1166	1.3932	4.6500e-003	0.5365	4.0200e-003	0.5406	0.1423	3.7000e-003	0.1460		463.5858	463.5858	0.0113			463.8679
Total	0.1922	0.1166	1.3932	4.6500e-003	0.5365	4.0200e-003	0.5406	0.1423	3.7000e-003	0.1460		463.5858	463.5858	0.0113			463.8679

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Wilshire Highland - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2841	10.3704	28.9490	0.1170	10.8503	0.0911	10.9414	2.9031	0.0846	2.9877		11,940.10 10	11,940.10 10	0.5699		11,954.34 92
Unmitigated	2.2841	10.3704	28.9490	0.1170	10.8503	0.0911	10.9414	2.9031	0.0846	2.9877		11,940.10 10	11,940.10 10	0.5699		11,954.34 92

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,275.75	1,275.75	1275.75	4,359,432	4,359,432
Enclosed Parking with Elevator	0.00	0.00	0.00		
Strip Mall	391.20	391.20	391.20	744,297	744,297
Total	1,666.95	1,666.95	1,666.95	5,103,729	5,103,729

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Wilshire Highland - Los Angeles-South Coast County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841
Enclosed Parking with Elevator	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841
Strip Mall	0.544880	0.044491	0.207704	0.117752	0.014693	0.006272	0.020732	0.032141	0.002572	0.001984	0.005239	0.000700	0.000841

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0667	0.5703	0.2447	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.6688	727.6688	0.0140	0.0133	731.9930
NaturalGas Unmitigated	0.0667	0.5703	0.2447	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.6688	727.6688	0.0140	0.0133	731.9930

Wilshire Highland - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	6136.21	0.0662	0.5655	0.2406	3.6100e-003		0.0457	0.0457		0.0457	0.0457		721.9070	721.9070	0.0138	0.0132	726.1969
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	48.9753	5.3000e-004	4.8000e-003	4.0300e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004		5.7618	5.7618	1.1000e-004	1.1000e-004	5.7960
Total		0.0667	0.5703	0.2447	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.6688	727.6688	0.0140	0.0133	731.9930

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	6.13621	0.0662	0.5655	0.2406	3.6100e-003		0.0457	0.0457		0.0457	0.0457		721.9070	721.9070	0.0138	0.0132	726.1969
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0489753	5.3000e-004	4.8000e-003	4.0300e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004		5.7618	5.7618	1.1000e-004	1.1000e-004	5.7960
Total		0.0667	0.5703	0.2447	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.6688	727.6688	0.0140	0.0133	731.9930

6.0 Area Detail

Wilshire Highland - Los Angeles-South Coast County, Winter

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.5382	3.6573	21.5240	0.0229		0.3883	0.3883		0.3883	0.3883	0.0000	4,410.178 1	4,410.178 1	0.1186	0.0802	4,437.040 0
Unmitigated	6.5382	3.6573	21.5240	0.0229		0.3883	0.3883		0.3883	0.3883	0.0000	4,410.178 1	4,410.178 1	0.1186	0.0802	4,437.040 0

Wilshire Highland - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4551					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4010	3.4263	1.4580	0.0219		0.2770	0.2770		0.2770	0.2770	0.0000	4,374.0000	4,374.0000	0.0838	0.0802	4,399.9925
Landscaping	0.6048	0.2310	20.0660	1.0600e-003		0.1113	0.1113		0.1113	0.1113		36.1781	36.1781	0.0348		37.0475
Total	6.5382	3.6573	21.5240	0.0229		0.3883	0.3883		0.3883	0.3883	0.0000	4,410.1781	4,410.1781	0.1186	0.0802	4,437.0400

Wilshire Highland - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4551					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4010	3.4263	1.4580	0.0219		0.2770	0.2770		0.2770	0.2770	0.0000	4,374.0000	4,374.0000	0.0838	0.0802	4,399.9925
Landscaping	0.6048	0.2310	20.0660	1.0600e-003		0.1113	0.1113		0.1113	0.1113		36.1781	36.1781	0.0348		37.0475
Total	6.5382	3.6573	21.5240	0.0229		0.3883	0.3883		0.3883	0.3883	0.0000	4,410.1781	4,410.1781	0.1186	0.0802	4,437.0400

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Wilshire Highland - Los Angeles-South Coast County, Winter

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Existing Site - Los Angeles-South Coast County, Annual

Existing Site
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	36.30	1000sqft	0.83	36,300.00	0
Parking Lot	39.80	1000sqft	0.00	39,795.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking lot accounts for all surface asphalt on the site including the parking lot on the southern and northern lots and the street. Land use size of existing commercial structure consistent with the MOU.

Construction Phase - operational emissions only

Off-road Equipment - Operational emissions only.

Grading -

Vehicle Trips - Consistent with the MOU.

Existing Site - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	PhaseEndDate	2/1/2021	1/29/2021
tblLandUse	LandUseSquareFeet	39,800.00	39,795.00
tblLandUse	LotAcreage	0.91	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	42.04	37.74
tblVehicleTrips	SU_TR	20.43	37.74
tblVehicleTrips	WD_TR	44.32	37.74

2.0 Emissions Summary

Existing Site - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	0.0000	0.0000
		Highest	0.0000	0.0000

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1931	1.0000e-005	9.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8900e-003	1.8900e-003	1.0000e-005	0.0000	2.0100e-003
Energy	3.2000e-004	2.9200e-003	2.4500e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	283.8734	283.8734	6.6900e-003	1.4300e-003	284.4667
Mobile	0.3633	1.7223	4.0362	0.0128	0.9893	0.0112	1.0005	0.2652	0.0105	0.2756	0.0000	1,182.0654	1,182.0654	0.0679	0.0000	1,183.7633
Waste						0.0000	0.0000		0.0000	0.0000	27.0100	0.0000	27.0100	1.5962	0.0000	66.9161
Water						0.0000	0.0000		0.0000	0.0000	2.9779	103.6712	106.6491	0.3083	7.7300e-003	116.6598
Total	0.5567	1.7252	4.0396	0.0128	0.9893	0.0114	1.0007	0.2652	0.0107	0.2759	29.9879	1,569.6118	1,599.5997	1.9792	9.1600e-003	1,651.8080

Existing Site - Los Angeles-South Coast County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1931	1.0000e-005	9.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8900e-003	1.8900e-003	1.0000e-005	0.0000	2.0100e-003
Energy	3.2000e-004	2.9200e-003	2.4500e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	283.8734	283.8734	6.6900e-003	1.4300e-003	284.4667
Mobile	0.3633	1.7223	4.0362	0.0128	0.9893	0.0112	1.0005	0.2652	0.0105	0.2756	0.0000	1,182.0654	1,182.0654	0.0679	0.0000	1,183.7633
Waste						0.0000	0.0000		0.0000	0.0000	27.0100	0.0000	27.0100	1.5962	0.0000	66.9161
Water						0.0000	0.0000		0.0000	0.0000	2.9779	103.6712	106.6491	0.3083	7.7300e-003	116.6598
Total	0.5567	1.7252	4.0396	0.0128	0.9893	0.0114	1.0007	0.2652	0.0107	0.2759	29.9879	1,569.6118	1,599.5997	1.9792	9.1600e-003	1,651.8080

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/29/2021	1/29/2021	5	1	

Acres of Grading (Site Preparation Phase): 0.5

Existing Site - Los Angeles-South Coast County, Annual

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Existing Site - Los Angeles-South Coast County, Annual

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9000e-003	0.0000	2.9000e-003	1.4800e-003	0.0000	1.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	2.9000e-003	0.0000	2.9000e-003	1.4800e-003	0.0000	1.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0396	0.0396	0.0000	0.0000	0.0396
Total	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0396	0.0396	0.0000	0.0000	0.0396

Existing Site - Los Angeles-South Coast County, Annual

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9000e-003	0.0000	2.9000e-003	1.4800e-003	0.0000	1.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	2.9000e-003	0.0000	2.9000e-003	1.4800e-003	0.0000	1.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0396	0.0396	0.0000	0.0000	0.0396
Total	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0396	0.0396	0.0000	0.0000	0.0396

4.0 Operational Detail - Mobile

Existing Site - Los Angeles-South Coast County, Annual

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3633	1.7223	4.0362	0.0128	0.9893	0.0112	1.0005	0.2652	0.0105	0.2756	0.0000	1,182.0654	1,182.0654	0.0679	0.0000	1,183.7633
Unmitigated	0.3633	1.7223	4.0362	0.0128	0.9893	0.0112	1.0005	0.2652	0.0105	0.2756	0.0000	1,182.0654	1,182.0654	0.0679	0.0000	1,183.7633

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Strip Mall	1,369.96	1,369.96	1,369.96	2,606,483	2,606,483
Total	1,369.96	1,369.96	1,369.96	2,606,483	2,606,483

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Existing Site - Los Angeles-South Coast County, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Strip Mall	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	280.6965	280.6965	6.6300e-003	1.3700e-003	281.2710
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	280.6965	280.6965	6.6300e-003	1.3700e-003	281.2710
NaturalGas Mitigated	3.2000e-004	2.9200e-003	2.4500e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1769	3.1769	6.0000e-005	6.0000e-005	3.1957
NaturalGas Unmitigated	3.2000e-004	2.9200e-003	2.4500e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1769	3.1769	6.0000e-005	6.0000e-005	3.1957

Existing Site - Los Angeles-South Coast County, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	59532	3.2000e-004	2.9200e-003	2.4500e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1769	3.1769	6.0000e-005	6.0000e-005	3.1957
Total		3.2000e-004	2.9200e-003	2.4500e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1769	3.1769	6.0000e-005	6.0000e-005	3.1957

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	59532	3.2000e-004	2.9200e-003	2.4500e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1769	3.1769	6.0000e-005	6.0000e-005	3.1957
Total		3.2000e-004	2.9200e-003	2.4500e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1769	3.1769	6.0000e-005	6.0000e-005	3.1957

Existing Site - Los Angeles-South Coast County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	13928.3	7.7575	1.8000e-004	4.0000e-005	7.7734
Strip Mall	490050	272.9390	6.4500e-003	1.3300e-003	273.4976
Total		280.6965	6.6300e-003	1.3700e-003	281.2710

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	13928.3	7.7575	1.8000e-004	4.0000e-005	7.7734
Strip Mall	490050	272.9390	6.4500e-003	1.3300e-003	273.4976
Total		280.6965	6.6300e-003	1.3700e-003	281.2710

6.0 Area Detail

6.1 Mitigation Measures Area

Existing Site - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1931	1.0000e-005	9.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8900e-003	1.8900e-003	1.0000e-005	0.0000	2.0100e-003
Unmitigated	0.1931	1.0000e-005	9.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8900e-003	1.8900e-003	1.0000e-005	0.0000	2.0100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0593					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1337					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8900e-003	1.8900e-003	1.0000e-005	0.0000	2.0100e-003
Total	0.1931	1.0000e-005	9.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8900e-003	1.8900e-003	1.0000e-005	0.0000	2.0100e-003

Existing Site - Los Angeles-South Coast County, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0593					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1337					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8900e-003	1.8900e-003	1.0000e-005	0.0000	2.0100e-003
Total	0.1931	1.0000e-005	9.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8900e-003	1.8900e-003	1.0000e-005	0.0000	2.0100e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Existing Site - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	106.6491	0.3083	7.7300e-003	116.6598
Unmitigated	106.6491	0.3083	7.7300e-003	116.6598

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	9.38647 / 5.753	106.6491	0.3083	7.7300e-003	116.6598
Total		106.6491	0.3083	7.7300e-003	116.6598

Existing Site - Los Angeles-South Coast County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	9.38647 / 5.753	106.6491	0.3083	7.7300e-003	116.6598
Total		106.6491	0.3083	7.7300e-003	116.6598

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	27.0100	1.5962	0.0000	66.9161
Unmitigated	27.0100	1.5962	0.0000	66.9161

Existing Site - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	133.06	27.0100	1.5962	0.0000	66.9161
Total		27.0100	1.5962	0.0000	66.9161

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	133.06	27.0100	1.5962	0.0000	66.9161
Total		27.0100	1.5962	0.0000	66.9161

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

Existing Site - Los Angeles-South Coast County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Existing Site - Los Angeles-South Coast County, Summer

Existing Site
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	36.30	1000sqft	0.83	36,300.00	0
Parking Lot	39.80	1000sqft	0.00	39,795.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking lot accounts for all surface asphalt on the site including the parking lot on the southern and northern lots and the street. Land use size of existing commercial structure consistent with the MOU.

Construction Phase - operational emissions only

Off-road Equipment - Operational emissions only.

Grading -

Vehicle Trips - Consistent with the MOU.

Existing Site - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	PhaseEndDate	2/1/2021	1/29/2021
tblLandUse	LandUseSquareFeet	39,800.00	39,795.00
tblLandUse	LotAcreage	0.91	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	42.04	37.74
tblVehicleTrips	SU_TR	20.43	37.74
tblVehicleTrips	WD_TR	44.32	37.74

2.0 Emissions Summary

Existing Site - Los Angeles-South Coast County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0584	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178
Energy	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024
Mobile	2.1204	9.1622	22.5850	0.0729	5.5425	0.0614	5.6039	1.4833	0.0573	1.5406		7,420.9490	7,420.9490	0.4113		7,431.2313
Total	3.1806	9.1782	22.6062	0.0730	5.5425	0.0626	5.6051	1.4833	0.0585	1.5418		7,440.1540	7,440.1540	0.4117	3.5000e-004	7,450.5515

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0584	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178
Energy	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024
Mobile	2.1204	9.1622	22.5850	0.0729	5.5425	0.0614	5.6039	1.4833	0.0573	1.5406		7,420.9490	7,420.9490	0.4113		7,431.2313
Total	3.1806	9.1782	22.6062	0.0730	5.5425	0.0626	5.6051	1.4833	0.0585	1.5418		7,440.1540	7,440.1540	0.4117	3.5000e-004	7,450.5515

Existing Site - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/29/2021	1/29/2021	5	1	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Existing Site - Los Angeles-South Coast County, Summer

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	5.7996	0.0000	5.7996	2.9537	0.0000	2.9537		0.0000	0.0000	0.0000		0.0000

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
Total	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687

Existing Site - Los Angeles-South Coast County, Summer

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	5.7996	0.0000	5.7996	2.9537	0.0000	2.9537	0.0000	0.0000	0.0000	0.0000		0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
Total	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687

4.0 Operational Detail - Mobile

Existing Site - Los Angeles-South Coast County, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1204	9.1622	22.5850	0.0729	5.5425	0.0614	5.6039	1.4833	0.0573	1.5406		7,420.9490	7,420.9490	0.4113		7,431.2313
Unmitigated	2.1204	9.1622	22.5850	0.0729	5.5425	0.0614	5.6039	1.4833	0.0573	1.5406		7,420.9490	7,420.9490	0.4113		7,431.2313

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Strip Mall	1,369.96	1,369.96	1,369.96	2,606,483	2,606,483
Total	1,369.96	1,369.96	1,369.96	2,606,483	2,606,483

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Existing Site - Los Angeles-South Coast County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Strip Mall	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024
NaturalGas Unmitigated	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024

Existing Site - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	163.101	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024
Total		1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.163101	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024
Total		1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024

6.0 Area Detail

6.1 Mitigation Measures Area

Existing Site - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0584	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178
Unmitigated	1.0584	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3249					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7328					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3000e-004	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178
Total	1.0584	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178

Existing Site - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3249					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7328					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3000e-004	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178
Total	1.0584	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Existing Site - Los Angeles-South Coast County, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Existing Site - Los Angeles-South Coast County, Winter

Existing Site
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	36.30	1000sqft	0.83	36,300.00	0
Parking Lot	39.80	1000sqft	0.00	39,795.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking lot accounts for all surface asphalt on the site including the parking lot on the southern and northern lots and the street. Land use size of existing commercial structure consistent with the MOU.

Construction Phase - operational emissions only

Off-road Equipment - Operational emissions only.

Grading -

Vehicle Trips - Consistent with the MOU.

Existing Site - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	PhaseEndDate	2/1/2021	1/29/2021
tblLandUse	LandUseSquareFeet	39,800.00	39,795.00
tblLandUse	LotAcreage	0.91	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	42.04	37.74
tblVehicleTrips	SU_TR	20.43	37.74
tblVehicleTrips	WD_TR	44.32	37.74

2.0 Emissions Summary

Existing Site - Los Angeles-South Coast County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0584	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178
Energy	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024
Mobile	2.0584	9.2950	22.0109	0.0693	5.5425	0.0619	5.6044	1.4833	0.0578	1.5411		7,048.9029	7,048.9029	0.4151		7,059.2793
Total	3.1186	9.3111	22.0322	0.0694	5.5425	0.0632	5.6056	1.4833	0.0590	1.5423		7,068.1079	7,068.1079	0.4155	3.5000e-004	7,078.5995

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0584	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178
Energy	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024
Mobile	2.0584	9.2950	22.0109	0.0693	5.5425	0.0619	5.6044	1.4833	0.0578	1.5411		7,048.9029	7,048.9029	0.4151		7,059.2793
Total	3.1186	9.3111	22.0322	0.0694	5.5425	0.0632	5.6056	1.4833	0.0590	1.5423		7,068.1079	7,068.1079	0.4155	3.5000e-004	7,078.5995

Existing Site - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/29/2021	1/29/2021	5	1	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Existing Site - Los Angeles-South Coast County, Winter

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	5.7996	0.0000	5.7996	2.9537	0.0000	2.9537		0.0000	0.0000	0.0000		0.0000

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
Total	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432

Existing Site - Los Angeles-South Coast County, Winter

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	5.7996	0.0000	5.7996	2.9537	0.0000	2.9537	0.0000	0.0000	0.0000	0.0000		0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
Total	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432

4.0 Operational Detail - Mobile

Existing Site - Los Angeles-South Coast County, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0584	9.2950	22.0109	0.0693	5.5425	0.0619	5.6044	1.4833	0.0578	1.5411		7,048.9029	7,048.9029	0.4151		7,059.2793
Unmitigated	2.0584	9.2950	22.0109	0.0693	5.5425	0.0619	5.6044	1.4833	0.0578	1.5411		7,048.9029	7,048.9029	0.4151		7,059.2793

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Strip Mall	1,369.96	1,369.96	1,369.96	2,606,483	2,606,483
Total	1,369.96	1,369.96	1,369.96	2,606,483	2,606,483

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Existing Site - Los Angeles-South Coast County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Strip Mall	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024
NaturalGas Unmitigated	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024

Existing Site - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	163.101	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024
Total		1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.163101	1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024
Total		1.7600e-003	0.0160	0.0134	1.0000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003		19.1884	19.1884	3.7000e-004	3.5000e-004	19.3024

6.0 Area Detail

6.1 Mitigation Measures Area

Existing Site - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0584	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178
Unmitigated	1.0584	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3249					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7328					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3000e-004	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178
Total	1.0584	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178

Existing Site - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3249					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7328					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3000e-004	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178
Total	1.0584	7.0000e-005	7.8000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0167	0.0167	4.0000e-005		0.0178

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Existing Site - Los Angeles-South Coast County, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

DATA, EQUIPMENT AND TIME ESTIMATE – General Information

Project: Wilshire/
Highland

<u>LAND USE TYPE</u>	<u>UNITS/SF</u>

ZONING (Will this project require one?)

Zone Change?
 Yes
 No

GPA?
 Yes
 No

START DATES – One-Phase

(Month/ Year) Duration (Months)

Demolition (if applicable):	6-2022	1
Grading:	7-2022	3
Paving:	7-24	2
Construction:	10-2022	27
Painting:	7-24	2

Pile Driving

Is pile driving required?

Yes
 No

Type of pile driving (e.g., diesel hammer, hydraulic hammer, hydraulic press-in, vibratory, etc.):

Number of piles:
 Duration (days):

START DATES – Multi-Phase

(Month/ Year) Duration (Months)

Phase 1	Demolition:		
	Grading:		
	Paving:		
	Construction:		
	Painting:		
Phase 2	Demolition:		
	Grading:		
	Paving:		
	Construction:		
	Painting:		
Phase 3	Demolition:		
	Grading:		
	Paving:		
	Construction:		
	Painting:		

COMPLETION DATE

(Month/ Year)

For ALL Construction:

DEMOLITION DETAILS

Project: Wilshire/ Highland

DEMOLITION

Units	Type of Equipment
	Bore/Drill Rigs
3	Concrete/Industrial Saws
	Crane
1	Crawler Tractors
	Crushing/Processing Equip.
1	Excavators
	Graders
	Off-Highway Tractors
	Off-Highway Trucks
	Other Equipment
	Pavers
	Paving Equipment
	Rollers
	Rough Terrain Forklifts
1	Rubber Tired Dozers
	Rubber Tired Loaders
	Scrapers
4	Signal Boards
1	Skid Steer Loaders
	Surfacing Equipment
	Tractors/Loaders/Backhoes
	Trenchers

BUILDING DEMOLITION

Structure Dimensions			or	Tons of Demolished Material
Width	Length	Height		<input type="text"/>
160	264	30		

Haul Truck Data:

Number of Trips/Day:	<input type="text" value="TBD"/>	
Round Trip to Disposal Site:	<input type="text" value="TBD"/>	(miles)
Approx. Cubic Yards of Each Truck	<input type="text" value="TBD"/>	

Asbestos Containing Material:

	(Check One)	
Known to be Present?	<input type="checkbox"/>	Yes
	<input type="checkbox"/>	No

Underground Storage Tanks (UST):

	(Check One)	
Known to be Present?	<input type="checkbox"/>	Yes
	<input checked="" type="checkbox"/>	No

RELATED ADDITIONAL INFORMATION:

GRADING EQUIPMENT / DUST CONTROL DETAILS

Project: Wilshire/ Highland

GRADING

Units	Type of Equipment
	Bore/Drill Rigs
	Concrete/Industrial Saws
	Crane
1	Crawler Tractors
	Crushing/Processing Equip.
1	Excavators
	Graders
	Off-Highway Tractors
	Off-Highway Trucks
	Other Equipment
	Pavers
	Paving Equipment
	Pile Drivers
	Rollers
	Rough Terrain Forklifts
	Rubber Tired Dozers
	Rubber Tired Loaders
	Scrapers
4	Signal Boards
1	Skid Steer Loaders
	Surfacing Equipment
1	Tractors/Loaders/Backhoes
	Trenchers

DUST CONTROL

Will Haul Roads be paved? (Check One)
 Yes
 No

How will dust be controlled? (Check One)
 Water? (Recommended)
 Chemical?
 Other? Specify:

How often will the control method be applied? (Check One)
 > 3 Times / Day (Recommended)
 > 1 Time / Day
 Other

EARTHWORK

Total Cut	65,095	cubic yards
Total Fill	0	cubic yards
Duration	90	days

SOIL IMPORT / EXPORT INFORMATION

Soil to be imported		cubic yards
Soil to be exported	65,095	cubic yards
Hauling Days	90	(# of days soil will be brought in or out)
Roundtrip Distance	TBD	(distance from site to haul/dump site and back)

RELATED ADDITIONAL INFORMATION:

CONSTRUCTION, PAVING, AND PAINTING EQUIPMENT DETAILS

Project: Wilshire/ Highland

CONSTRUCTION

Units	Type of Equipment
	Bore/Drill Rigs
	Concrete/Industrial Saws
2	Crane
	Crawler Tractors
	Crushing/Processing Equip.
1	Excavators
	Graders
	Off-Highway Tractors
	Off-Highway Trucks
	Other Equipment
	Pavers
	Paving Equipment
	Pile Drivers
	Rollers
	Rough Terrain Forklifts
	Rubber Tired Dozers
	Rubber Tired Loaders
	Scrapers
	Signal Boards
	Skid Steer Loaders
	Surfacing Equipment
1	Tractors/Loaders/Backhoes
	Trenchers

PAVING

Units	Type of Equipment
	Graders
	Off-Highway Trucks
	Other Equipment
	Pavers
	Paving Equipment
	Rollers
	Rubber Tired Loaders
	Signal Boards
	Surfacing Equipment
	Tractors/Loaders/Backhoes

PAVING AREA (Includes existing street widening/excludes concreted areas)

Total Acres Paved: (estimate)

(Please note that "paving" does NOT include concreted areas.)

BUILDING INSULTATION – TITLE 24

Will structures MEET Title 24 requirements?
 Will structures EXCEED
 If they EXCEED Title 24 requirements – by what percentage?
 Check: 10%
 20%
 30%
 Other: (Fill in %)

Please describe any structures/buildings will be pre-coated or painted (please provide square footages as well):
 Approximately 65% of the exterior facade will be painted. Approximately 46,587 s.f.

DEMOLITION DEBRIS

Land Use Sizes

Land Use	Dimensions
Commercial Structure	(160 feet x 55 feet) + (264 feet x 55 feet) = 23,320 SF
Surface Parking Lot and Street	39,795 SF

Cubic Yards of Demolition Debris

	$\frac{\text{length x width x height x 0.33}}{27} = \text{CY}$
<i>Commercial Building</i>	$\frac{23,320 \text{ SF x } 30 \text{ ft x } 0.33}{27} = 8,551 \text{ CY}$
<i>Surface Parking Lot and Street</i>	$\frac{39,795 \text{ SF x } 1 \text{ ft}}{27} = 1,474 \text{ CY}$

Tons of Demolition Debris

Land Use	Cubic Yards	Conversion (tons/CY)	Tons
Commercial Structure	8,551	1.43	12,228
Surface Parking Lot and Street	1,474	0.48	708
	TOTAL		12,936

References

- FEMA. 2010. Debris Estimating Field Guide. Available online at: https://www.fema.gov/sites/default/files/2020-07/fema_329_debris-estimating_field-guide_9-1-2010.pdf
- Syracuse Land Bank. 2011. Construction and Demolition Debris Weight to Volume Conversion. Available online at: <http://syracuselandbank.org/wp-content/uploads/2014/07/CD-weight-to-volume-calculation-Waste-Cap-from-other-sources.pdf>