



APPLICATIONS:

APPEAL APPLICATION

Instructions and Checklist

Related Code Section: Refer to the City Planning case determination to identify the Zone Code section for the entitlement and the appeal procedure.

Purpose: This application is for the appeal of Department of City Planning determinations authorized by the Los Angeles Municipal Code (LAMC).

A. APPELLATE BODY/CASE INFORMATION

1. APPELLATE BODY

- ☐ Area Planning Commission ☐ City Planning Commission ☐ City Council ☐ Director of Planning
☐ Zoning Administrator

Regarding Case Number: _____

Project Address: _____

Final Date to Appeal: _____

2. APPELLANT

Appellant Identity:
(check all that apply)

- ☐ Representative ☐ Property Owner
☐ Applicant ☐ Operator of the Use/Site

- ☐ Person, other than the Applicant, Owner or Operator claiming to be aggrieved

- ☐ Person affected by the determination made by the **Department of Building and Safety**

- ☐ Representative ☐ Owner ☐ Aggrieved Party
☐ Applicant ☐ Operator

3. APPELLANT INFORMATION

Appellant's Name: _____

Company/Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____ E-mail: _____

a. Is the appeal being filed on your behalf or on behalf of another party, organization or company?

- ☐ Self ☐ Other: _____

b. Is the appeal being filed to support the original applicant's position? ☐ Yes ☐ No

4. REPRESENTATIVE/AGENT INFORMATION

Representative/Agent name (if applicable): _____

Company: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____ E-mail: _____

5. JUSTIFICATION/REASON FOR APPEAL

a. Is the entire decision, or only parts of it being appealed? ☐ Entire ☐ Part

b. Are specific conditions of approval being appealed? ☐ Yes ☐ No

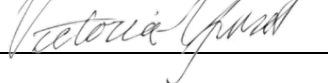
If Yes, list the condition number(s) here: _____

Attach a separate sheet providing your reasons for the appeal. Your reason must state:

- ☐ The reason for the appeal ☐ How you are aggrieved by the decision
☐ Specifically the points at issue ☐ Why you believe the decision-maker erred or abused their discretion

6. APPLICANT'S AFFIDAVIT

I certify that the statements contained in this application are complete and true:

Appellant Signature:  Date: December 27, 2022

GENERAL APPEAL FILING REQUIREMENTS

B. ALL CASES REQUIRE THE FOLLOWING ITEMS - SEE THE ADDITIONAL INSTRUCTIONS FOR SPECIFIC CASE TYPES

1. Appeal Documents

a. **Three (3) sets** - The following documents are required for each appeal filed (1 original and 2 duplicates)
Each case being appealed is required to provide three (3) sets of the listed documents.

- ☐ Appeal Application (form CP-7769)
☐ Justification/Reason for Appeal
☐ Copies of Original Determination Letter

b. Electronic Copy

- ☐ Provide an electronic copy of your appeal documents on a flash drive (planning staff will upload materials during filing and return the flash drive to you) or a CD (which will remain in the file). The following items must be saved as individual PDFs and labeled accordingly (e.g. "Appeal Form.pdf", "Justification/Reason Statement.pdf", or "Original Determination Letter.pdf" etc.). No file should exceed 9.8 MB in size.

c. Appeal Fee

- ☐ Original Applicant - A fee equal to 85% of the original application fee, provide a copy of the original application receipt(s) to calculate the fee per LAMC Section 19.01B 1.
☐ Aggrieved Party - The fee charged shall be in accordance with the LAMC Section 19.01B 1.

d. Notice Requirement

- ☐ Mailing List - All appeals require noticing per the applicable LAMC section(s). Original Applicants must provide noticing per the LAMC
☐ Mailing Fee - The appeal notice mailing fee is paid by the project applicant, payment is made to the City Planning's mailing contractor (BTC), a copy of the receipt must be submitted as proof of payment.

SPECIFIC CASE TYPES - APPEAL FILING INFORMATION
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C. DENSITY BONUS / TRANSIT ORIENTED COMMUNITES (TOC)**1. Density Bonus/TOC**

Appeal procedures for Density Bonus/TOC per LAMC Section 12.22.A 25 (g) f.

NOTE:

- Density Bonus/TOC cases, only the *on menu or additional incentives* items can be appealed.
- Appeals of Density Bonus/TOC cases can only be filed by adjacent owners or tenants (must have documentation), and always only appealable to the Citywide Planning Commission.
- ☐ Provide documentation to confirm adjacent owner or tenant status, i.e., a lease agreement, rent receipt, utility bill, property tax bill, ZIMAS, drivers license, bill statement etc.

D. WAIVER OF DEDICATION AND OR IMPROVEMENT

Appeal procedure for Waiver of Dedication or Improvement per LAMC Section 12.37 I.

NOTE:

- Waivers for By-Right Projects, can only be appealed by the owner.
- When a Waiver is on appeal and is part of a master land use application request or subdivider's statement for a project, the applicant may appeal pursuant to the procedures that governs the entitlement.

E. TENTATIVE TRACT/VESTING**1. Tentative Tract/Vesting** - Appeal procedure for Tentative Tract / Vesting application per LAMC Section 17.54 A.

NOTE: Appeals to the City Council from a determination on a Tentative Tract (TT or VTT) by the Area or City Planning Commission must be filed within 10 days of the date of the written determination of said Commission.

- ☐ Provide a copy of the written determination letter from Commission.

F. BUILDING AND SAFETY DETERMINATION

- ☐ **1.** Appeal of the Department of Building and Safety determination, per LAMC 12.26 K 1, an appellant is considered the **Original Applicant** and must provide noticing and pay mailing fees.

a. Appeal Fee

- ☐ Original Applicant - The fee charged shall be in accordance with LAMC Section 19.01B 2, as stated in the Building and Safety determination letter, plus all surcharges. (the fee specified in Table 4-A, Section 98.0403.2 of the City of Los Angeles Building Code)

b. Notice Requirement

- ☐ Mailing Fee - The applicant must pay mailing fees to City Planning's mailing contractor (BTC) and submit a copy of receipt as proof of payment.

- ☐ **2.** Appeal of the Director of City Planning determination per LAMC Section 12.26 K 6, an applicant or any other aggrieved person may file an appeal, and is appealable to the Area Planning Commission or Citywide Planning Commission as noted in the determination.

a. Appeal Fee

- ☐ Original Applicant - The fee charged shall be in accordance with the LAMC Section 19.01 B 1 a.

b. Notice Requirement

- ☐ Mailing List - The appeal notification requirements per LAMC Section 12.26 K 7 apply.
- ☐ Mailing Fees - The appeal notice mailing fee is made to City Planning's mailing contractor (BTC), a copy of receipt must be submitted as proof of payment.

G. NUISANCE ABATEMENT

1. Nuisance Abatement - Appeal procedure for Nuisance Abatement per LAMC Section 12.27.1 C 4

NOTE:

- Nuisance Abatement is only appealable to the City Council.

a. Appeal Fee

- ☐ Aggrieved Party the fee charged shall be in accordance with the LAMC Section 19.01 B 1.

2. Plan Approval/Compliance Review

Appeal procedure for Nuisance Abatement Plan Approval/Compliance Review per LAMC Section 12.27.1 C 4.

a. Appeal Fee

- ☐ Compliance Review - The fee charged shall be in accordance with the LAMC Section 19.01 B.
- ☐ Modification - The fee shall be in accordance with the LAMC Section 19.01 B.

NOTES

A Certified Neighborhood Council (CNC) or a person identified as a member of a CNC or as representing the CNC may not file an appeal on behalf of the Neighborhood Council; persons affiliated with a CNC may only file as an individual on behalf of self.

Please note that the appellate body must act on your appeal within a time period specified in the Section(s) of the Los Angeles Municipal Code (LAMC) pertaining to the type of appeal being filed. The Department of City Planning will make its best efforts to have appeals scheduled prior to the appellate body's last day to act in order to provide due process to the appellant. If the appellate body is unable to come to a consensus or is unable to hear and consider the appeal prior to the last day to act, the appeal is automatically deemed denied, and the original decision will stand. The last day to act as defined in the LAMC may only be extended if formally agreed upon by the applicant.

This Section for City Planning Staff Use Only		
Base Fee:	Reviewed & Accepted by (DSC Planner):	Date:
Receipt No:	Deemed Complete by (Project Planner):	Date:
<input type="checkbox"/> Determination authority notified		<input type="checkbox"/> Original receipt and BTC receipt (if original applicant)

Justification/Reason for Appeal

Dinah's Sepulveda Project

CPC-2021-4937-CU-DB-SPR-WDI-HCA; ENV-2021-4938-SCEA

I. REASON FOR THE APPEAL

The Sustainable Communities Environmental Assessment ("SCEA") prepared for the Dinah's Sepulveda Project (CPC-2021-4937-CU-DB-SPR-WDI-HCA; ENV-2021-4938-SCEA) ("Project") fails to comply with the California Environmental Quality Act ("CEQA"). Furthermore, the approval of the Site Plan Review entitlements (CPC-2021-4937-CU-DB-SPR-WDI-HCA) was in error because (1) the City of Los Angeles ("City") must fully comply with CEQA prior to any approvals in furtherance of the Project and (2) the findings are not supported by substantial evidence. Therefore, the City of Los Angeles ("City") must set aside the Site Plan Review entitlements and prepare and circulate an Environmental Impact Report ("EIR") prior to considering approvals for the Project.

II. SPECIFICALLY THE POINTS AT ISSUE

The specific points at issue are set forth in the attached comment letter dated September 20, 2022. An EIR must be prepared to remedy these issues. Furthermore, proper CEQA review must be complete *before* the City approves the Project's entitlements. (*Orinda Ass'n. v. Bd. of Supervisors* (1986) 182 Cal.App.3d 1145, 1171 ["No agency may approve a project subject to CEQA until the entire CEQA process is completed and the overall project is lawfully approved."].) As such, the approval of the Project's Site Plan Review entitlements was in error. Additionally, by failing to properly conduct environmental review under CEQA, the City lacks substantial evidence to support its findings for the Site Plan Review entitlements.

III. HOW YOU ARE AGGRIEVED BY THE DECISION

Members of appellant Supporters Alliance for Environmental Responsibility ("SAFER") live and/or work in the vicinity of the proposed Project. They breathe the air, suffer traffic congestion, and will suffer other environmental impacts of the Project unless it is properly mitigated.

IV. WHY YOU BELIEVE THE DECISION-MAKER ERRED OR ABUSED THEIR DISCRETION

The City Planning Commission approved the Site Plan Review and adopted the SCEA for the Project despite substantial evidence in the record that the SCEA fails to adequately analyze the Project's environmental impacts and fails to incorporate all feasible mitigation measures to reduce the Project's impacts. The Department of City Planning should therefore have prepared an EIR and circulated the document prior to consideration of approvals for the Project. The City is not permitted to approve the Project's entitlements until proper CEQA review has been completed.



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September 20, 2022

Via E-mail

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Re: Comment on Sustainable Communities Environmental Assessment, Dinah's Sepulveda Project (ENV-2021-4938-SCEA)

Dear Chair Dawson, Honorable PLUM Committee Councilmembers, and Mr. Song:

I am writing on behalf of Supporters Alliance for Environmental Responsibility ("SAFER") regarding the Sustainable Communities Environmental Assessment ("SCEA") prepared for the Dinah's Sepulveda Project (ENV-2021-4938-SCEA), including all actions related or referring to the proposed development of an eight-story, 362-unit multi-family residential building, with approximately 3,700 square feet of ground floor restaurant space, located at 6501-6521 South Sepulveda Boulevard and 6502-6520 South Arizona Avenue in the City of Los Angeles ("Project").

After reviewing the SCEA with the assistance of Certified Industrial Hygienist, Francis "Bud" Offermann, PE, CIH, air quality experts Matt Hagemann, P.G., C.Hg., and Paul E. Rosenfeld, Ph.D., of the Soil/Water/Air Protection Enterprise ("SWAPE"), and noise expert Deborah Ju of Wilson Ihrig, SAFER requests that the City of Los Angeles ("City") Planning Division refrain from taking any action on the Project and SCEA at this time because the SCEA's conclusions about the Project's impacts to air quality and noise are not supported by substantial evidence. In addition, we request that the City prepare an environmental impact

report ("EIR") for the Project pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000, et seq.

Mr. Offerman's comment and curriculum vitae are attached as Exhibit A hereto and is incorporated herein by reference in its entirety. SWAPE's comment and the consultants' curriculum vitae are attached as Exhibit B hereto and are incorporated herein by reference in their entirety. Ms. Ju's comment and curriculum vitae are attached as Exhibit C hereto and is incorporated herein by reference in its entirety.

I. PROJECT DESCRIPTION

The 96,030-SF (2.205-acre) Project site is located at 6501-6521 S. Sepulveda Boulevard and 6502-6520 S. Arizona Avenue in the Westchester-Playa del Rey Community Plan area (APNs 4110-001-006, 4110-001-007, and 4110-001-024). The site is bounded by an undeveloped parcel and Centinela Avenue to the north, a surface parking lot associated with a hotel to the south, Arizona Avenue to the west, and Sepulveda Boulevard to the east. The northern portion of the Project Site is currently improved with a single-story, multi-tenant commercial plaza and a single-story, multi-tenant industrial/mixed-use building containing a total of approximately 22,222 square feet of commercial space and 1,778 square feet of restaurant space, as well as a small locksmith shop, all with associated surface parking. The southern portion of the site is improved with an existing approximately 7,760-square-foot diner (Dinah's Family Restaurant) and associated surface parking.

The existing Dinah's Family Restaurant is a one-story structure constructed in 1957. Dinah's is eligible for listing in the California Register of Historical Places (California Register) and as a Los Angeles Historic-Cultural Monument. Vehicular access at the site is provided by three two-way driveway cuts, one on Sepulveda Boulevard and two on Arizona Avenue. Regional access to the Project Site is provided via Interstate 405, located approximately 300 feet east of the site.

A SCEA has been prepared for the proposed Project pursuant to Section 21155.2 of the California Public Resources Code ("PRC").

II. LEGAL STANDARD

Sustainable Communities Environmental Assessment under SB 375

The California Legislature passed SB 375, also known as the Sustainable Communities and Climate Protection Act, in an effort to integrate transportation and land use planning to reduce greenhouse gas ("GHG") emissions. (*See* California Senate Bill 375, Chapter 728, section 1(a).) SB 375 required the state Air Resources Board to develop regional emission reduction targets for cars and light trucks. (Gov. Code § 65080(b)(2)(A).) In addition, federally-designated metropolitan planning organizations that prepare regional transportation plans were required to include in those plans a "sustainable communities strategy" to achieve the emission targets.

(Gov. Code § 65080(b)(2)(B).)

CEQA allows for the streamlining of environmental review for “transit priority projects” meeting certain criteria. (Pub. Res. Code §§ 21155, 21155.1, 21155.2.) To qualify as a transit priority project, a project must:

- (1) contain at least 50 percent residential use, based on total building square footage and, if the project contains between 26 percent and 50 percent nonresidential uses, a floor area ratio of not less than 0.75;
- (2) provide a minimum net density of at least 20 dwelling units per acre; and
- (3) be within one-half mile of a major transit stop or high-quality transit corridor included in a regional transportation plan.

(Pub. Res. Code § 21155(b).) A transit priority project is eligible for CEQA’s streamlining provisions where:

[The transit priority project] is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy, for which the State Air Resources Board . . . has accepted a metropolitan planning organization’s determination that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emission reduction targets.

(Pub. Res. Code § 21155(a).) In 2020, the Southern California Association of Governments’ (“SCAG”) Regional Council formally adopted the Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (“2020–2045 RTP/SCS”), which was accepted by the California Air Resources Board (“CARB”) on October 30, 2020, and was certified on May 7, 2020.

If “all feasible mitigation measures, performance standards, or criteria set forth in the prior applicable environmental impact reports and adopted in findings made pursuant to Section 21081” are applied to a transit priority project, the project is eligible to conduct environmental review using a Sustainable Communities Environmental Assessment (“SCEA”). (Pub. Res. Code § 21155.2.) A SCEA must contain an initial study which “identif[ies] all significant or potentially significant impacts of the transit priority project . . . based on substantial evidence in light of the whole record.” (Pub. Res. Code § 21155.2(b)(1).) The initial study must also “identify any cumulative effects that have been adequately addressed and mitigated pursuant to the requirements of this division in prior applicable certified environmental impact reports.” (*Id.*) The SCEA must then “contain measures that either avoid or mitigate to a level of insignificance all potentially significant or significant effects of the project required to be identified in the initial study.” (Pub. Res. Code § 21155(b)(2).) The SCEA is not required to discuss growth inducing impacts or any project specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network. (Pub. Res. Code § 21159.28(a).)

After circulating the SCEA for public review and considering all comments, a lead agency may approve the SCEA with findings that all potentially significant impacts have been identified and mitigated to a less-than-significant level. (Pub. Res. Code § 21155(b)(3), (b)(4), (b)(5).) A lead agency's approval of a SCEA must be supported by substantial evidence. (Pub. Res. Code §21155(b)(7).)

III. ANALYSIS

A. The SCEA's conclusions regarding the Project's air quality impacts are not supported by substantial evidence.

Indoor air quality expert Francis "Bud" Offermann, PE, CIH, and air quality experts Matt Hagemann, P.G., C.Hg., and Paul E. Rosenfeld, Ph.D., of the Soil/Water/Air Protection Enterprise ("SWAPE") reviewed the SCEA and found that the SCEA's conclusions as to the Project's air quality impacts were not supported by substantial evidence. Mr. Offermann found that the SCEA failed to address and mitigate the human health impacts from indoor emissions of formaldehyde. Mr. Offermann's comment and CV are attached as Exhibit A. SWAPE found that SCEA failed to properly model the Project's emissions and failed to properly evaluate the Project's health risk impacts from emissions of diesel particulate matter. SWAPE's comment and CVs are attached as Exhibit B.

i. The SCEA failed to discuss or mitigate the Project's significant indoor air quality impacts.

The SCEA fails to discuss, disclose, analyze, and mitigate the significant health risks posed by the Project from formaldehyde, a toxic air contaminant ("TAC"). Certified Industrial Hygienist, Francis "Bud" Offermann, PE, CIH, conducted a review of the Project, the SCEA, and relevant documents regarding the Project's indoor air emissions. Mr. Offermann is one of the world's leading experts on indoor air quality, in particular emissions of formaldehyde, and has published extensively on the topic. As discussed below and set forth in Mr. Offermann's comments, the Project's emissions of formaldehyde to air will result in very significant cancer risks to future residents of the Project. Mr. Offermann's expert opinion demonstrates the Project's significant health risk impacts, which the City has a duty to investigate, disclose, and mitigate in the SCEA prior to approval. Mr. Offermann's comment and curriculum vitae are attached as Exhibit A.

Formaldehyde is a known human carcinogen and listed by the State as a TAC. SCAQMD has established a significance threshold of health risks for carcinogenic TACs of 10 in a million and a cumulative health risk threshold of 100 in a million. The SCEA fails to acknowledge the significant indoor air emissions that will result from the Project. Specifically, there is no discussion of impacts or health risks, no analysis, and no identification of mitigations for significant emissions of formaldehyde to air from the Project.

Mr. Offermann explains that many composite wood products typically used in home and apartment building construction contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. He states, "The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particle board. These materials are commonly used in residential, office, and retail building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims." (Ex. A, p. 2.)

Mr. Offermann found that future residents of the Project's residential units will be exposed to a cancer risk from formaldehyde of approximately 120 per million, *even assuming that* all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. (Ex. A, pp. 3-4.) This is more than 12 times SCAQMD's CEQA significance threshold of 10 per million. (*Id.*)

Mr. Offermann concludes that these significant environmental impacts must be analyzed and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. (Ex. A, pp. 11-12.) He prescribes a methodology for estimating the Project's formaldehyde emissions in order to do a more project-specific health risk assessment. (*Id.*, pp. 6-12.) Mr. Offermann also suggests several feasible mitigation measures, such as requiring the use of no-added-formaldehyde composite wood products, which are readily available. (*Id.*, pp. 12-13.) Mr. Offermann also suggests requiring air ventilation systems which would reduce formaldehyde levels. (*Id.*, p. 13.) Since the SCEA does not analyze this impact at all, none of these or other mitigation measures have been considered.

When a Project exceeds a duly adopted CEQA significance threshold, as here, this alone establishes substantial evidence that the project will have a significant adverse environmental impact. Indeed, in many instances, such air quality thresholds are the only criteria reviewed and treated as dispositive in evaluating the significance of a project's air quality impacts. (*See, e.g. Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 960 [County applies Air District's "published CEQA quantitative criteria" and "threshold level of cumulative significance"]; *see also Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 110-111 ["A 'threshold of significance' for a given environmental effect is simply that level at which the lead agency finds the effects of the project to be significant"].)

The California Supreme Court made clear the substantial importance that an air district significance threshold plays in providing substantial evidence of a significant adverse impact. (*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 327 ["As the [South Coast Air Quality Management] District's established significance threshold for NOx is 55 pounds per day, these estimates [of NOx emissions of 201 to 456 pounds per day] constitute substantial evidence supporting a fair argument for a significant adverse impact."].) Since expert evidence demonstrates that the Project will exceed the SCAQMD's CEQA significance threshold, there is substantial evidence that an "unstudied, **potentially significant environmental effect**[]" exists. (*See Friends of Coll. of San Mateo Gardens v. San Mateo Cty. Cmty. Coll. Dist.* (2016) 1 Cal.5th 937, 958 [emphasis added].) As a result, the City must address this impact and identify enforceable mitigation measures prior to

approving the SCEA. (*See* Pub. Res. Code § 21155.2(b)(5) [SCEA must mitigate all impacts to level of insignificance].)

The failure of the SCEA to address the Project's formaldehyde emissions is contrary to the California Supreme Court's decision in *California Building Industry Ass'n v. Bay Area Air Quality Mgmt. Dist.* (2015) 62 Cal.4th 369, 386 ("CBIA"). In that case, the Supreme Court expressly holds that potential adverse impacts to future users and residents from pollution generated by a proposed project ***must be addressed*** under CEQA. At issue in CBIA was whether the Air District could enact CEQA guidelines that advised lead agencies that they must analyze the impacts of adjacent environmental conditions on a project. The Supreme Court held that CEQA does not generally require lead agencies to consider the environment's effects on a project. (CBIA, 62 Cal.4th at 800-01.) However, to the extent a project may exacerbate existing environmental conditions at or near a project site, those would still have to be considered pursuant to CEQA. (*Id.* at 801.) In so holding, the Court expressly held that CEQA's statutory language required lead agencies to disclose and analyze "impacts on ***a project's users or residents*** that arise ***from the project's effects*** on the environment." (*Id.* at 800 [emphasis added].)

The carcinogenic formaldehyde emissions identified by Mr. Offermann are not an existing environmental condition. Those emissions to the air will be from the Project. People will be residing in and working in the Project's buildings once built and emitting formaldehyde. Once built, the Project will begin to emit formaldehyde at levels that pose significant direct and cumulative health risks. The Supreme Court in CBIA expressly finds that this type of air emission and health impact by the project on the environment and a "project's users and residents" must be addressed in the CEQA process. The existing TAC sources near the Project site would have to be considered in evaluating the cumulative effect on future residents of both the Project's TAC emissions as well as those existing off-site emissions.

The Supreme Court's reasoning is well-grounded in CEQA's statutory language. CEQA expressly includes a project's effects on human beings as an effect on the environment that must be addressed in an environmental review. "Section 21083(b)(3)'s express language, for example, requires a finding of a 'significant effect on the environment' (§ 21083(b)) whenever the 'environmental effects of a project will cause substantial adverse effects *on human beings*, either directly or indirectly.'" (CBIA, 62 Cal.4th at 800.) Likewise, "the Legislature has made clear—in declarations accompanying CEQA's enactment—that public health and safety are of great importance in the statutory scheme." (*Id.* [citing e.g., PRC §§ 21000, 21001].) It goes without saying that the future residents at the Project are human beings and their health and safety must be subject to CEQA's safeguards.

The City has a duty to investigate issues relating to a project's potential environmental impacts. (*See County Sanitation Dist. No. 2 v. County of Kern*, (2005) 127 Cal.App.4th 1544, 1597–98. ["[U]nder CEQA, the lead agency bears a burden to investigate potential environmental impacts."].) The proposed buildings will have significant impacts on air quality and health risks by emitting cancer-causing levels of formaldehyde into the air that will expose future residents to cancer risks potentially in excess of SCAQMD's threshold of significance for

cancer health risks of 10 in a million. Currently, outside of Mr. Offermann's comments, the City does not have any idea what risks will be posed by formaldehyde emissions from the Project or the residences. As a result, the City must include an analysis and discussion in an EIR which discloses and analyzes the health risks that the Project's formaldehyde emissions may have on future residents and identifies appropriate mitigation measures.

- ii. The SCEA cannot be relied upon to determine the significance of the Project's air quality impacts because the SCEA's air model underestimated the Project's emissions.

SWAPE's review of the SCEA found that it underestimated the Project's emissions and therefore cannot be relied upon to determine the significance of the Project's air quality impacts. The SCEA relies on emissions calculated from the California Emissions Estimator Model Version CalEEMod.2020.4.0 ("CalEEMod"). (Ex. B, p. 3.) This model, which is used to generate a project's construction and operational emissions, relies on recommended default values based on site specific information related to a number of factors (*Id.*, pp. 3-4.) CEQA requires that any changes to the default values must be justified by substantial evidence. (*Id.*, p. 3.)

SWAPE reviewed the Project's CalEEMod output files and found that the values input into the model were inconsistent with information provided in the SCEA. (Ex. B, p. 4.) This results in an underestimation of the Project's emissions. (*Id.*) As a result, the SCEA's air quality analysis cannot be relied upon to estimate the Project's emissions.

Specifically, SWAPE found that the following values used in the SCEA's air quality analysis were either inconsistent with information provided in the SCEA or otherwise unjustified:

1. Failure to Model All Proposed Land Uses. (Ex. B, p. 2.)
2. Unsubstantiated Reduction to Acres of Grading Value. (Ex. B, pp. 3-4.)
3. Unsubstantiated Reductions to Construction Off-Road Equipment Unit Amounts. (Ex. B, pp. 4-5.)
4. Incorrect Application of Construction-Related Mitigation Measures. (Ex. B, pp. 5-7.)

As a result of these errors in the SCEA, the Project's construction and operational emissions are underestimated and cannot be relied upon to determine the significance of the Project's air quality impacts.

- iii. The SCEA inadequately analyzed the Project's impact on human health from emissions of diesel particulate matter.

The SCEA fails to mention or evaluate the Project's construction-related or operational toxic air contaminant ("TAC") emissions. (Ex. B, p. 7.) Instead, the SCEA concluded that the Project would result in a less-than-significant health risk impact without conducting a quantified

construction or operational health risk assessment ("HRA") for Project construction and operation. (*Id.*)

Furthermore, the SCEA concluded that the cancer risk to nearby, sensitive receptors would be less than SCAQMD's significance threshold of 10 in one million because emissions associated with Project operation and construction would be below SCAQMD's localized significance thresholds. However, SWAPE found that the SCEA's analysis of the Project's health risks were inadequate for several reasons. (Ex. B, pp. 8-9.)

First, the SCEA's localized significance threshold ("LST") only assess impacts of pollutants at a local level, and therefore can only evaluate impacts from criteria pollutants. (*Id.*, p. 8.) The LST therefore does not address impacts from diesel particulate matter ("DPM"), and thus, renders the SCEA inadequate.

Second, the SCEA fails to quantitatively evaluate construction-related and operational TACs or make a reasonable effort to connect these emissions to potential health risk impacts to nearby existing sensitive receptors. (Ex. B, pp. 8-9.) SWAPE identifies potential emissions from both the exhaust stacks of construction equipment and daily vehicle trips. (*Id.*) In failing to connect TAC emissions to potential health risks to nearby receptors, the Project fails to meet the CEQA requirement that projects correlate increases in project-generated emissions to adverse impacts on human health caused by those emissions. (Ex. B, p. 9; *see also Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 510.)

Third, the California Department of Justice recommends the preparation of a quantitative HRA pursuant to the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California, as well as local air district guidelines. OEHHA released its most recent guidance document in 2015 describing which types of projects warrant preparation of an HRA. (*See* "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at*: http://oehha.ca.gov/air/hot_spots/hotspots2015.html.) OEHHA recommends that projects lasting at least 2 months be evaluated for cancer risks to nearby sensitive receptors, a time period which this Project easily exceeds. (Ex. B, p. 9.) The OEHHA document also recommends that if a project is expected to last over 6 months, the exposure should be evaluated throughout the project using a 30-year exposure duration to estimate individual cancer risks. (*Id.*) Based on its extensive experience, SWAPE reasonably assumes that the Project will last at least 30 years, and therefore recommends that health risk impacts from the project be evaluated. (*Id.*) An EIR is therefore required to analyze these impacts. (*Id.*)

Lastly, the SCEA's claim that there will be a less than significant impact without having conducted a qualified construction or operational HRA for nearby sensitive receptors also fails under CEQA requirements. (Ex. B, p. 9.) Thus, an EIR should be prepared to quantify the cumulative excess cancer risk posed by the Project's construction and operation to nearby, existing receptors, and compare it to the SCAQMD threshold of 10 in one million. (*Id.*)

iv. The health risks from construction and operation of the Project exceed

SCAQMD's significance threshold.

SWAPE prepared a screening-level health risk assessment ("HRA") to evaluate potential DPM impacts from the construction and operation of the Project, as opposed to the SCEA's failure to conduct any HRA analysis. (Ex. B, pp. 10-14.) SWAPE used AERSCREEN, the leading screening-level air quality dispersion model. (*Id.* at p. 10.) SWAPE used a sensitive receptor distance of 125 meters and analyzed impacts to individuals at different stages of life based on OEHHA and SCAQMD guidance. (*Id.*, pp. 11-13.)

SWAPE found that the excess cancer risk for infants and children at the closest, sensitive receptor located approximately 125 meters away, over the course of Project construction and operation, is approximately 57.0 and 25.9 in one million. (Ex. B, p. 13.) Moreover, SWAPE found that the excess cancer risk over the course of a residential lifetime is approximately 99.0 in one million. (*Id.*) The infant, child, and lifetime cancer risks exceed the SCAQMD threshold of 10 in one million. (*Id.*, pp. 13-14.) Because a SCEA is only appropriate where all impacts have been mitigated to a level of insignificance, the City must prepare a revised SCEA to mitigate this impact. However, given the substantial evidence of a significant health risk impact from the Project's construction-related and operational emissions, the City should prepare an EIR that includes an HRA.

B. The SCEA's conclusions regarding the Project's noise impacts are not supported by substantial evidence.

The comment of noise expert Deborah Jue is attached as Exhibit C. Ms. Jue has identified several issues with the SCEA. Ms. Jue's concerns are summarized below. (See, Exhibit C.)

After reviewing the proposed Project, SCEA, and related appendices, Ms. Jue concluded that the Project's construction noise impacts are potentially significant for the following reasons and therefore an EIR should be prepared:

- The noise analysis relies on short-term measurements at four locations; these data are not adequate to determine the existing CNEL or range of existing hourly values. The SCEA significance thresholds for noise are based on increases over the ambient. (Table XIII-4, and Appendix G). (Ex. C, p. 1.)
- The SCEA mentions the City of Los Angeles Municipal Code limits on amplified noise (page 5-146), but does not further contain any analysis of the potential impact of music from outdoor amplified sound systems. The SCEA does not appear to include the aggregate effect of sound systems complying with the Municipal Code into a composite noise analysis. Compliance with the municipal codes notwithstanding the noise from music and elevated human voice from active life celebrations are potentially significant and should be discussed in the SCEA. (*Id.*)

- The SCEA cites WHO guidance for interior noise: 45 dBA (events) and 30 dBA Leq, and the SCEA should show that noise from the outdoor event areas will be controlled to comport with these standards. (*Id.*)

Ms. Jue's expert comments constitute substantial evidence of potentially significant construction and operational noise impact as a result of the Project that was not adequately disclosed, analyzed, or mitigated in the IS/MND. Thus, an EIR is required for this Project.

IV. CONCLUSION

For the foregoing reasons, the City should prepare an EIR and recirculate that EIR for public comment prior to any project approvals. We reserve the right to supplement these comments, including but not limited to at public hearings concerning the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist.*, 60 Cal. App. 4th 1109, 1121 (1997).

Sincerely,

A handwritten signature in cursive script, appearing to read "Victoria Yundt".

Victoria Yundt
LOZEAU DRURY LLP

EXHIBIT A



INDOOR ENVIRONMENTAL ENGINEERING



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Date: May 23, 2022

To: Victoria Yundt
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From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: 6521 S. Sepulveda Boulevard Project, Los Angeles, CA
(IEE File Reference: P-4580)

Pages: 18

Indoor Air Quality Impacts

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek. Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments.

The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson, 2011). With respect to indoor air contaminants for which inhalation is the primary route of

exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 $\mu\text{g}/\text{day}$. The NSRL concentration of formaldehyde that represents a daily dose of 40 μg is 2 $\mu\text{g}/\text{m}^3$, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3 , and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 $\mu\text{g}/\text{m}^3$. The median indoor formaldehyde concentration was 36 $\mu\text{g}/\text{m}^3$, and ranged from 4.8 to 136 $\mu\text{g}/\text{m}^3$, which corresponds to a median exceedance of the 2 $\mu\text{g}/\text{m}^3$ NSRL concentration of 18 and a range of 2.3 to 68.

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 $\mu\text{g}/\text{m}^3$, is 180 per million as a result of formaldehyde alone. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the South Coast Air Quality Management District (SCAQMD, 2015).

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment (OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 $\mu\text{g}/\text{m}^3$ to 28% for the Acute REL of 55 $\mu\text{g}/\text{m}^3$.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Singer et. al., 2019), and found that the median indoor formaldehyde in new homes built after 2009 with CARB Phase 2 Formaldehyde ATCM materials had lower indoor formaldehyde concentrations, with a median indoor concentrations of $22.4 \mu\text{g}/\text{m}^3$ (18.2 ppb) as compared to a median of $36 \mu\text{g}/\text{m}^3$ found in the 2007 CNHS. Unlike in the CNHS study where formaldehyde concentrations were measured with pumped DNPH samplers, the formaldehyde concentrations in the HENGH study were measured with passive samplers, which were estimated to under-measure the true indoor formaldehyde concentrations by approximately 7.5%. Applying this correction to the HENGH indoor formaldehyde concentrations results in a median indoor concentration of $24.1 \mu\text{g}/\text{m}^3$, which is 33% lower than the $36 \mu\text{g}/\text{m}^3$ found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 33% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 120 per million for homes built with CARB compliant composite wood products. This median lifetime cancer risk is more than 12 times the OEHHA 10 in a million cancer risk threshold (OEHHA, 2017a).

With respect to the S. Sepulveda Boulevard Project, Los Angeles, CA, the buildings consist of residential spaces.

The residential occupants will potentially have continuous exposure (e.g. 24 hours per day, 52 weeks per year). These exposures are anticipated to result in significant cancer risks

resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in residential construction.

Because these residences will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor residential formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu\text{g}/\text{m}^3$ (Singer et. al., 2020)

Assuming that the residential occupants inhale 20 m^3 of air per day, the average 70-year lifetime formaldehyde daily dose is 482 $\mu\text{g}/\text{day}$ for continuous exposure in the residences. This exposure represents a cancer risk of 120 per million, which is more than 12 times the CEQA cancer risk of 10 per million. For occupants that do not have continuous exposure, the cancer risk will be proportionally less but still substantially over the CEQA cancer risk of 10 per million (e.g. for 12/hour/day occupancy, more than 6 times the CEQA cancer risk of 10 per million).

Appendix A, Indoor Formaldehyde Concentrations and the CARB Formaldehyde ATCM, provides analyses that show utilization of CARB Phase 2 Formaldehyde ATCM materials will not ensure acceptable cancer risks with respect to formaldehyde emissions from composite wood products.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde that meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

The following describes a method that should be used, prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations

resulting from the formaldehyde emissions of specific building materials/furnishings selected exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine, before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed, if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.

2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g., m² of material/m² floor area, units of furnishings/m² floor area) from an inventory of all potential indoor formaldehyde sources, including

flooring, ceiling tiles, furnishings, finishes, insulation, sealants, adhesives, and any products constructed with composite wood products containing urea-formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard).

3.) Calculate the Formaldehyde Emission Rate. For each building material, calculate the formaldehyde emission rate ($\mu\text{g/h}$) from the product of the area-specific formaldehyde emission rate ($\mu\text{g/m}^2\text{-h}$) and the area (m^2) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate ($\mu\text{g/unit-h}$) and the number of units in the IAQ Zone.

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers,” (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods.

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines (OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e., $\mu\text{g/m}^2\text{-h}$) of the product, but rather provide data that the formaldehyde emission rates do not exceed the maximum rate allowed for the certification. Thus, for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than $31 \mu\text{g/m}^2\text{-h}$, but not the actual measured specific emission rate, which may be 3,

18, or 30 µg/m²-h. These area-specific emission rates determined from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area-specific emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (<https://berkeleyanalytical.com>), to measure the formaldehyde emission rate.

4.) Calculate the Total Formaldehyde Emission Rate. For each IAQ Zone, calculate the total formaldehyde emission rate (i.e. µg/h) from the individual formaldehyde emission rates from each of the building material/furnishings as determined in Step 3.

5.) Calculate the Indoor Formaldehyde Concentration. For each IAQ Zone, calculate the indoor formaldehyde concentration (µg/m³) from Equation 1 by dividing the total formaldehyde emission rates (i.e. µg/h) as determined in Step 4, by the design minimum outdoor air ventilation rate (m³/h) for the IAQ Zone.

$$C_{in} = \frac{E_{total}}{Q_{oa}} \text{ (Equation 1)}$$

where:

C_{in} = indoor formaldehyde concentration (µg/m³)

E_{total} = total formaldehyde emission rate ($\mu\text{g/h}$) into the IAQ Zone.

Q_{oa} = design minimum outdoor air ventilation rate to the IAQ Zone (m^3/h)

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 “Calculation of Estimated Building Concentrations” of the California Department of Health “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers”, (CDPH, 2017).

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:

- 1.) reducing the amount materials and/or furnishings that emit formaldehyde
- 2.) substituting a different material with a lower area-specific emission rate of formaldehyde

Ventilation mitigation for formaldehyde emitted from building materials and/or furnishings may include:

- 1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as mitigation

with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Further, we are not asking that the builder “speculate” on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers,” (CDPH, 2017), and use the procedure described earlier above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in the homes were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never open their windows, especially in the winter season. The median 24-hour measurement was 0.26 air changes per hour (ach), with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

According to the Sustainable Communities Environmental Assessment (SCEA), S. Sepulveda Boulevard Project, (CAJA Environmental Services, 2022), the Project is close to roads with moderate to high traffic (e.g., I-405, South Sepulveda Boulevard, South Arizona Avenue, Centinela Avenue, etc.). The SCEA states in Table IV XIII-4 that the existing ambient noise levels range from 50.9 to 68.4 dBA Leq. We note that these short-term measurements, which were conducted on May 13, 2021, are likely lower than pre-pandemic levels, and future levels will likely be significantly higher.

As a result of the high outdoor noise levels, the current project will require a mechanical supply of outdoor air ventilation to allow for a habitable interior environment with closed windows and doors. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within building interiors.

PM_{2.5} Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle traffic associated with this project, are the outdoor concentrations of PM_{2.5}. According to the Sustainable Communities Environmental Assessment (SCEA), S. Sepulveda Boulevard Project, (CAJA Environmental Services, 2022), the Project is located in the South Coast Air Basin, which is a State and Federal non-attainment area for PM_{2.5}.

An air quality analysis should be conducted to determine the concentrations of PM_{2.5} in the outdoor and indoor air that people inhale each day. This air quality analysis needs to consider the cumulative impacts of the project related emissions, existing and projected future emissions from local PM_{2.5} sources (e.g. stationary sources, motor vehicles, and airport traffic) upon the outdoor air concentrations at the Project site. If the outdoor concentrations are determined to exceed the California and National annual average PM_{2.5} exceedance concentration of 12 µg/m³, or the National 24-hour average exceedance concentration of 35 µg/m³, then the buildings need to have a mechanical supply of outdoor air that has air filtration with sufficient removal efficiency, such that the indoor concentrations of outdoor PM_{2.5} particles is less than the California and National PM_{2.5} annual and 24-hour standards.

It is my experience that based on the projected high traffic noise levels, the annual average concentration of PM_{2.5} will exceed the California and National PM_{2.5} annual and 24-hour standards and warrant installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems.

Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins (CARB, 2009). CARB Phase 2 certified composite wood products, or ultra-low emitting formaldehyde (ULEF) resins, do not insure indoor formaldehyde concentrations that are below the CEQA cancer risk of 10 per million. Only composite wood products manufactured with CARB approved no-added formaldehyde (NAF) resins, such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Chemical Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks.

It is important to note that we are not asking that the builder “speculate” on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers”, (CDPH, 2017), and use the procedure described above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing

of formaldehyde.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft² of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants or maintenance personnel, that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

PM_{2.5} Outdoor Air Concentration Mitigation. Install air filtration with sufficient PM_{2.5} removal efficiency (e.g. MERV 13 or higher) to filter the outdoor air entering the mechanical outdoor air supply systems, such that the indoor concentrations of outdoor PM_{2.5} particles are less than the California and National PM_{2.5} annual and 24-hour standards. Install the air filters in the system such that they are accessible for replacement by the occupants or maintenance personnel. Include in the mechanical outdoor air ventilation system manual instructions on how to replace the air filters and the estimated frequency of replacement.

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APPENDIX A

INDOOR FORMALDEHYDE CONCENTRATIONS AND THE CARB FORMALDEHYDE ATCM

With respect to formaldehyde emissions from composite wood products, the CARB ATCM regulations of formaldehyde emissions from composite wood products, do not assure healthful indoor air quality. The following is the stated purpose of the CARB ATCM regulation - *The purpose of this airborne toxic control measure is to “reduce formaldehyde emissions from composite wood products, and finished goods that contain composite wood products, that are sold, offered for sale, supplied, used, or manufactured for sale in California”*. In other words, the CARB ATCM regulations do not “assure healthful indoor air quality”, but rather “reduce formaldehyde emissions from composite wood products”.

Just how much protection do the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products? Definitely some, but certainly the regulations do not “*assure healthful indoor air quality*” when CARB Phase 2 products are utilized. As shown in the Chan 2019 study of new California homes, the median indoor formaldehyde concentration was of $22.4 \mu\text{g}/\text{m}^3$ (18.2 ppb), which corresponds to a cancer risk of 112 per million for occupants with continuous exposure, which is more than 11 times the CEQA cancer risk of 10 per million.

Another way of looking at how much protection the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products is to calculate the maximum number of square feet of composite wood product that can be in a residence without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy.

For this calculation I utilized the floor area (2,272 ft²), the ceiling height (8.5 ft), and the number of bedrooms (4) as defined in Appendix B (New Single-Family Residence Scenario) of the Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1, 2017, California Department of Public Health,

For the outdoor air ventilation rate I used the 2019 Title 24 code required mechanical ventilation rate (ASHRAE 62.2) of 106 cfm (180 m³/h) calculated for this model residence. For the composite wood formaldehyde emission rates I used the CARB ATCM Phase 2 rates.

The calculated maximum number of square feet of composite wood product that can be in a residence, without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 15 ft² (0.7% of the floor area), or
Particle Board – 30 ft² (1.3% of the floor area), or
Hardwood Plywood – 54 ft² (2.4% of the floor area), or
Thin MDF – 46 ft² (2.0 % of the floor area).

For offices and hotels the calculated maximum amount of composite wood product (% of floor area) that can be used without exceeding the CEQA cancer risk of 10 per million for occupants, assuming 8 hours/day occupancy, and the California Mechanical Code minimum outdoor air ventilation rates are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 3.6 % (offices) and 4.6% (hotel rooms), or
Particle Board – 7.2 % (offices) and 9.4% (hotel rooms), or
Hardwood Plywood – 13 % (offices) and 17% (hotel rooms), or
Thin MDF – 11 % (offices) and 14 % (hotel rooms)

Clearly the CARB ATCM does not regulate the formaldehyde emissions from composite wood products such that the potentially large areas of these products, such as for flooring, baseboards, interior doors, window and door trims, and kitchen and bathroom cabinetry, could be used without causing indoor formaldehyde concentrations that result in CEQA

cancer risks that substantially exceed 10 per million for occupants with continuous occupancy.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde that meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

If CARB Phase 2 compliant or ULEF composite wood products are utilized in construction, then the resulting indoor formaldehyde concentrations should be determined in the design phase using the specific amounts of each type of composite wood product, the specific formaldehyde emission rates, and the volume and outdoor air ventilation rates of the indoor spaces, and all feasible mitigation measures employed to reduce this impact (e.g. use less formaldehyde containing composite wood products and/or incorporate mechanical systems capable of higher outdoor air ventilation rates). See the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Alternatively, and perhaps a simpler approach, is to use only composite wood products (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins.

EXHIBIT B



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May 20, 2022

Victoria Yundt
Lozeau | Drury LLP
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Subject: Comments on the 6521 S. Sepulveda Boulevard Project (SCH No. 2022040433)

Dear Ms. Yundt,

We have reviewed the March 2022 Sustainable Communities Environmental Assessment ("SCEA") for the 6521 S. Sepulveda Boulevard Project ("Project") located in the City of Los Angeles ("City"). The Project proposes to demolish all existing buildings, with the exception of a 7,760-square-foot ("SF") restaurant, and construct a 365,623-SF mixed-used building, consisting of 362 units and 3,700-SF of restaurant space, as well as 520 parking spaces, on the 2.205-acre site.

Our review concludes that the SCEA fails to adequately evaluate the Project's air quality and health risk impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality and health risk impacts that the project may have on the environment.

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The SCEA's air quality analysis relies on emissions calculated with the California Emissions Estimator Model ("CalEEMod") Version 2020.4.0 (p. IV-13).¹ CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California

¹ "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), March 2022, available at: <http://www.aqmd.gov/calceemod/download-model>.

Environmental Quality Act (“CEQA”) requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected.

When reviewing the Project’s CalEEMod output files, provided in Appendix B (“AQ & GHG Study”) to the SCEA, we found that several model inputs are not consistent with information disclosed in the SCEA. As a result, the Project’s construction and operational emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Failure to Model All Proposed Land Uses

Review of the CalEEMod output files demonstrates that the “Sepulveda Centinela – Existing” model includes 9,448-SF of restaurant space (see excerpt below) (Appendix B, pp. 1, 22, 36).

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	23.22	1000sqft	0.53	23,223.00	0
Quality Restaurant	9.45	1000sqft	0.22	9,448.00	0
Parking Lot	63.36	1000sqft	1.45	63,359.00	0

Furthermore, according to the SCEA:

“The Project would retain the majority of the Dinah’s Family Restaurant building, including its character-defining features and materials” (p. 1-1).

As the restaurant building is being preserved, the model should have included the existing restaurant space in the proposed operational model. However, review of the CalEEMod output files demonstrates that the “Sepulveda Centinela – Future” model fails to include the existing 9,448-SF of “Quality Restaurant” (see excerpt below) (Appendix B, pp. 50, 86, 115).

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	3.70	1000sqft	0.00	3,700.00	0
Enclosed Parking with Elevator	210.21	1000sqft	0.00	210,205.00	0
Apartments Mid Rise	362.00	Dwelling Unit	2.04	367,156.00	1035

As demonstrated above, the model fails to include the existing restaurant in the proposed operational model. This omission presents an issue, as CalEEMod includes 63 different land use types that are each assigned a distinctive set of energy usage emission factors.² Thus, by failing to include all proposed land use types, the model may underestimate the Project’s construction-related and operational emissions and should not be relied upon to determine Project significance.

² “Appendix D – Default Data Tables.” California Air Pollution Control Officers Association (CAPCOA), June 2021, available at: <https://www.aqmd.gov/caleemod/user's-guide>, p. D-305.

Unsubstantiated Reduction to Acres of Grading Value

Review of the CalEEMod output files demonstrates that the “Sepulveda Centinela – Future” model includes a manual reduction to the default acres of the grading value (see excerpt below) (Appendix B, pp. 51, 87, 116).

Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	98.00	2.04

As you can see from the excerpt above, the acres of grading value is reduced by approximately 98%, from the default value of 98- to 2.04-acres. As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.³ According to the “User Entered Comments & Non-Default Data” table, the justification provided for this change is:

“Applicant info” (Appendix B, pp. 50, 86, 115).

However, this change remains unsubstantiated as the SCEA and associated documents fail to mention or justify the revised acres of grading value. This is incorrect, as according to the CalEEMod User’s Guide:

“CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA.”⁴

Here, as the SCEA fails to provide substantial evidence to support the revised acres of grading value, we cannot verify the change. Additionally, the CalEEMod User’s Guide states:

“[T]he dimensions (e.g., length and width) of the grading site have no impact on the calculation, only the total area to be graded. In order to properly grade a piece of land multiple passes with equipment may be required. The acres is based on the equipment list and days in grading or site preparation phase according to the anticipated maximum number of acres a given piece of equipment can pass over in an 8-hour workday.”⁵

As demonstrated above, the acres of grading value is based on construction equipment and the length of the grading and site preparation phases. Thus, as the dimensions of the Project site have no impact on the acres of grading value, the reduction remains unsupported.

This unsubstantiated reduction presents an issue, as CalEEMod uses the acres of grading value to estimate the dust emissions associated with grading.⁶ Thus, by including an unsubstantiated reduction

³ “CalEEMod User’s Guide Version 2020.4.0.” California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user's-guide>, p. 1, 14.

⁴ “CalEEMod User’s Guide Version 2020.4.0.” California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user's-guide>, p. 13-14.

⁵ “Appendix A Calculation Details for CalEEMod.” California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <http://www.aqmd.gov/caleemod/user's-guide>, p. 9.

⁶ “Appendix A – Calculation Details for CalEEMod.” California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user's-guide>, p. 9.

to the default acres of grading value, the model may underestimate the Project’s construction-related emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reductions to Construction Off-Road Equipment Unit Amounts

Review of the CalEEMod output files demonstrates that the “Sepulveda Centinela – Future” model includes several changes to the default off-road construction equipment unit amounts (see excerpt below) (Appendix B, pp. 52, 88, 117).

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

As a result of these changes, the model includes the following off-road construction equipment (see excerpt below) (Appendix B, pp. 57, 92-93, 121-122).

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Grading	Crawler Tractors	1	8.00	212	0.43
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.⁷ According to the “User Entered Comments & Non-Default Data” table, the justifications provided for these changes are:

“Consultant assumptions” (Appendix B, pp. 50, 86, 115).

⁷ “CalEEMod User’s Guide Version 2020.4.0.” California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user-s-guide>, p. 1, 14.

However, this change remains unsubstantiated as the SCEA and associated documents fail to mention or justify the revised off-road equipment unit amounts whatsoever. As previously mentioned, according to the CalEEMod User's Guide:

"CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA."⁸

Here, as the SCEA fails to provide substantial evidence to support the revised unit amounts, we cannot verify the changes.

These unsubstantiated reductions present an issue, as CalEEMod uses the off-road construction equipment to calculate the emissions associated with construction.⁹ By including unsubstantiated reductions to the default off-road construction equipment unit amounts, the model may underestimate the Project's construction-related emissions and should not be relied upon to determine Project significance.

Incorrect Application of Construction-Related Mitigation Measures

Review of the CalEEMod output files demonstrates that the "Sepulveda Centinela – Future" model includes the following construction-related mitigation measures (see excerpt below) (Appendix B, pp. 58, 93, 122).

3.1 Mitigation Measures Construction

Water Exposed Area
Clean Paved Roads

As a result, the model includes a clean paved road moisture content reduction of 80% (see excerpt below) (Appendix B, pp. 51, 87, 116).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.¹⁰ According to the "User Entered Comments & Non-Default Data" table, the justification provided for these inclusions is:

⁸ "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user's-guide>, p. 13-14.

⁹ "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user's-guide>, p. 32.

¹⁰ "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user's-guide>, p. 2, 9

“Assumes SCAQMD Rule 403 control efficiency for trackout PM reduction” (Appendix B, pp. 51, 87, 116).

Furthermore, regarding Project compliance with fugitive dust regulations, the SCEA states:

“All projects in the SCAQMD jurisdiction are subject to SCAQMD rules and regulations, including, but not limited to, the following: [..]

- Rule 403 Fugitive Dust: This rule mandates that projects reduce the amount of particulate matter entrained in the ambient air as a result of fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions from any active operation, open storage pile, or disturbed surface area” (p. 5-13).

However, the inclusion of the above-mentioned construction-related mitigation measures remains unsubstantiated for three reasons.

First, the inclusion of the construction-related mitigation measures, based on the Project’s compliance with SCAQMD Rule 403, is unsupported. According to the Association of Environmental Professionals (“AEP”) *CEQA Portal Topic Paper* on mitigation measures:

“By definition, mitigation measures are not part of the original project design. Rather, mitigation measures are actions taken by the lead agency to reduce impacts to the environment resulting from the original project design. Mitigation measures are identified by the lead agency after the project has undergone environmental review and are above-and-beyond existing laws, regulations, and requirements that would reduce environmental impacts.”¹¹

As stated in excerpt above, mitigation measures “are not part of the original project design” and are intended to go “above-and-beyond” existing regulatory requirements. As such, the inclusion of these measures, based solely on SCAQMD Rule 403, is unsubstantiated.

Second, according to the above-mentioned AEP report:

“While not ‘mitigation’, a good practice is to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP). Often the MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact.”¹²

¹¹ “CEQA Portal Topic Paper Mitigation Measures.” Association of Environmental Professionals (AEP), February 2020, available at: <https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf>, p. 5.

¹² “CEQA Portal Topic Paper Mitigation Measures.” Association of Environmental Professionals (AEP), February 2020, available at: <https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf>, p. 6.

As stated in the excerpt above, project design features (“PDFs”) that are not formally included as mitigation measures may be eliminated from the Project’s design altogether. Thus, as the above-mentioned construction-related measures are not formally included as mitigation measures, we cannot guarantee that they would be implemented, monitored, and enforced on the Project site.

Third, simply because the SCEA references SCAQMD Rule 403 does not justify the inclusion of the above-mentioned construction-related mitigation measures in the model. Specifically, according to SCAQMD Rule 403, Projects can either water unpaved roads 3 times per day, water unpaved roads 1 time per day and limit vehicle speeds to 15 mph or apply a chemical stabilizer (see excerpt below).¹³

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
Unpaved Roads	<p>(4a) Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR</p> <p>(4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR</p> <p>(4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.</p>

As you can see in the above excerpt, to simply comply with SCAQMD Rule 403, the Project may either water unpaved roads 3 times per day, water unpaved roads 1 time per day and limit vehicle speeds to 15 mph, or apply a chemical stabilizer. Thus, the “Water Exposed Area” and “Clean Paved Roads” measures are not both explicitly required by SCAQMD Rule 403, and therefore should not be included in the model. By incorrectly including several construction-related mitigation measures without properly committing to their implementation, the model may underestimate the Project’s construction-related emissions and should not be relied upon to determine Project significance.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The SCEA concludes that the Project would have a less-than-significant health risk impact without conducting a quantified construction or operational health risk analysis (“HRA”). Regarding the health risk impacts associated with Project construction, the SCEA states:

“The primary TAC that would be generated by construction activities is diesel PM, which would be released from the exhaust pipes of diesel-powered construction vehicles and equipment. According to SCAQMD methodology, health risks from carcinogenic air toxics such as diesel PM are usually quantified in terms of individual cancer risk, which is the likelihood that a person exposed to concentrations of TACs over a 30-year period every day will contract cancer based on standard risk-assessment methodology. However, the anticipated duration of construction activities associated with the Project’s implementation is only approximately 41 months, and

¹³ “Rule 403. Fugitive Dust.” South Coast Air Quality Management District (SCAQMD), June 2005, *available at*: <http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf>, p. 403-21, Table 2.

daily diesel PM emissions would vary considerably day by day, and by phase. As shown on Table III-8, the Project's maximum daily PM emissions, which include exhaust PM, would not exceed applicable regional thresholds and LSTs. Given these considerations, TAC emissions from the Project's construction phase would be less than significant" (p. 5-28).

As demonstrated above, the SCEA concludes a less-than-significant health risk impact during Project construction because the Project's maximum particulate matter emissions would be below regional thresholds. Furthermore, regarding the health risk impacts associated with Project operation, the SCEA states:

"As also discussed previously, the Project's operational emissions would not exceed SCAQMD regional significance thresholds or LSTs. Additionally, the Project does not propose typical sources of acutely and chronically hazardous TACs such as industrial manufacturing processes, automotive repair facilities, or warehouse distribution facilities. As a result, the Project's operational phase emissions would not warrant the need for a health risk assessment, and this impact would be less than significant" (p. 5-29).

As demonstrated above, the SCEA concludes a less-than-significant health risk impact during Project operation because the Project would not include land uses that generate substantial amounts of toxic air contaminant ("TAC") emissions. However, the SCEA's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for four reasons.

First, the SCEA's claim that "the Project's maximum daily PM emissions, which include exhaust PM, would not exceed applicable regional thresholds and LSTs" is insufficient (p. 5-28). The use of an LST analysis to determine the health risk impacts posed to nearby, existing sensitive receptors as a result of the Project's construction-related TAC emissions is incorrect. While the LST method assesses the impact of pollutants at a local level, it only evaluates impacts from criteria air pollutants. According to the *Final Localized Significance Threshold Methodology* document prepared by the SCAQMD, LST analyses are only applicable to NO_x, CO, PM₁₀, and PM_{2.5} emissions, which are collectively referred to as criteria air pollutants.¹⁴ Because the LST method can only be applied to criteria air pollutants, this method cannot be used to determine whether emissions from TACs, specifically DPM, a known human carcinogen, would result in a significant health risk impact to nearby sensitive receptors. As a result, health impacts from exposure to TACs, such as DPM, were not analyzed, thus leaving a gap in the SCEA's analysis.

Second, by failing to prepare a quantified construction and operational HRA, the Project is inconsistent with CEQA's requirement to make "a reasonable effort to substantively connect a project's air quality impacts to likely health consequences."¹⁵ This poses a problem, as construction of the Project would produce DPM emissions through the exhaust stacks of construction equipment over a duration of approximately 41 months (p. 5-26). Furthermore, operation of the Project is expected to generate 1,154

¹⁴ "Final Localized Significance Threshold Methodology." SCAQMD, Revised July 2008, *available at*: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf>.

¹⁵ "Sierra Club v. County of Fresno." Supreme Court of California, December 2018, *available at*: <https://cegaportal.org/decisions/1907/Sierra%20Club%20v.%20County%20of%20Fresno.pdf>.

net new daily vehicle trips, which would produce additional exhaust emissions and continue to expose nearby, existing sensitive receptors to DPM emissions (p. 5-156). However, the SCEA fails to evaluate the TAC emissions associated with Project construction and operation or indicate the concentrations at which such pollutants would trigger adverse health effects. Thus, without making a reasonable effort to connect the Project's TAC emissions to the potential health risks posed to nearby receptors, the SCEA is inconsistent with CEQA's requirement to correlate Project-generated emissions with potential adverse impacts on human health.

Third, the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California, released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* in February 2015. This guidance document describes the types of projects that warrant the preparation of an HRA. Specifically, OEHHA recommends that all short-term projects lasting at least 2 months assess cancer risks.¹⁶ Furthermore, according to OEHHA:

"Exposure from projects lasting more than 6 months should be evaluated for the duration of the project. In all cases, for assessing risk to residential receptors, the exposure should be assumed to start in the third trimester to allow for the use of the ASFs (OEHHA, 2009)."¹⁷

Thus, as the Project's anticipated construction duration exceeds the 2-month and 6-month requirements set forth by OEHHA, construction of the Project meets the threshold warranting a quantified HRA under OEHHA guidance and should be evaluated for the entire 32-month construction period. Furthermore, OEHHA recommends that an exposure duration of 30 years should be used to estimate the individual cancer risk at the maximally exposed individual resident ("MEIR").¹⁸ While the SCEA fails to provide the expected lifetime of the proposed Project, we can reasonably assume that the Project would operate for at least 30 years, if not more. Therefore, operation of the Project also exceeds the 2-month and 6-month requirements set forth by OEHHA and should be evaluated for the entire 30-year residential exposure duration, as indicated by OEHHA guidance. These recommendations reflect the most recent state health risk policies, and as such, an EIR should be prepared to include an analysis of health risk impacts posed to nearby sensitive receptors from Project-generated DPM emissions.

Fourth, by claiming a less-than-significant impact without conducting a quantified construction or operational HRA for nearby, existing sensitive receptors, the SCEA fails to compare the Project's excess cancer risk to the SCAQMD's specific numeric threshold of 10 in one million.¹⁹ Thus, in accordance with the most relevant guidance, an assessment of the health risk posed to nearby, existing receptors as a result of Project construction and operation should be conducted.

¹⁶ "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>, p. 8-18.

¹⁷ "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>, p. 8-18.

¹⁸ "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>, p. 2-4.

¹⁹ "South Coast AQMD Air Quality Significance Thresholds." SCAQMD, April 2019, available at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>.

Screening-Level Analysis Demonstrates Significant Impacts

In order to conduct our screening-level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.²⁰ The model replaced SCREEN3, and AERSCREEN is included in the OEHHA and the California Air Pollution Control Officers Associated (“CAPCOA”) guidance as the appropriate air dispersion model for Level 2 health risk screening assessments (“HRSAs”).^{21, 22} A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary HRA of the Project’s construction and operational health risk impact to residential sensitive receptors using the annual PM₁₀ exhaust estimates from the SCEA’s CalEEMod output files. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life.²³ The SCEA’s CalEEMod model indicates that construction activities will generate approximately 402 pounds of DPM over the 1,153-day construction period.²⁴ The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

$$\text{Emission Rate} \left(\frac{\text{grams}}{\text{second}} \right) = \frac{402.6 \text{ lbs}}{1153 \text{ days}} \times \frac{453.6 \text{ grams}}{\text{lbs}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ hour}}{3,600 \text{ seconds}} = \mathbf{0.00193 \text{ g/s}}$$

Using this equation, we estimated a construction emission rate of 0.00193 grams per second (“g/s”). Subtracting the 1,153-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project’s operational DPM for an additional 26.84 years. The SCEA’s operational CalEEMod emissions indicate that operational activities will generate approximately 69 net pounds of DPM per year throughout operation.²⁵ Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$\text{Emission Rate} \left(\frac{\text{grams}}{\text{second}} \right) = \frac{69.0 \text{ lbs}}{365 \text{ days}} \times \frac{453.6 \text{ grams}}{\text{lbs}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ hour}}{3,600 \text{ seconds}} = \mathbf{0.000992 \text{ g/s}}$$

²⁰ “AERSCREEN Released as the EPA Recommended Screening Model,” U.S. EPA, April 2011, *available at*: http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf

²¹ “Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, *available at*: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>.

²² “Health Risk Assessments for Proposed Land Use Projects.” CAPCOA, July 2009, *available at*: http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.

²³ “Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, *available at*: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>, p. 8-18.

²⁴ See Attachment A for health risk calculations.

²⁵ Existing emissions subtracted from operational emissions.

Using this equation, we estimated an operational emission rate of 0.000992 g/s. Construction and operation were simulated as a 2.205-acre rectangular area source in AERSCREEN, with approximate dimensions of 134- by 67-meters. A release height of three meters was selected to represent the height of stacks of operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution. The population of Los Angeles was obtained from U.S. 2020 Census data.²⁶

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project Site. The United States Environmental Protection Agency (“U.S. EPA”) suggests that the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10% in screening procedures.²⁷ According to the SCEA the nearest sensitive receptor is a single-family residence located 350 feet, or roughly 125 meters from the Project site (p. 5-19). Thus, the single-hour concentration estimated by AERSCREEN for Project construction is approximately 1.735 $\mu\text{g}/\text{m}^3$ DPM at approximately 125 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.1735 $\mu\text{g}/\text{m}^3$ for Project construction at the MEIR. For Project operation, the single-hour concentration estimated by AERSCREEN is 0.9390 $\mu\text{g}/\text{m}^3$ DPM at approximately 125 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.0939 $\mu\text{g}/\text{m}^3$ for Project operation at the MEIR.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA, as recommended by SCAQMD.²⁸ Specifically, guidance from OEHHA and the California Air Resources Board (“CARB”) recommends the use of a standard point estimate approach, including high-point estimate (i.e. 95th percentile) breathing rates and age sensitivity factors (“ASF”) in order to account for the increased sensitivity to carcinogens during early-in-life exposure and accurately assess risk for susceptible subpopulations such as children. The residential exposure parameters, such as the daily breathing rates (“BR/BW”), exposure duration (“ED”), age sensitivity factors (“ASF”), fraction of time at home (“FAH”), and exposure frequency (“EF”) utilized for the various age groups in our screening-level HRA are as follows:

²⁶ “Los Angeles.” U.S. Census Bureau, 2020, *available at*: <https://datacommons.org/place/geoid/0644000>.

²⁷ “Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised.” U.S. EPA, October 1992, *available at*: http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf.

²⁸ “AB 2588 and Rule 1402 Supplemental Guidelines.” SCAQMD, October 2020, *available at*: <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines.pdf?sfvrsn=19>, p. 2.

Exposure Assumptions for Residential Individual Cancer Risk						
Age Group	Breathing Rate (L/kg-day) ²⁹	Age Sensitivity Factor ³⁰	Exposure Duration (years)	Fraction of Time at Home ³¹	Exposure Frequency (days/year) ³²	Exposure Time (hours/day)
3rd Trimester	361	10	0.25	1	350	24
Infant (0 - 2)	1090	10	2	1	350	24
Child (2 - 16)	572	3	14	1	350	24
Adult (16 - 30)	261	1	14	0.73	350	24

For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose for each age group. Once determined, contaminant dose is multiplied by the cancer potency factor (“CPF”) in units of inverse dose expressed in milligrams per kilogram per day (mg/kg/day⁻¹) to derive the cancer risk estimate. Therefore, to assess exposures, we utilized the following dose algorithm:

$$Dose_{AIR, per\ age\ group} = C_{air} \times EF \times \left[\frac{BR}{BW} \right] \times A \times CF$$

where:

Dose_{AIR} = dose by inhalation (mg/kg/day), per age group

C_{air} = concentration of contaminant in air (µg/m³)

EF = exposure frequency (number of days/365 days)

BR/BW = daily breathing rate normalized to body weight (L/kg/day)

A = inhalation absorption factor (default = 1)

CF = conversion factor (1x10⁻⁶, µg to mg, L to m³)

To calculate the overall cancer risk, we used the following equation for each appropriate age group:

²⁹ “Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics ‘Hot Spots’ Information and Assessment Act.” SCAQMD, October 2020, available at: <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines.pdf?sfvrsn=19>, p. 19; see also “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>.

³⁰ “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>, p. 8-5 Table 8.3.

³¹ “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>, p. 5-24.

³² “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>, p. 5-24.

$$Cancer\ Risk_{AIR} = Dose_{AIR} \times CPF \times ASF \times FAH \times \frac{ED}{AT}$$

where:

Dose_{AIR} = dose by inhalation (mg/kg/day), per age group

CPF = cancer potency factor, chemical-specific (mg/kg/day)⁻¹

ASF = age sensitivity factor, per age group

FAH = fraction of time at home, per age group (for residential receptors only)

ED = exposure duration (years)

AT = averaging time period over which exposure duration is averaged (always 70 years)

Consistent with the 1,153-day construction schedule, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years), entire infantile stage of life (0 – 2 years), and the first 0.91 years of the child stage of life (2 – 16 years). The annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the latter 13.09 years of the child stage of life and the entire adult stage of life (16 – 30 years). The results of our calculations are shown in the table below.

The Maximally Exposed Individual at an Existing Residential Receptor				
Age Group	Emissions Source	Duration (years)	Concentration (ug/m3)	Cancer Risk
3rd Trimester	Construction	0.25	0.1735	2.36E-06
Infant (0 - 2)	Construction	2	0.1735	5.70E-05
	Construction	0.91	0.1735	4.08E-06
	Operation	13.09	0.0939	3.18E-05
Child (2 - 16)	Total	14		3.59E-05
Adult (16 - 30)	Operation	14	0.0939	3.77E-06
Lifetime		30		9.90E-05

As demonstrated in the table above, the excess cancer risks for the 3rd trimester of pregnancy, infants, children, and adults at the MEIR located approximately 125 meters away, over the course of Project construction and operation, are approximately 2.36, 57.0, 25.9, and 3.77 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years) is approximately 99.0 in one million. The infant, child, and lifetime cancer risks exceed the SCAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the SCEA.

Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. The purpose of the screening-level HRA is to demonstrate the potential link between Project-generated emissions and adverse health risk impacts. According to the U.S. EPA:

“EPA’s Exposure Assessment Guidelines recommend completing exposure assessments iteratively using a tiered approach to ‘strike a balance between the costs of adding detail and refinement to an assessment and the benefits associated with that additional refinement’ (U.S. EPA, 1992).

In other words, an assessment using basic tools (e.g., simple exposure calculations, default values, rules of thumb, conservative assumptions) can be conducted as the first phase (or tier) of the overall assessment (i.e., a screening-level assessment).

The exposure assessor or risk manager can then determine whether the results of the screening-level assessment warrant further evaluation through refinements of the input data and exposure assumptions or by using more advanced models.”

As demonstrated above, screening-level analyses warrant further evaluation in a refined modeling approach. Thus, as our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, an EIR should be prepared to include a refined health risk analysis which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.

A handwritten signature in blue ink that reads "Paul Rosenfeld". The signature is written in a cursive, flowing style.

Paul E. Rosenfeld, Ph.D.

Attachment A: Health Risk Calculations
Attachment B: AERSCREEN Output Files
Attachment C: Matt Hagemann CV
Attachment D: Paul E. Rosenfeld CV

Construction		
2023		Total
Annual Emissions (tons/year)	0.0511	Total DPM (lbs) 402.620274
Daily Emissions (lbs/day)	0.28	Total DPM (g) 182628.5563
Construction Duration (days)	365	Emission Rate (g/s) 0.001833267
Total DPM (lbs)	102.2	Release Height (meters) 3
Total DPM (g)	46357.92	Total Acreage 2.205
Start Date	1/1/2023	Max Horizontal (meters) 133.59
End Date	1/1/2024	Min Horizontal (meters) 66.80
Construction Days	365	Initial Vertical Dimension (meters) 1.5
2024		Setting Urban
Annual Emissions (tons/year)	0.0753	Population 3,973,278
Daily Emissions (lbs/day)	0.41260274	Start Date 1/1/2023
Construction Duration (days)	366	End Date 2/27/2026
Total DPM (lbs)	151.0126027	Total Construction Days 1153
Total DPM (g)	68499.3166	Total Years of Construction 3.16
Start Date	1/1/2024	Total Years of Operation 26.84
End Date	1/1/2025	
Construction Days	366	
2025		
Annual Emissions (tons/year)	0.0703	
Daily Emissions (lbs/day)	0.385205479	
Construction Duration (days)	365	
Total DPM (lbs)	140.6	
Total DPM (g)	63776.16	
Start Date	1/1/2025	
End Date	1/1/2026	
Construction Days	365	
2026		
Annual Emissions (tons/year)	0.0282	
Daily Emissions (lbs/day)	0.154520548	
Construction Duration (days)	57	
Total DPM (lbs)	8.807671233	
Total DPM (g)	3995.159671	
Start Date	1/1/2026	
End Date	2/27/2026	
Construction Days	57	

Operation	
Emission Rate	
Annual Emissions (tons/year)	0.0345
Daily Emissions (lbs/day)	0.189041096
Total DPM (lbs)	69.00
Emission Rate (g/s)	0.000992466
Release Height (meters)	3
Total Acreage	2.205
Max Horizontal (meters)	133.59
Min Horizontal (meters)	66.80
Initial Vertical Dimension (meters)	1.5
Setting	Urban
Population	3,973,278

Start date and time 05/17/22 16:47:01

AERSCREEN 21112

Sepulveda Centinela - Construction

Sepulveda Centinela - Construction

----- DATA ENTRY VALIDATION -----

METRIC

ENGLISH

** AREADATA **

Emission Rate: 0.183E-02 g/s 0.145E-01 lb/hr

Area Height: 3.00 meters 9.84 feet

Area Source Length: 133.59 meters 438.29 feet

Area Source Width: 66.80 meters 219.16 feet

Vertical Dimension: 1.50 meters 4.92 feet

Model Mode: URBAN

Population: 3973278

Dist to Ambient Air: 1.0 meters 3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u^*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

2022.05.17_DinahsSepulveda_AERSCREEN_Construction.out

*** AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 05/17/22 16:48:27

Running AERMOD

Processing Winter

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 30

***** WARNING MESSAGES *****

*** NONE ***

Running AERMOD

Processing Spring

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 30

***** WARNING MESSAGES *****

*** NONE ***

Running AERMOD

Processing Summer

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 30

***** WARNING MESSAGES *****

*** NONE ***

Running AERMOD

Processing Autumn

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 30

***** WARNING MESSAGES *****

*** NONE ***

FLOWSECTOR ended 05/17/22 16:48:35

REFINE started 05/17/22 16:48:35

AERMOD Finishes Successfully for REFINE stage 3 Winter sector 0

***** WARNING MESSAGES *****

*** NONE ***

REFINE ended 05/17/22 16:48:36

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

Ending date and time 05/17/22 16:48:38

Concentration			Distance		Elevation		Diag	Season/Month		Zo sector		Date	
H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	HT
REF	TA	HT											
	0.37984E+01		1.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.42998E+01		25.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.46594E+01		50.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
*	0.48529E+01		67.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.44116E+01		75.00		0.00	20.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.24599E+01		100.00		0.00	20.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.17345E+01		125.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.13187E+01		150.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.10514E+01		175.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.86722E+00		200.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.73309E+00		225.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.63114E+00		250.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.55238E+00		275.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.48869E+00		300.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.43688E+00		325.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0
	310.0	2.0											
	0.39414E+00		350.00		0.00	0.0		Winter		0-360		10011001	
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50	10.0

310.0	2.0										
0.35814E+00	375.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.32737E+00	400.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.30100E+00	425.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.27816E+00	450.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.25813E+00	475.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.24049E+00	500.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.22488E+00	525.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.21088E+00	550.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.19832E+00	575.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.18702E+00	600.00	0.00	5.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.17681E+00	625.00	0.00	5.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.16752E+00	650.00	0.00	5.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.15906E+00	675.00	0.00	5.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.15132E+00	700.00	0.00	5.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.14421E+00	725.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.13767E+00	750.00	0.00	0.0		Winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.13163E+00	775.00	0.00	0.0		Winter	0-360	10011001				

1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.12605E+00		800.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.12086E+00		825.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.11602E+00		850.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.11150E+00		875.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.10728E+00		900.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.10332E+00		925.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.99595E-01		950.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.96097E-01		975.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.92806E-01		1000.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.89707E-01		1025.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.86783E-01		1050.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.84020E-01		1075.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.81408E-01		1100.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.78932E-01		1125.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.76585E-01		1150.00		0.00	10.0		Winter	0-360	10011001	
-1.30	0.043										

0.72239E-01	1200.00	0.00	10.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.70223E-01	1225.00	0.00	10.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.68542E-01	1250.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.66704E-01	1275.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.64950E-01	1300.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.63274E-01	1325.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.61672E-01	1350.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.60139E-01	1375.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.58670E-01	1400.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.57263E-01	1425.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.55913E-01	1450.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.54617E-01	1475.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.53373E-01	1500.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.52177E-01	1525.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.51026E-01	1550.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.49918E-01	1575.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.48852E-01	1600.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		

310.0	2.0											
0.47825E-01	1625.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.46834E-01	1650.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.45878E-01	1675.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.44956E-01	1700.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.44065E-01	1725.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.43204E-01	1750.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.42372E-01	1775.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.41568E-01	1800.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.40789E-01	1825.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.40036E-01	1850.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.39306E-01	1875.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.38599E-01	1900.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.37914E-01	1924.99	0.00	5.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.37249E-01	1950.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.36605E-01	1975.00	0.00	5.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.35979E-01	2000.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.35372E-01	2025.00	0.00	5.0	Winter	0-360	10011001						

-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.34782E-01		2050.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.34210E-01		2075.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.33653E-01		2100.00		0.00	15.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.33112E-01		2124.99		0.00	25.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.32586E-01		2150.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.32074E-01		2175.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.31576E-01		2200.00		0.00	20.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.31091E-01		2225.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.30619E-01		2250.00		0.00	15.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.30159E-01		2275.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.29711E-01		2300.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.29275E-01		2325.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.28850E-01		2350.00		0.00	25.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.28435E-01		2375.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.28031E-01		2400.00		0.00	0.0		Winter	0-360	10011001	
-1.30</											

0.27251E-01	2449.99	0.00	25.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.26875E-01	2475.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.26507E-01	2500.00	0.00	15.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.26148E-01	2525.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.25798E-01	2550.00	0.00	25.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.25456E-01	2575.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.25121E-01	2600.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.24794E-01	2625.00	0.00	20.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.24474E-01	2650.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.24162E-01	2675.00	0.00	25.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.23856E-01	2700.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.23557E-01	2725.00	0.00	20.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.23264E-01	2750.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.22977E-01	2775.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.22697E-01	2800.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.22422E-01	2825.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.22154E-01	2850.00	0.00	20.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		

310.0	2.0											
0.21890E-01	2875.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.21632E-01	2900.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.21380E-01	2925.00	0.00	30.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.21132E-01	2950.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.20889E-01	2975.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.20651E-01	3000.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.20418E-01	3025.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.20189E-01	3050.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.19965E-01	3075.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.19745E-01	3100.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.19529E-01	3125.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.19317E-01	3150.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.19109E-01	3175.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.18905E-01	3200.00	0.00	5.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.18705E-01	3225.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.18508E-01	3250.00	0.00	5.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.18315E-01	3275.00	0.00	0.0	Winter	0-360	10011001						

1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.18125E-01		3300.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.17939E-01		3325.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.17756E-01		3350.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.17576E-01		3375.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.17399E-01		3400.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.17226E-01		3425.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.17055E-01		3450.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.16888E-01		3475.00		0.00	20.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.16723E-01		3500.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.16561E-01		3525.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.16401E-01		3550.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.16244E-01		3575.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.16090E-01		3600.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.15938E-01		3625.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.15789E-01		3650.00		0.00	0.0		Winter	0-360	10011001	
-1.30											

0.15498E-01	3700.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.15356E-01	3725.00	0.00	15.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.15216E-01	3750.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.15078E-01	3775.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.14943E-01	3800.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.14809E-01	3825.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.14678E-01	3850.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.14548E-01	3875.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.14421E-01	3900.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.14295E-01	3925.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.14172E-01	3950.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.14050E-01	3975.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.13930E-01	4000.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.13811E-01	4025.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.13695E-01	4050.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.13580E-01	4075.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.13467E-01	4100.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		

310.0	2.0											
0.13355E-01	4125.00	0.00	5.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.13245E-01	4150.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.13137E-01	4175.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.13030E-01	4200.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.12925E-01	4225.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.12821E-01	4250.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.12718E-01	4275.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.12617E-01	4300.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.12518E-01	4325.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.12419E-01	4350.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.12322E-01	4375.00	0.00	5.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.12227E-01	4400.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.12132E-01	4425.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.12039E-01	4450.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.11947E-01	4475.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.11856E-01	4500.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.11767E-01	4525.00	0.00	0.0	Winter	0-360	10011001						

1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.11678E-01		4550.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.11591E-01		4575.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.11505E-01		4600.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.11420E-01		4625.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.11336E-01		4650.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.11253E-01		4675.00		0.00	15.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.11172E-01		4700.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.11091E-01		4725.00		0.00	25.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.11011E-01		4750.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.10932E-01		4775.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.10854E-01		4800.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.10778E-01		4825.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.10702E-01		4850.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.10627E-01		4875.00		0.00	30.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.10553E-01		4900.00		0.00	5.0		Winter	0-360	10011001	
-1.30											

0.10407E-01	4950.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0
310.0 2.0						
0.10335E-01	4975.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0
310.0 2.0						
0.10265E-01	5000.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0
310.0 2.0						

Start date and time 05/17/22 16:49:27

AERSCREEN 21112

Sepulveda Centinela - Operations

----- DATA ENTRY VALIDATION -----

METRIC

ENGLISH

** AREADATA **

Emission Rate: 0.992E-03 g/s 0.788E-02 lb/hr

Area Height: 3.00 meters 9.84 feet

Area Source Length: 133.59 meters 438.29 feet

Area Source Width: 66.80 meters 219.16 feet

Vertical Dimension: 1.50 meters 4.92 feet

Model Mode: URBAN

Population: 3973278

Dist to Ambient Air: 1.0 meters 3. feet

** BUILDING DATA **

No Building Downwash Parameters

**** TERRAIN DATA ****

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

**** FUMIGATION DATA ****

No fumigation requested

**** METEOROLOGY DATA ****

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u^*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

2022.05.17_DinahsSepulveda_AERSCREEN_Operations.out

*** AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 05/17/22 16:50:32

Running AERMOD

Processing Winter

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 30

***** WARNING MESSAGES *****

*** NONE ***

Running AERMOD

Processing Spring

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 30

***** WARNING MESSAGES *****

*** NONE ***

Running AERMOD

Processing Summer

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 30

***** WARNING MESSAGES *****

*** NONE ***

Running AERMOD

Processing Autumn

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 30

***** WARNING MESSAGES *****

*** NONE ***

FLOWSECTOR ended 05/17/22 16:50:40

REFINE started 05/17/22 16:50:40

AERMOD Finishes Successfully for REFINE stage 3 Winter sector 0

***** WARNING MESSAGES *****

*** NONE ***

REFINE ended 05/17/22 16:50:41

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

Ending date and time 05/17/22 16:50:43

Concentration			Distance		Elevation	Diag	Season/Month		Zo sector		Date	
H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
REF	TA	HT										HT
	0.20564E+01		1.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.23279E+01		25.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.25225E+01		50.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
*	0.26273E+01		67.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.23883E+01		75.00		0.00	20.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.13317E+01		100.00		0.00	20.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.93903E+00		125.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.71390E+00		150.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.56919E+00		175.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.46950E+00		200.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.39688E+00		225.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.34169E+00		250.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.29905E+00		275.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.26457E+00		300.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.23652E+00		325.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0											
	0.21338E+00		350.00		0.00	0.0		Winter		0-360		10011001
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35	0.50	10.0

310.0	2.0	0.19389E+00	375.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.17723E+00	400.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.16295E+00	425.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.15059E+00	450.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.13974E+00	475.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.13020E+00	500.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.12175E+00	525.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.11417E+00	550.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.10737E+00	575.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.10125E+00	600.00	0.00	5.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.95720E-01	625.00	0.00	5.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.90694E-01	650.00	0.00	5.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.86114E-01	675.00	0.00	5.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.81923E-01	700.00	0.00	5.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.78073E-01	725.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.74532E-01	750.00	0.00	0.0	Winter	0-360	10011001
-1.30	0.043	-9.000	0.020	-999.	21.	6.0 1.000 1.50	0.35	0.50 10.0
310.0	2.0	0.71264E-01	775.00	0.00	0.0	Winter	0-360	10011001

1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.68238E-01		800.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.65431E-01		825.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.62812E-01		850.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.60366E-01		875.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.58081E-01		900.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.55936E-01		925.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.53919E-01		950.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.52025E-01		975.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.50244E-01		1000.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.48566E-01		1025.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.46983E-01		1050.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.45487E-01		1075.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.44073E-01		1100.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.42732E-01		1125.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.41462E-01		1150.00		0.00	10.0		Winter	0-360	10011001	
-1.30	0.043										

0.39109E-01	1200.00	0.00	10.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.38018E-01	1225.00	0.00	10.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.37107E-01	1250.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.36112E-01	1275.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.35163E-01	1300.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.34256E-01	1325.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.33388E-01	1350.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.32558E-01	1375.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.31763E-01	1400.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.31001E-01	1425.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.30271E-01	1450.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.29569E-01	1475.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.28895E-01	1500.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.28247E-01	1525.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.27625E-01	1550.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.27025E-01	1575.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.26448E-01	1600.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		

310.0	2.0											
0.25891E-01	1625.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.25355E-01	1650.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.24838E-01	1675.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.24338E-01	1700.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.23856E-01	1725.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.23390E-01	1750.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.22940E-01	1775.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.22504E-01	1800.00	0.00	5.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.22083E-01	1825.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.21675E-01	1850.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.21280E-01	1875.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.20897E-01	1900.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.20526E-01	1925.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.20166E-01	1950.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.19817E-01	1975.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.19478E-01	2000.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.19150E-01	2025.00	0.00	5.0	Winter	0-360	10011001						

1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.18831E-01		2050.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.18521E-01		2075.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.18219E-01		2100.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.17926E-01		2125.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.17641E-01		2150.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.17364E-01		2175.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.17095E-01		2200.00		0.00	20.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.16832E-01		2225.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.16577E-01		2250.00		0.00	15.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.16328E-01		2275.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.16085E-01		2300.00		0.00	15.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.15849E-01		2325.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.15619E-01		2350.00		0.00	25.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.15394E-01		2375.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.15175E-01		2400.00		0.00	0.0		Winter	0-360	10011001	
-1.30											

0.14753E-01	2450.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.14550E-01	2475.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.14351E-01	2500.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.14156E-01	2525.00	0.00	20.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.13967E-01	2550.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.13781E-01	2575.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.13600E-01	2600.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.13423E-01	2625.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.13250E-01	2650.00	0.00	10.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.13081E-01	2675.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.12915E-01	2700.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.12753E-01	2725.00	0.00	10.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.12595E-01	2750.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.12440E-01	2775.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.12288E-01	2800.00	0.00	10.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.12139E-01	2825.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		
310.0 2.0						
0.11994E-01	2850.00	0.00	20.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.	6.0 1.000 1.50	0.35	0.50	10.0		

310.0	2.0											
0.11851E-01	2875.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.11711E-01	2900.00	0.00	5.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.11575E-01	2925.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.11440E-01	2950.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.11309E-01	2975.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.11180E-01	3000.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.11054E-01	3025.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.10930E-01	3050.00	0.00	5.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.10809E-01	3075.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.10689E-01	3100.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.10572E-01	3125.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.10458E-01	3150.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.10345E-01	3175.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.10235E-01	3200.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.10126E-01	3225.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.10020E-01	3250.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.99153E-02	3275.00	0.00	30.0	Winter	0-360	10011001						

-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.98127E-02		3300.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.97118E-02		3325.00		0.00	15.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.96128E-02		3350.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.95154E-02		3375.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.94198E-02		3400.00		0.00	20.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.93258E-02		3425.00		0.00	25.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.92334E-02		3450.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.91426E-02		3475.00		0.00	15.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.90534E-02		3500.00		0.00	20.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.89656E-02		3525.00		0.00	25.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.88793E-02		3550.00		0.00	25.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.87944E-02		3575.00		0.00	15.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.87110E-02		3600.00		0.00	20.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.86288E-02		3625.00		0.00	30.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.85481E-02		3650.00		0.00	0.0		Winter	0-360	10011001	
-											

0.83904E-02	3700.00	0.00	20.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.83134E-02	3724.99	0.00	20.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.82376E-02	3750.00	0.00	15.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.81631E-02	3775.00	0.00	25.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.80897E-02	3800.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.80174E-02	3825.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.79463E-02	3849.99	0.00	15.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.78762E-02	3875.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.78072E-02	3900.00	0.00	15.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.77392E-02	3925.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.76722E-02	3950.00	0.00	10.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.76063E-02	3975.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.75413E-02	4000.00	0.00	10.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.74773E-02	4025.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.74142E-02	4050.00	0.00	30.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.73520E-02	4075.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	
310.0 2.0						
0.72908E-02	4100.00	0.00	25.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0	

310.0	2.0											
0.72304E-02	4125.00	0.00	5.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.71708E-02	4150.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.71121E-02	4175.00	0.00	5.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.70543E-02	4200.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.69972E-02	4225.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.69410E-02	4250.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.68855E-02	4275.00	0.00	5.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.68308E-02	4300.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.67768E-02	4325.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.67236E-02	4350.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.66711E-02	4375.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.66192E-02	4400.00	0.00	0.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.65681E-02	4425.00	0.00	5.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.65177E-02	4450.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.64679E-02	4475.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.64188E-02	4500.00	0.00	10.0	Winter	0-360	10011001						
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0	2.0											
0.63704E-02	4525.00	0.00	10.0	Winter	0-360	10011001						

1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.63225E-02		4550.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.62753E-02		4575.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.62287E-02		4600.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.61827E-02		4625.00		0.00	25.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.61372E-02		4650.00		0.00	20.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.60924E-02		4675.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.60481E-02		4700.00		0.00	15.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.60043E-02		4725.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.59611E-02		4750.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.59185E-02		4775.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.58764E-02		4800.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.58347E-02		4825.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.57936E-02		4850.00		0.00	5.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.57530E-02		4875.00		0.00	0.0		Winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
	0.57129E-02		4900.00		0.00	5.0		Winter	0-360	10011001	
-1.30											

0.56341E-02	4950.00	0.00	5.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50 10.0
310.0 2.0						
0.55954E-02	4975.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50 10.0
310.0 2.0						
0.55572E-02	5000.00	0.00	0.0	Winter	0-360	10011001
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50 10.0
310.0 2.0						



Technical Consultation, Data Analysis and
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**Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review**

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.

B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist

California Certified Hydrogeologist

Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt’s duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, *Oxygenates in Water: Critical Information and Research Needs*.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.

- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukunaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.



Technical Consultation, Data Analysis and
Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE

2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
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Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Principal Environmental Chemist

Chemical Fate and Transport & Air Dispersion Modeling

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H₂O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*. 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. *Journal of Real Estate Research*. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.**, Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermid and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste*. Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries*. Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution*, 123 (17), 319-327.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities*. Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004*. New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellev, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS-6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld**. (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States” Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International*

Conferences on Soils Sediment and Water. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The 23rd *Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants..* Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. \$100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 5-14-2021
Trial, October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty, Plaintiff vs. Consolidated Rail Corporation and National Railroad Passenger Corporation
d/b/a AMTRAK,
Case No.: No. 18-L-6845
Rosenfeld Deposition, 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe, Plaintiff vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA
Rail, Defendants
Case No.: No. 17-cv-8517
Rosenfeld Deposition, 5-25-2021

In the Superior Court of the State of Arizona In and For the Cuntly of Maricopa
Mary Tryon et al., Plaintiff vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case Number CV20127-094749
Rosenfeld Deposition: 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al *Plaintiffs*, vs. CNA Insurance Company et al.
Case Number 1:17-cv-000508
Rosenfeld Deposition: 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff*, vs. Marathon Petroleum, LP, *Defendant*.
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs*, vs. United States Metals Refining Company et. al. *Defendant*.
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs*, vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS “Conti Perdido”
Defendant.
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case No.: 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosiences, LLC, et al., Defendants
Cause No.: 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs*, vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action NO. 14-C-30000
Rosenfeld Deposition, June 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant*.
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs*, vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant*.
Civil Action Number 2:09-cv-232-WHA-TFM
Rosenfeld Deposition: July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*
Civil Action No. CV 2008-2076
Rosenfeld Deposition: September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.
Case Number 2:07CV1052
Rosenfeld Deposition: July 2009

EXHIBIT C



July 18, 2022

Ms. Victoria Yundt
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, California 94612

SUBJECT: Dinah's Sepulveda, Comments on the SCEA document

Dear Ms. Yundt,

Following are brief comments on potential issues in the SCEA document for the subject matter project, Dinah's Sepulveda. The Proposed Project would result in the demolition and removal of existing buildings, with the exception of historic structure (Dinah's Family Restaurant) and development of an 8 story MFR with very low income goals with ground floor restaurant. The noise and vibration analysis is summarized in Section 5.XIII of the SCEA and the backup noise calculations provided in Appendix G.

The noise analysis relies on short-term measurements at four locations; these data are not adequate to determine the existing CNEL or range of existing hourly values. The SCEA significance thresholds for noise are based on increases over the ambient. (Table XIII-4, and Appendix G).

The SCEA mentions the City of Los Angeles Municipal Code limits on amplified noise (page 5-146), but does not further contain any analysis of the potential impact of music from outdoor amplified sound systems. The SCEA does not appear to include the aggregate effect of sound systems complying with the Municipal Code into a composite noise analysis. Compliance with the municipal codes notwithstanding the noise from music and elevated human voice from active life celebrations are potentially significant and should be discussed in the SCEA.

The SCEA cites WHO guidance for interior noise: 45 dBA (events) and 30 dBA Leq, and the SCEA should show that noise from the outdoor event areas will be controlled to comport with these standards

Please feel free to contact me with any questions on this information.

Very truly yours,

WILSON IHRIG

Deborah A. Jue, INCE-USA
Principal

dinahs sepulveda_scea review_wilson ihrig_draft.docx



LOS ANGELES CITY PLANNING COMMISSION

200 North Spring Street, Room 272, Los Angeles, California, 90012-4801, (213) 978-1300
www.planning.lacity.org

LETTER OF DETERMINATION

MAILING DATE: DECEMBER 14, 2022

Case No. CPC-2021-4937-CU-DB-SPR-WDI-HCA

Council District: 11 – Park

CEQA: ENV-2021-4938-SCEA

Plan Area: Westchester – Playa del Rey

Project Site: 6501 – 6521 South Sepulveda Boulevard;
6502 – 6520 South Arizona Avenue

Applicant: FRH Realty, LLC
Representative: Jonathan Lonner, Burns & Bouchard, Inc.

At its meeting of **November 17, 2022**, the Los Angeles City Planning Commission took the actions below in conjunction with the approval of the following Project:

Demolition of an existing commercial shopping center, industrial building, and associated surface parking lots, the maintenance of an existing one-story commercial restaurant building, and the construction, use, and maintenance of a new eight-story mixed-use building with 362 residential units and approximately 3,700 square feet of new commercial space on the ground floor; 41 residential units will be reserved for Very Low Income households. The Project will provide 520 vehicle parking spaces.

1. **Found** pursuant to Public Resources Code (PRC), Section 21155.2, after consideration of the whole of the administrative record, including the SB 375 Sustainable Communities Environmental Assessment, No. ENV-2021-4938-SCEA ("SCEA"), and all comments received, after imposition of all mitigation measures there is no substantial evidence that the project will have a significant effect on the environment; **Found** that the City Council held a hearing on and adopted the SCEA on September 30, 2022 pursuant to PRC Section 21155.2(b)(6); **Found** the project is a "transit priority project" as defined by PRC Section 21155 and the project has incorporated all feasible mitigation measures, performance standards, or criteria set forth in prior EIR(s), including SCAG 2020-2045 RTP/SCS EIR Schedule No. 20199011061; **Found** all potentially significant effects required to be identified in the initial study have been identified and analyzed in the SCEA; **Found** with respect to each significant effect on the environment required to be identified in the initial study for the SCEA, changes or alterations have been required in or incorporated into the project that avoid or mitigate the significant effects to a level of insignificance or those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency; **Found** the SCEA reflects the independent judgment and analysis of the City; **Found** the mitigation measures have been made enforceable conditions on the project; and **Adopted** the SCEA and the Mitigation Monitoring and Reporting Program prepared for the SCEA;
2. **Approved**, pursuant to Section 12.24 U.26 of the Los Angeles Municipal Code (LAMC), a Conditional Use Permit to allow a 50 percent Density Bonus for a housing development project in which the density increase is greater than otherwise permitted by LAMC Section 12.22 A.25;

3. **Approved**, pursuant to LAMC Section 12.22 A.25, a Density Bonus Compliance Review to permit a housing development project consisting of 362 dwelling units, of which 41 will be set aside for Very Low Income households, and with the following Incentives:
 - a. An Off-Menu Incentive to allow a maximum Floor Area Ratio (FAR) of 3.85:1 in lieu of the otherwise permitted 1.5:1;
 - b. An Off-Menu Incentive to allow a 26 percent reduction in the required amount of open space; and
 - c. An Off-Menu Incentive to allow a zero-foot distance between main buildings in lieu of the otherwise required distance;
4. **Approved**, pursuant to LAMC Section 16.05, a Site Plan Review for a development project creating 50 or more residential dwelling units;
5. **Approved**, pursuant to LAMC Section 12.37 I, a Waiver of Dedications and Improvements to waive the otherwise required dedications and improvements along Sepulveda Boulevard;
6. **Adopted** the attached Modified Conditions of Approval; and
7. **Adopted** the attached Findings.

The vote proceeded as follows:

Moved: Campbell
 Second: Dake Wilson
 Ayes: Choe, Leung, Millman, Perlman
 Absent: Hornstock, López-Ledesma, Mack

Vote: 6 – 0


 Cecilia Lamas, Commission Executive Assistant
 Los Angeles City Planning Commission

Fiscal Impact Statement: There is no General Fund impact as administrative costs are recovered through fees.

Effective Date/Appeals: The decision of the Los Angeles City Planning Commission related to the Off-Menu Density Bonus Incentives are not appealable. All remaining actions are appealable to City Council within 15 days after the mailing date of this determination letter. Any appeal not filed within the 15-day period shall not be considered by the Council. All appeals shall be filed on forms provided at the Planning Department's Development Service Centers located at: 201 North Figueroa Street, Fourth Floor, Los Angeles; 6262 Van Nuys Boulevard, Suite 251, Van Nuys; or 1828 Sawtelle Boulevard, West Los Angeles.

FINAL APPEAL DATE: DECEMBER 29, 2022

Notice: An appeal of the CEQA clearance for the Project pursuant to Public Resources Code Section 21151(c) is only available if the Determination of the non-elected decision-making body (e.g., ZA, AA, APC, CPC) **is not further appealable** and the decision is final.

If you seek judicial review of any decision of the City pursuant to California Code of Civil Procedure Section 1094.5, the petition for writ of mandate pursuant to that section must be filed no later than the 90th day following the date on which the City's decision became final pursuant to California Code of Civil Procedure Section 1094.6. There may be other time limits which also affect your ability to seek judicial review.

Attachments: Modified Conditions of Approval, Findings, Interim Appeal Filing Procedure

c: Heather Bleemers, Senior City Planner
 More Song, City Planner

CONDITIONS OF APPROVAL

(As Modified by the City Planning Commission at its meeting on November 17, 2022)

Pursuant to Sections 12.24 U.26, 12.22 A.25, 16.05, and 12.37 of the LAMC, the following conditions are hereby imposed upon the use of the subject property:

Development Conditions

1. **Site Development.** Except as modified herein, the project shall be in substantial conformance with the architectural plans, landscape plan, renderings, and materials submitted by the applicant, stamped "Exhibit A", and attached to the subject case file.
2. **Residential Density.** The project shall be limited to a maximum density of 362 dwelling units, including affordable units.
3. **Affordable Units:** A minimum of 41 units, equal to a minimum of 17 percent of the base density, shall be reserved as Very Low Income units, as defined by the State Density Bonus Law per Government Code Section 65915(c)(2), to meet the requirements of the requests herein. In the event of deviations to the requests that change this number of restricted affordable units, the composition/typology of units, and/or vehicle parking numbers, such changes shall be consistent with LAMC Section 12.22 A.25.
4. **Housing Requirements.** Prior to issuance of a building permit, the owner shall execute a covenant to the satisfaction of LAHD to make 17 percent of the site's base density units, equal to 41 units, available to Very Low Income households, for sale or rental as determined to be affordable to such households by LAHD for a period of 55 years. In the event the applicant reduces the proposed density of the project, the number of required reserved on-site Restricted Units may be adjusted, consistent with LAMC Section 12.22 A.25, to the satisfaction of LAHD, and in consideration of the project's SB 8 Determination Letter, dated April 25, 2022. Enforcement of the terms of said covenant shall be the responsibility of LAHD. The applicant will present a copy of the recorded covenant to Los Angeles City Planning for inclusion in this file. The project shall comply with the Guidelines for the Affordable Housing Incentives Program adopted by the City Planning Commission and with any monitoring requirements established by LAHD.
5. **Incentives:**
 - a. Floor Area Ratio. The project is permitted a maximum FAR of 3.85:1.
 - b. Open Space. The project is permitted a 26 percent reduction in the required amount of open space.
 - c. Space Between Buildings. The project is permitted to provide zero-foot separation between buildings, in lieu of the otherwise required space pursuant to LAMC Section 12.21 C.2.
6. **Parking:**
 - a. Minimum residential automobile parking shall be provided consistent with the provisions of Section 65915 of the California Government Code and/or the LAMC.

- b. Minimum commercial automobile parking shall be provided consistent with the provisions of the LAMC.
- c. In the event that the composition of residential units and/or commercial uses (i.e. the number of bedrooms or square footage of certain commercial uses) changes, or the applicant selects a different Parking Option as provided by State Density Bonus law and the LAMC and no other Condition of Approval or incentive is affected, then no modification of this determination shall be necessary, and the number of parking spaces shall be re-calculated by the Department of Building and Safety based upon the ratios set forth by Section 65915 of the California Government Code and/or LAMC Section 12.22 A.25.
- d. Bicycle Parking. Residential bicycle parking shall be provided consistent with LAMC 12.21 A.16.
- e. Unbundling. Required parking may be sold or rented separately from the units, with the exception of all Restricted Affordable units which shall include any required parking in the base rent or sales price, as verified by LAHD.
- f. All vehicular parking shall provide electric vehicle charging spaces and electric vehicle charging stations in compliance with the regulations outlined in Sections 99.04.106 and 99.05.106 of Article 9, Chapter IX of the LAMC.
- g. All vehicle parking spaces in excess of the minimum amount required by the LAMC shall have electric vehicle chargers installed prior to the issuance of the certificate of occupancy.

Site Plan Review Conditions

7. Design:

- a. All building façades shall utilize a minimum of two different materials. Windows, doors, balcony railings, decorative features (such as light fixtures, planters, etc.), and perimeter walls (e.g. walls along a street that are not a part of the building) are excluded from meeting this requirement.
- b. Along the project's ground floor street frontage along Sepulveda Boulevard, there shall be no less than a total of 50 horizontal feet of doors, windows, and/or other transparent glazing, excluding the existing Dinah's restaurant building to remain. Along the project's ground floor façade facing Centinela Avenue, there shall be no less than a total of 100 horizontal feet of doors, windows, and/or other transparent glazing. To meet these requirements, glazing shall be a minimum of six feet in height. Vehicle gates and non-transparent doors shall not count towards meeting these requirements.
- c. Outdoor private patios serving individual residential units shall total a minimum of 350 feet in width along the project's ground floor street frontage facing Centinela Avenue.
- d. The project shall provide a central outdoor courtyard of at least 14,000 square feet on the fourth floor and a roof deck of at least 1,000 square feet, as depicted in the plans in Exhibit A.

- e. All mechanical equipment on the roof shall be screened from view by any abutting properties. The transformer, if located in the front yard, shall be screened with landscaping on all exposed sides (those not adjacent to a building wall).
- 8. **Circulation.** The applicant shall submit a parking and driveway plan to the Los Angeles Department of Transportation (LADOT) for approval. The project shall minimize the number of curb cuts on the subject property, to the satisfaction of LADOT.
- 9. **Parking.** With the exception of vehicle and pedestrian entrances and air grilles, any aboveground vehicle parking shall be completely enclosed along all sides of the building.
- 10. **Landscaping:**
 - a. All open areas not used for buildings, driveways, parking areas, or walkways shall be attractively landscaped and maintained in accordance with a landscape plan and an automatic irrigation plan, prepared by a licensed Landscape Architect and to the satisfaction of the Department of City Planning.
 - b. The project shall plant a minimum of 91 trees on-site and in the public right-of-way, as depicted on the plans in Exhibit A.
- 11. **Signage.** On-site signs shall comply with the Municipal Code. Signage rights are not part of this approval.
- 12. **Lighting.** Outdoor lighting shall be designed and installed with shielding, such that the light source does not illuminate adjacent residential properties or the public right-of-way, nor the above night skies.
- 13. **Trash.** Trash receptacles shall be stored within a fully enclosed portion of the building at all times. Trash/recycling containers shall be locked when not in use and shall not be placed in or block access to required parking.
- 14. **Solar Energy Infrastructure.** The Project shall comply with the Los Angeles Municipal Green Building Code, Section 99.05.211, to the satisfaction of the Department of Building and Safety.
- 15. **Maintenance.** The subject property, including any trash storage areas, associated parking facilities, sidewalks, driveways, yard areas, parkways, and exterior walls along the property lines, shall be maintained in an attractive condition and shall be kept free of trash and debris.
- 16. **Sustainability.** The project shall be developed to LEED Silver or equivalent rating.

Waiver of Dedications and Improvements Conditions

- 17. **Dedications and Improvements.** No dedications and associated widening improvements shall be required for the western side of Sepulveda Boulevard along the project's street frontage. The project shall implement all other required dedications and improvements to the satisfaction of the Bureau of Engineering.

Administrative Conditions

18. **Approvals, Verification and Submittals.** Copies of any approvals, guarantees or verification of consultations, reviews or approval, plans, etc, as may be required by the subject conditions, shall be provided to the Department of City Planning for placement in the subject file.
19. **Building Plans.** A copy of the first page of this grant and all Conditions and/or any subsequent appeal of this grant and its resultant Conditions and/or letters of clarification shall be printed on the building plans submitted to the Development Services Center and the Department of Building and Safety for purposes of having a building permit issued.
20. **Notations on Plans.** Plans submitted to the Department of Building and Safety for the purpose of processing a building permit application shall include all of the Conditions of Approval herein attached as a cover sheet and shall include any modifications or notations required herein.
21. **Final Plans.** Prior to the issuance of any building permits for the project by the Department of Building and Safety, the applicant shall submit all final construction plans that are awaiting issuance of a building permit by the Department of Building and Safety for final review and approval by the Department of City Planning. All plans that are awaiting issuance of a building permit by the Department of Building and Safety shall be stamped by Department of city Planning staff "Final Plans". A copy of the Final Plans, supplied by the applicant, shall be retained in the subject case file.
22. **Code Compliance.** All area, height and use regulations of the zone classification of the subject property shall be complied with, except wherein these conditions explicitly allow otherwise.
23. **Covenant.** Prior to the issuance of any permits relative to this matter, an agreement concerning all the information contained in these conditions shall be recorded in the County Recorder's Office. The agreement shall run with the land and shall be binding on any subsequent property owners, heirs or assign. The agreement must be submitted to the Department of City Planning for approval before being recorded. After recordation, a copy bearing the Recorder's number and date shall be provided to the Department of City Planning for attachment to the file.
24. **Corrective Conditions.** The authorized use shall be conducted at all times with due regard for the character of the surrounding district, and the right is reserved to the City Planning Commission, or the Director pursuant to Section 12.27.1 of the Municipal Code, to impose additional corrective conditions, if, in the Commission's or Director's opinion, such conditions are proven necessary for the protection of persons in the neighborhood or occupants of adjacent property.
25. **Definition.** Any agencies, public officials or legislation referenced in these conditions shall mean those agencies, public offices, legislation or their successors, designees or amendment to any legislation.
26. **Enforcement.** Compliance with these conditions and the intent of these conditions shall be to the satisfaction of the Department of City Planning and any designated agency, or the agency's successor and in accordance with any stated laws or regulations, or any amendments thereto.

27. **Expedited Processing Section.** Prior to the clearance of any conditions, the applicant shall show proof that all fees have been paid to the Department of City Planning, Expedited Processing Section.

28. **Indemnification and Reimbursement of Litigation Costs**

Applicant shall do all of the following:

- a. Defend, indemnify and hold harmless the City from any and all actions against the City relating to or arising out of, in whole or in part, the City's processing and approval of this entitlement, including but not limited to, an action to attack, challenge, set aside, void, or otherwise modify or annul the approval of the entitlement, the environmental review of the entitlement, or the approval of subsequent permit decisions, or to claim personal property damage, including from inverse condemnation or any other constitutional claim.
- b. Reimburse the City for any and all costs incurred in defense of an action related to or arising out of, in whole or in part, the City's processing and approval of the entitlement, including but not limited to payment of all court costs and attorney's fees, costs of any judgments or awards against the City (including an award of attorney's fees), damages, and/or settlement costs.
- c. Submit an initial deposit for the City's litigation costs to the City within 10 days' notice of the City tendering defense to the Applicant and requesting a deposit. The initial deposit shall be in an amount set by the City Attorney's Office, in its sole discretion, based on the nature and scope of action, but in no event shall the initial deposit be less than \$50,000. The City's failure to notice or collect the deposit does not relieve the Applicant from responsibility to reimburse the City pursuant to the requirement in paragraph (ii).
- d. Submit supplemental deposits upon notice by the City. Supplemental deposits may be required in an increased amount from the initial deposit if found necessary by the City to protect the City's interests. The City's failure to notice or collect the deposit does not relieve the Applicant from responsibility to reimburse the City pursuant to the requirement in paragraph (ii).
- e. If the City determines it necessary to protect the City's interest, execute an indemnity and reimbursement agreement with the City under terms consistent with the requirements of this condition.

The City shall notify the applicant within a reasonable period of time of its receipt of any action and the City shall cooperate in the defense. If the City fails to notify the applicant of any claim, action, or proceeding in a reasonable time, or if the City fails to reasonably cooperate in the defense, the applicant shall not thereafter be responsible to defend, indemnify or hold harmless the City.

The City shall have the sole right to choose its counsel, including the City Attorney's office or outside counsel. At its sole discretion, the City may participate at its own expense in the defense of any action, but such participation shall not relieve the applicant of any obligation imposed by this condition. In the event the Applicant fails to comply with this condition, in whole or in part, the City may withdraw its defense of the action, void its approval of the entitlement, or take any other action. The City retains the right to make all decisions with respect to its representations in any legal proceeding, including its inherent right to abandon or settle litigation.

For purposes of this condition, the following definitions apply:

“City” shall be defined to include the City, its agents, officers, boards, commissions, committees, employees, and volunteers.

“Action” shall be defined to include suits, proceedings (including those held under alternative dispute resolution procedures), claims, or lawsuits. Actions include actions, as defined herein, alleging failure to comply with any federal, state or local law.

Nothing in the definitions included in this paragraph are intended to limit the rights of the City or the obligations of the Applicant otherwise created by this condition.

FINDINGS

Conditional Use Findings

- 1. That the project will enhance the built environment in the surrounding neighborhood or will perform a function or provide a service that is essential or beneficial to the community, city or region.**

The proposed project consists of the construction of a new eight-story mixed-use building with 362 residential units above approximately 3,700 square feet of commercial space on the ground floor. The project site is currently developed with an existing restaurant building which will be maintained and a commercial mini-mall and industrial building which will be demolished for the development of the proposed project. The project site is located along Sepulveda Boulevard just south of the intersection with Centinela Avenue. With small-scale commercial uses and surface parking areas, the project site is a prime location for new housing units and community-oriented commercial services, given its location along a major arterial corridor in a heavily urbanized area of the City close to jobs, services, and transit. The project will improve the existing aging site by removing billboards and old unattractive buildings, replacing them with a modern mixed-use building with extensive glazing and varied architectural materials. In particular, the proposed project will feature a ground floor façade with transparent and activated neighborhood-serving and pedestrian-oriented commercial services, as well as a prominent residential lobby, located along the main street frontage. The project will also incorporate new, varied, and attractive building materials along the facades and plant new trees and planters along the street frontages, which will significantly enhance the street frontages and enhance the pedestrian experience. Therefore, the project will both help alleviate the city's housing shortage while including desirable community-serving uses and enhance the physical environment.

In addition, as a Density Bonus development, the project will both provide much needed housing in general to the area, as well as restricted affordable housing units which will serve the most needy segments of the population from across the region. The requested increase in residential density directly enables and supports the provision of additional restricted affordable housing units. Therefore, the project will provide an essential and beneficial service to the community, City, and entire region.

- 2. That the project's location, size, height, operations and other significant features will be compatible with and will not adversely affect or further degrade adjacent properties, the surrounding neighborhood or the public health, welfare, and safety.**

The proposed project consists of the construction of a new eight-story mixed-use building with 362 residential units above approximately 3,700 square feet of commercial space on the ground floor. The project site is currently developed with an existing restaurant building which will be maintained and a commercial mini-mall and industrial building which will be demolished for the development of the proposed project. The project site is located along Sepulveda Boulevard just south of the intersection with Centinela Avenue; both thoroughfares are developed with a variety of mid- and high-rise office, hotel, and residential uses in this area. The intersection of Sepulveda Boulevard and Centinela Avenue in particular includes an eight-story office tower and five-story medical office building across the street from the project site, and two high-rise hotel towers and new multi-story residential complexes nearby. As such, the proposed project is a desirable use and development in this location, as it will be comparable in size and nature to other developments along the major roadways. The project will replace an aging, underutilized, and automobile-oriented development with a new urban

infill mixed-use residential and commercial service development and will complement other development in the area with another multi-story transit-oriented development.

With the exception of the requests herein, the proposed project is otherwise entirely consistent with the requirements of the underlying zone. The subject property is designated for General Commercial land uses corresponding to the C1.5, C2, C4, CR, RAS3, and RAS4 Zones. The subject property is zoned C4-1 and is thus consistent with the existing land use designation. As a new mixed-use residential and commercial building, the project will continue to provide neighborhood-serving commercial services, but within a modern and more attractive site which also provides much needed housing for the area. With a relatively small amount of commercial space designed for small-scale commercial services and residential units, the project's proposed uses are appropriate and desirable for its location in a heavily urbanized and centrally located area developed with a variety of other residential and commercial uses.

The project is a desirable use in a location designated for such developments and will be compatible with surrounding properties and the surrounding area. The proposed density, height, and FAR, are permissible by the underlying zone and the provisions of Density Bonus law. The proposed building will be similar in scale to existing developments in the area and represents an appropriate and desirable transition between the taller existing buildings along Sepulveda Boulevard and Centinela Avenue and lower-density single-family residential neighborhoods away from the arterial roadways. The proposed building's active and transparent façade along Sepulveda Boulevard will complement the commercial uses and arterial corridor, while landscaped buffer areas provide additional setbacks and minimize potential impacts on adjacent properties. Therefore, the project's location, size, height, operations, and other significant features will be compatible with and will not adversely affect adjacent properties, the surrounding neighborhood, or the public health, welfare, and safety.

3. That the project substantially conforms with the purpose, intent and provisions of the General Plan, the applicable community plan, and any applicable specific plan.

The project site is located within the Westchester – Playa del Rey Community Plan, which is one of 35 Community Plans which together form the land use element of the General Plan. The Community Plan designates the site for General Commercial land uses corresponding to the C1.5, C2, C4, CR, RAS3, and RAS4 Zones. The subject property is currently zoned C4-1 and is thus consistent with the existing land use designation. The project is also located within the Los Angeles Coastal Transportation Corridor Specific Plan, which prescribes transportation improvements and related fees and is thus subject to any such additional requirements. The project site is also a designated Transit Priority Area within the City of Los Angeles. The subject property is not located within the boundaries of and is not subject to any other specific plan or community design overlay.

With the exception of the requests herein, which enable the provision of affordable housing units, the proposed project is otherwise consistent with the requirements of the underlying zone. The project proposes a mixed-use residential and commercial development on a site designated for such uses. The requested Incentives are permissible by the provisions of Density Bonus law, and the project will comply with all other applicable provisions of the zoning code.

The project is also consistent with the following goal and objectives of the Community Plan:

GOAL 1: "PROVIDE A SAFE, SECURE, AND HIGH QUALITY RESIDENTIAL ENVIRONMENT FOR ALL ECONOMIC, AGE, AND ETHNIC SEGMENTS OF THE WESTCHESTER-PLAYA DEL REY COMMUNITY.."

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 Westchester-Playa del Rey Community Plan Area to the year 2025”

Objective 1-2: “Locate housing near commercial centers, public facilities, and bus routes and other transit services, to reduce vehicular trips and congestion and increase access to services and facilities.”

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

GOAL 2: “ENCOURAGE A STRONG AND COMPETITIVE COMMERCIAL SECTOR THAT PROMOTESECONOMIC VITALITY AND SERVES THE NEEDS OF THE WESTCHESTER-PLAYA DEL REY COMMUNITY THROUGH SAFE, ACCESSIBLE, AND WELL-DESIGNED COMMERCIAL DISTRICTS, WHILE PRESERVING THE HISTORIC AND CULTURAL CHARACTER OF THE COMMUNITY.”

Objective 2-1: “Preserve and strengthen viable commercial development in the community, and provide additional opportunities for new commercial development and services within existing commercial areas.”

Objective 2-3: “Enhance the land use compatibility, visual appearance, design and appeal of commercial development.”

The project is further consistent with other elements of the General Plan, including the Framework Element, the Housing Element, and the Mobility Element. The Framework Element was adopted by the City of Los Angeles in December 1996 and re-adopted in August 2001. The Framework Element provides guidance regarding policy issues for the entire City of Los Angeles, including the project site. The Framework Element also sets forth a Citywide comprehensive long-range growth strategy and defines Citywide policies regarding such issues as land use, housing, urban form, neighborhood design, open space, economic development, transportation, infrastructure, and public services. The project supports the following goal and objective of the Framework Element:

GOAL 4A: “AN EQUITABLE DISTRIBUTION OF HOUSING OPPORTUNITIES BY TYPE AND COST ACCESSIBLE TO ALL RESIDENTS OF THE CITY.”

Objective 4.1: “Plan the capacity for and develop incentives to encourage production of an adequate supply of housing units of various types within each City sub-region to meet the projected housing needs by income level of the future population...”

The Housing Element of the General Plan provides land use policies and programs that encourage development of affordable housing across the City. The project also supports the following goals and objectives of the Housing Element:

GOAL 1: “HOUSING PRODUCTION AND PRESERVATION.”

Objective 1.1: “Produce an adequate supply of rental and ownership housing in order to meet current and projected needs.”

GOAL 2: “SAFE, LIVEABLE, AND SUSTAINABLE NEIGHBORHOODS.”

Objective 2.2: “Promote sustainable neighborhoods that have mixed-income housing, jobs, amenities, services and transit.”

Objective 2.5: “Promote a more equitable distribution of affordable housing opportunities throughout the City.”

The Mobility Element of the General Plan, also known as Mobility Plan 2035, provides policies with the ultimate goal of developing a balanced transportation network for all users. The project supports the following policies of the Mobility Element:

Policy 3.3: “Promote equitable land use decisions that result in fewer vehicle trips by providing greater proximity and access to jobs, destinations, and other neighborhood services.”

Policy 5.2: “Support ways to reduce vehicle miles traveled (VMT) per capita.”

Policy 5.4: “Continue to encourage the adoption of low and zero emission fuel sources, new mobility technologies, and supporting infrastructure.”

The project proposes a new mixed-use multi-family and commercial development that will provide much-needed housing, including affordable housing, and neighborhood-serving commercial uses. Accordingly, the project fulfills the Community Plan, Framework Element, and Housing Element goals and objectives of providing quality housing for all persons in the community, including those at all income levels. The project utilizes development incentives to provide a higher number of residential units than would otherwise be permitted, thereby facilitating the creation of a higher number of affordable units and addressing the need for affordable housing in the City. Additionally, the project is a Density Bonus development located along Sepulveda Boulevard, a major arterial roadway in the region that is well-served by public transportation. Thus, by locating higher-density development along major transit corridors and by providing commercial services and jobs in proximity to residences, the project will contribute towards the creation of sustainable neighborhoods and a reduction in vehicle trips and VMT. The project will further promote mobility and sustainable environments by providing active and transparent building facades, public amenities such as a ground floor plaza, and incorporating landscaping, all of which will significantly improve pedestrian movement and the quality of the streetscape in the area. The proposed improvements represent a significant improvement over the existing site conditions and help realize the City’s goals, including the creation of attractive streetscapes and mixed-use boulevards (as detailed in the Westchester – Playa Del Rey Community Plan).

In addition, the project has been conditioned to include automobile parking spaces both ready for immediate use by electric vehicles (e.g. with electric vehicle chargers installed) and capable of supporting electric vehicles in the future. The project has also been conditioned to provide solar infrastructure. Together, these conditions further support applicable policies in the Health and Wellness Element, Air Quality Element, and Mobility Element of the General Plan by reducing the level of pollution/greenhouse gas emissions, ensuring new development is compatible with alternative fuel vehicles, and encouraging the adoption of low emission fuel sources and supporting infrastructure. These conditions also support good planning practice by promoting overall sustainability and providing additional benefits and conveniences for residents, workers, and visitors.

The project contributes to and furthers the relevant goals, objectives, and policies of the plans that govern land use and development in the City. In addition, the project does not substantially conflict with any applicable plan or other regulation. Therefore, the project

substantially conforms with the purpose, intent, and provisions of the General Plan, the applicable Community Plan, and the applicable specific plan.

In addition to the above findings set forth in Section 12.24 E of the LAMC, the City Planning Commission shall find that:

4. The project is consistent with and implements the affordable housing provisions of the Housing Element of the General Plan.

The City's Housing Element for 2013-2021 was adopted by the City Council on December 3, 2013 and is the City's blueprint for meeting housing and growth challenges. The Housing Element identifies the City's housing conditions and needs, reiterates goals, objectives, and policies that are the foundation of the City's housing and growth strategy, and provides the array of City programs to create sustainable, mixed- income neighborhoods across the City. The project supports the following goals and objectives of the Housing Element:

GOAL 1: "HOUSING PRODUCTION AND PRESERVATION."

Objective 1.1: "Produce an adequate supply of rental and ownership housing in order to meet current and projected needs."

GOAL 2: "SAFE, LIVEABLE, AND SUSTAINABLE NEIGHBORHOODS."

Objective 2.2: "Promote sustainable neighborhoods that have mixed-income housing, jobs, amenities, services and transit."

Objective 2.5: "Promote a more equitable distribution of affordable housing opportunities throughout the City."

The project proposes a new mixed-use residential and commercial development with 362 housing units, with 41 units set aside for Very Low Income households. Accordingly, the project fulfills the Housing Element goal of providing quality housing for all persons in the community. The project utilizes development incentives to provide a higher number of residential units than would otherwise be permitted, thereby facilitating the creation of a higher number of affordable units and addressing the need for affordable housing in the City. By providing housing in general and also affordable housing for Very Low Income households, the project directly supports the goals, objectives, and policies of the Housing Element that relate to the provision of affordable housing. Therefore, the project is consistent with and implements the affordable housing provisions of the Housing Element of the General Plan.

5. The project contains the requisite number of Restricted Affordable Units, based on the number of units permitted by the maximum allowable density on the date of application.

The subject property is zoned C4-1, which permits residential density at a ratio of one unit per 400 square feet of lot area. The subject property has a total lot area of approximately 96,030 square feet and as such, the permitted base density on the subject property is 241 units.

Pursuant to the LAMC and California Government Code Section 65915, a Housing Development Project that sets aside a certain percentage of units as affordable, either in rental or for-sale units, shall be granted a corresponding density bonus, up to a maximum of 35 percent. While these provisions are limited to 35 percent, Government Code Section 65915(f) states that "the amount of density bonus to which an applicant is entitled shall vary according to the amount by which the percentage of affordable housing units exceeds percentage established." As such, in instances where a project is seeking a density bonus increase that

is more than 35 percent, the amount of required units that are set aside as affordable shall vary depending on the requested amount of density bonus. Therefore, it is appropriate that any project that requests a density bonus increase beyond 35 percent would extend the existing set-aside charts located in Section 12.22 A.25 of the LAMC. LAMC Section 12.24 U.26, which implements this provision of the State law, states that based on the base density, as a Conditional Use a project may be granted additional density increases beyond the 35 percent maximum by providing additional affordable housing units. Per this code section, Table 1 below illustrates how the maximum allowable Density Bonus increases by 2.5 percent for every additional one percent of Very Low Income units provided, based on the base density and the chart prescribed in Section 12.22 A.25 of the LAMC.

Table 1: Density Bonus Percentages

Very Low Income Units (Percentage of Base Density)	Maximum Density Bonus Permitted (Based on Base Density)
5 %*	20 %*
6 %*	22.5 %*
7 %*	25 %*
8 %*	27.5 %*
9 %*	30 %*
10 %*	32.5 %*
11 %*	35 %*
12 %	37.5 %
13 %	40 %
14 %	42.5 %
15 %	45 %
16 %	47.5 %
17 %	50 %

**Existing set-aside chart as listed in Section 12.22 A.25 of the LAMC*

The project proposes to develop 362 units, equal to an increase of 121 units and a density bonus of 50 percent based on the base density on 241 units. Therefore, in order to obtain a 50 percent density bonus, the proposed project must set aside at least 17 percent of the base density, equal to 41 units, for Very Low Income Households. Accordingly, the project proposes to set aside 41 units for Very Low Income Households in exchange for the requested Density Bonus.

6. The project meets any applicable dwelling unit replacement requirements of the California Government Code Section 65915(c)(3).

The project proposes the demolition of an existing commercial mini-mall and industrial building. As the project site was previously entirely developed only with non-residential uses, there are no applicable replacement dwelling unit requirements. Nonetheless, the project will meet any applicable dwelling unit replacement requirements of the California Government Code Section 65915(c)(3).

7. The project's Restricted Affordable Units are subject to a recorded affordability restriction of 55 years from the issuance of the Certificate of Occupancy, recorded in a covenant acceptable to the Housing and Community Investment Department, and subject to fees as set forth in Section 19.14 of the LAMC.

The proposed project has been conditioned to record a covenant for affordability restriction of a period of 55 years from the issuance of the Certificate of Occupancy, to the satisfaction of

the Housing and Community Investment Department, and subject to fees as set forth in Section 19.14 of the LAMC.

8. The project addresses the policies and standards contained in the City Planning Commission's Affordable Housing Incentives Guidelines.

The City Planning Commission approved the Affordable Housing Incentives Guidelines (under Case No. CPC-2005-1101-CA) on June 9, 2005. The Guidelines were subsequently approved by the City Council on February 20, 2008, as a component of the City of Los Angeles Density Bonus Ordinance. The Guidelines describe the density bonus provisions and qualifying criteria, incentives available, design standards, and the procedures through which projects may apply for a density bonus and incentives. LAHD utilizes these Guidelines in the preparation of Housing Covenants for Affordable Housing Projects. The Guidelines prescribe that the design and location of affordable units be comparable to the market rate units, the equal distribution of amenities, LAHD monitoring requirements, affordability levels, and procedures for obtaining LAHD sign-offs for building permits.

The project will result in 362 new dwelling units, with 41 units set aside as affordable units for Very Low Income households. All residents of the proposed project will have access to all common and open space amenities within the building. The restricted units will comply with affordability requirements in the Guidelines set for the by LAHD in conformance with US Department of Housing and Urban Development (HUD). Additionally, as part of the building permit process, the applicant will execute a covenant to the satisfaction of LAHD who will ensure compliance with the Guidelines. Therefore, the project will address the policies and standards contained in the Guidelines.

Density Bonus / Affordable Housing Incentives Findings

9. Pursuant to Section 12.22 A.25(g)(2)(i)(c) of the LAMC and Section 65915(e) of the California Government Code, the Director shall approve a density bonus and requested incentive(s) unless the Director of Planning finds that¹:

a. *The Incentive does not result in identifiable and actual cost reductions to provide for affordable housing costs as defined in California Health and Safety Code Section 50052.5 or Section 50053 for rents for the affordable units.*

The record does not contain substantial evidence that would allow the Director to make a finding that the requested incentives do not result in identifiable and actual cost reductions to provide for affordable housing costs per State Law. The California Health & Safety Code Sections 50052.5 and 50053 define formulas for calculating affordable housing costs for very low, low, and moderate income households. Section 50052.5 addresses owner-occupied housing and Section 50053 addresses rental households. Affordable housing costs are a calculation of residential rent or ownership pricing not to exceed 25 percent gross income based on area median income thresholds dependent on affordability levels.

In exchange for reserving at least 15 percent of the base density for Very Low Income households, the applicant is entitled to three Incentives under both Government Code Section 65915 and the LAMC. The project proposes to reserve at least 15 percent of the base density of 241 units for Very Low Income households; accordingly, the project is entitled to the three requested Off-menu Incentives. These requested Incentives provide

¹ Pursuant to LAMC Section 12.22 A.25(g)(3), the City Planning Commission is considered the decision-maker for Off-menu density bonus requests. The findings referenced in LAMC Section 12.22 A.25(g)(2)(i)(c) apply to Off-menu requests.

cost reductions that provide for affordable housing costs because the incentives by their nature increase the scale of the project, which facilitates the creation of more affordable housing units.

Floor Area Ratio

The subject property is zoned C4-1; developments in this zone are limited to a maximum FAR of 1.5:1. The project is seeking an increase in FAR to 3.85:1 as an Off-menu Incentive. The project proposes a total of approximately 366,000 square feet of building area, equal to a FAR of 3.85:1. This increase permits the project to expand the building envelope and provide additional building floor area, which enables the provision of additional living space and residential units. The provision of leasable commercial space supports the construction of affordable residential units, while the increase in overall space that is dedicated to residential uses facilitates the creation of more residential units and enables the applicant to reserve more residential units for lower income levels. Therefore, the incentive supports the applicant's decision to set aside 41 dwelling units for Very Low Income households. The requested Incentive provides actual and identifiable cost reductions that provide for affordable housing costs because the incentive by nature increases the building envelope of the project so that additional residential units can be provided.

Open Space

Based on the number and typology of residential units proposed, the project would be required to provide 39,350 square feet of open space. The project proposes to provide approximately 29,140 square feet of open space, and accordingly is requesting an Off-menu Incentive for a 26 percent decrease in the required amount of open space. This reduction enables the project to expand the building envelope by utilizing more space for building floor area and provide additional floor space and residential units, thus enabling the provision of more dwelling units. The larger building footprint facilitates the creation of more residential units of all types, including market-rate units which enable the applicant to subsidize and reserve more residential units for lower income levels. Therefore, the incentive supports the applicant's decision to set aside 41 dwelling units for Very Low Income households as proposed. The requested Incentive provides actual and identifiable cost reductions that provide for affordable housing costs because the incentive by nature increases the building envelope of the project so that additional residential units can be provided, resulting in additional affordable housing units.

Reduction in Space Between Buildings

As the project involves the maintenance of the existing Dinah's restaurant building and the development of a new mixed-use building on the site, the project would be required to provide a space between the separate buildings pursuant to LAMC Section 12.21 C.2. The project proposes to develop the new mixed-use building directly abutting and on top of a portion of the existing restaurant building, and accordingly is requesting an Off-menu Incentive to permit zero-foot passageways between buildings on the site. This reduction enables the project to expand the building envelope by utilizing more space for building floor area and provide additional floor space and residential units, thus enabling the provision of more dwelling units. The larger building footprint facilitates the creation of more residential units of all types, including market-rate units which enable the applicant to subsidize and reserve more residential units for lower income levels. Therefore, the incentive supports the applicant's decision to set aside 41 dwelling units for Very Low Income households as proposed. The requested Incentive provides actual and identifiable cost reductions that provide for affordable housing costs because the incentive by nature

increases the building envelope of the project so that additional residential units can be provided, resulting in additional affordable housing units.

- b. *The Incentive(s) will have a Specific Adverse Impact upon public health and safety or the physical environment or any real property that is listed in the California Register of Historical Resources and for which there is no feasible method to satisfactorily mitigate or avoid the Specific Adverse Impact without rendering the development unaffordable to Very Low, Low and Moderate Income households. Inconsistency with the zoning ordinance or general plan land use designation shall not constitute a specific adverse impact upon the public health or safety (Government Code Section 65915(d)(1)(B) and 65589.5(d)).***

There is no substantial evidence in the record that the proposed Incentives will have a specific adverse impact upon public health and safety or the physical environment, or any real property that is listed in the California Register of Historical Resources. A "specific adverse impact" is defined as "a significant, quantifiable, direct and unavoidable impact, based on objective, identified written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete" (LAMC Section 12.22 A.25(b)). Although the existing Dinah's restaurant building is not listed as a City of Los Angeles Historical-Cultural Monument, it is a recognized historic resource that is potentially eligible for listing. In addition, the adjacent industrial neighborhood to the west is a recognized potential historic district, although it is not a designated Historic Preservation Overlay Zone. Potential environmental impacts, including impacts to historic resources, have been fully analyzed in the SCEA prepared for the project; the SCEA, which is fully adopted and final, concluded that the project would not have any significant impacts on historic resources as it will maintain the existing Dinah's restaurant and associated signs and will not impact the industrial neighborhood to the west. The property is not located on a substandard street in a Hillside area and is not located in a Liquefaction Zone, a Special Grading Area, a Very High Fire Hazard Severity Zone, a Methane Zone, or any other special hazard area. Therefore, there is no substantial evidence that the proposed project, and thus the requested Incentives, will have a specific adverse impact on the physical environment, on public health and safety or the physical environment, or on any Historical Resource. Based on the above, there is no basis to deny the requested Incentives.

- c. *The Incentives are contrary to State/federal law.***

There is no substantial evidence in the record indicating that the requested Incentives are contrary to any State or federal laws.

Site Plan Review Findings

- 10. The project is in substantial conformance with the purposes, intent and provisions of the General Plan, applicable community plan, and does not conflict with any applicable regulations, standards, and any applicable specific plan.**

The project site is located within the Westchester – Playa del Rey Community Plan, which is one of 35 Community Plans which together form the land use element of the General Plan. The Community Plan designates the site for General Commercial land uses corresponding to the C1.5, C2, C4, CR, RAS3, and RAS4 Zones. The subject property is currently zoned C4-1 and is thus consistent with the existing land use designation. The project is also located within the Los Angeles Coastal Transportation Corridor Specific Plan, which prescribes transportation improvements and related fees and is thus subject to any such additional requirements. The project site is also a designated Transit Priority Area within the City of Los

Angeles. The subject property is not located within the boundaries of and is not subject to any other specific plan or community design overlay.

With the exception of the requests herein, which enable the provision of affordable housing units, the proposed project is otherwise consistent with the requirements of the underlying zone. The project proposes a mixed-use residential and commercial development on a site designated for such uses. The requested Incentives are permissible by the provisions of Density Bonus law, and the project will comply with all other applicable provisions of the zoning code.

The project is also consistent with the following goal and objectives of the Community Plan:

GOAL 1: "PROVIDE A SAFE, SECURE, AND HIGH QUALITY RESIDENTIAL ENVIRONMENT FOR ALL ECONOMIC, AGE, AND ETHNIC SEGMENTS OF THE WESTCHESTER-PLAYA DEL REY COMMUNITY.."

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 Westchester-Playa del Rey Community Plan Area to the year 2025"

Objective 1-2: "Locate housing near commercial centers, public facilities, and bus routes and other transit services, to reduce vehicular trips and congestion and increase access to services and facilities."

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

GOAL 2: "ENCOURAGE A STRONG AND COMPETITIVE COMMERCIAL SECTOR THAT PROMOTES ECONOMIC VITALITY AND SERVES THE NEEDS OF THE WESTCHESTER-PLAYA DEL REY COMMUNITY THROUGH SAFE, ACCESSIBLE, AND WELL-DESIGNED COMMERCIAL DISTRICTS, WHILE PRESERVING THE HISTORIC AND CULTURAL CHARACTER OF THE COMMUNITY."

Objective 2-1: "Preserve and strengthen viable commercial development in the community, and provide additional opportunities for new commercial development and services within existing commercial areas."

Objective 2-3: "Enhance the land use compatibility, visual appearance, design and appeal of commercial development."

The project is further consistent with other elements of the General Plan, including the Framework Element, the Housing Element, and the Mobility Element. The Framework Element was adopted by the City of Los Angeles in December 1996 and re-adopted in August 2001. The Framework Element provides guidance regarding policy issues for the entire City of Los Angeles, including the project site. The Framework Element also sets forth a Citywide comprehensive long-range growth strategy and defines Citywide policies regarding such issues as land use, housing, urban form, neighborhood design, open space, economic development, transportation, infrastructure, and public services. The project supports the following goal and objective of the Framework Element:

GOAL 4A: "AN EQUITABLE DISTRIBUTION OF HOUSING OPPORTUNITIES BY TYPE AND COST ACCESSIBLE TO ALL RESIDENTS OF THE CITY."

Objective 4.1: “Plan the capacity for and develop incentives to encourage production of an adequate supply of housing units of various types within each City sub-region to meet the projected housing needs by income level of the future population...”

The Housing Element of the General Plan provides land use policies and programs that encourage development of affordable housing across the City. The project also supports the following goals and objectives of the Housing Element:

GOAL 1: “HOUSING PRODUCTION AND PRESERVATION.”

Objective 1.1: “Produce an adequate supply of rental and ownership housing in order to meet current and projected needs.”

GOAL 2: “SAFE, LIVEABLE, AND SUSTAINABLE NEIGHBORHOODS.”

Objective 2.2: “Promote sustainable neighborhoods that have mixed-income housing, jobs, amenities, services and transit.”

Objective 2.5: “Promote a more equitable distribution of affordable housing opportunities throughout the City.”

The Mobility Element of the General Plan, also known as Mobility Plan 2035, provides policies with the ultimate goal of developing a balanced transportation network for all users. The project supports the following policies of the Mobility Element:

Policy 3.3: “Promote equitable land use decisions that result in fewer vehicle trips by providing greater proximity and access to jobs, destinations, and other neighborhood services.”

Policy 5.2: “Support ways to reduce vehicle miles traveled (VMT) per capita.”

Policy 5.4: “Continue to encourage the adoption of low and zero emission fuel sources, new mobility technologies, and supporting infrastructure.”

The project proposes a new mixed-use multi-family and commercial development that will provide much-needed housing, including affordable housing, and neighborhood-serving commercial uses. Accordingly, the project fulfills the Community Plan, Framework Element, and Housing Element goals and objectives of providing quality housing for all persons in the community, including those at all income levels. The project utilizes development incentives to provide a higher number of residential units than would otherwise be permitted, thereby facilitating the creation of a higher number of affordable units and addressing the need for affordable housing in the City. Additionally, the project is a Density Bonus development located along Sepulveda Boulevard, a major arterial roadway in the region that is well-served by public transportation. Thus, by locating higher-density development along major transit corridors and by providing commercial services and jobs in proximity to residences, the project will contribute towards the creation of sustainable neighborhoods and a reduction in vehicle trips and VMT. The project will further promote mobility and sustainable environments by providing active and transparent building facades, public amenities such as a ground floor plaza, and incorporating landscaping, all of which will significantly improve pedestrian movement and the quality of the streetscape in the area. The proposed improvements represent a significant improvement over the existing site conditions and help realize the City’s goals, including the creation of attractive streetscapes and mixed-use boulevards (as detailed in the Westchester – Playa Del Rey Community Plan).

In addition, the project has been conditioned to include automobile parking spaces both ready for immediate use by electric vehicles (e.g. with electric vehicle chargers installed) and capable of supporting electric vehicles in the future. The project has also been conditioned to provide solar infrastructure. Together, these conditions further support applicable policies in the Health and Wellness Element, Air Quality Element, and Mobility Element of the General Plan by reducing the level of pollution/greenhouse gas emissions, ensuring new development is compatible with alternative fuel vehicles, and encouraging the adoption of low emission fuel sources and supporting infrastructure. These conditions also support good planning practice by promoting overall sustainability and providing additional benefits and conveniences for residents, workers, and visitors.

The project contributes to and furthers the relevant goals, objectives, and policies of the plans that govern land use and development in the City. In addition, the project does not substantially conflict with any applicable plan or other regulation. Therefore, the project substantially conforms with the purpose, intent, and provisions of the General Plan, the applicable Community Plan, and the applicable specific plan.

11. The project consists of an arrangement of buildings and structures (including height, bulk and setbacks), off-street parking facilities, loading areas, lighting, landscaping, trash collection, and other such pertinent improvements that is or will be compatible with existing and future development on neighboring properties.

The subject property consists of four contiguous lots encompassing a total of approximately 96,000 square feet of lot area (approximately 2.2 acres). The property is located just south of the intersection of Sepulveda Boulevard and Centinela Avenue and has street frontages of approximately 247 feet along the western side of Sepulveda Boulevard and approximately 398 feet along the eastern side of Arizona Avenue. The property is a through-parcel, fronting Sepulveda Boulevard with Arizona Avenue to the rear.

The project site is currently developed with an existing one-story commercial mini-mall, a one-story industrial building, and a one-story detached restaurant building known as Dinah's Family Restaurant, all surrounded by surface vehicle parking. The proposed project involves the maintenance of the existing Dinah's restaurant building, a recognized historic resource, and the demolition of all other existing improvements for the construction, use, and maintenance of a new mixed-use development with 362 residential units above approximately 3,700 square feet of commercial space on the ground floor. The project proposes to provide a total of 520 vehicle parking spaces in one subterranean level and three above-ground levels of parking.

The project and all of its pertinent improvements will be compatible with neighboring properties. The project is a desirable multi-family residential development in a location and neighborhood zoned and designated for such uses. The project site is located in a heavily urbanized area developed with a variety of other similar/compatible uses, including a variety of multi-family residences and high-rise commercial towers. The project will improve an existing aging property and will not preclude any future development on the subject property or on any adjacent property. Accordingly, the project has been designed such that its significant features and improvements will be compatible with the surrounding area, as follows:

Height, Bulk, Setbacks

As depicted in Exhibit "A", the proposed project consists of the maintenance of the existing Dinah's restaurant building and the demolition of the remaining improvements on the subject property for the construction of a new mixed-use multi-family residential and commercial

building with 362 units above approximately 3,700 square feet of new commercial space on the ground floor. At completion, the new building will rise to a maximum height of eight stories and 96 feet (with limited exceptions for roof structures, per the LAMC) and will result in a total FAR of approximately 3.85:1.

The City's zoning regulations, specifically those that govern building height, mass, and location on a property, are intended to ensure that a development is compatible with its surroundings and is appropriate for its location. The underlying C4-1 Zone on the subject property limits the project to a maximum FAR of 1.5:1 with no limit on building height. However, as a Density Bonus development the project is eligible for Incentives to increase the FAR; accordingly, the project is seeking an Incentive to permit the maximum FAR as proposed.

The proposed building mass is consistent/permissible with all applicable zoning regulations and State and City Density Bonus law, and as a result will be compatible with adjacent properties. The project further proposes to meet or exceed all other zoning development standards, such as building height and setbacks. The proposed building will be similar in scale to existing developments in the area and represents an appropriate and desirable transition between the taller existing buildings along Sepulveda Boulevard and Centinela Avenue and lower-density single-family residential neighborhoods away from the arterial roadways. The proposed building's active and transparent façade along Sepulveda Boulevard will complement the commercial uses and arterial corridor, while landscaped buffer areas provide additional setbacks and minimize potential impacts on adjacent properties. Therefore, the project is an appropriate development in this location and will be compatible with developments in the surrounding area. The project further varies building mass with interesting architectural features to accommodate the existing Dinah's restaurant building to remain as well as the provision of open space, including an outdoor central courtyard on the fourth floor. Additionally, the project includes landscaped open space areas and/or planters and trees throughout the property which will provide attractive and functional buffering to adjacent properties. Therefore, the project's height, mass, and setbacks will be compatible with adjacent properties.

Site Layout – Parking, Trash Collection, Landscaping, and Lighting

At the ground floor, the project proposes both the existing commercial use to remain and new commercial space, street-facing townhouse-style residential units, and a prominent residential lobby fronting the main street, with vehicle parking located to the rear. Vehicle parking will be provided in one subterranean level, on the ground floor, and on a portion of the second and third floors. Trash collection will be provided on the ground floor in the parking area, behind the proposed new commercial space and just off of the driveway on Sepulveda Boulevard.

The proposed site layout is thoughtful and will minimize any potential impacts to the project's surroundings. The proposed trash collection location is also easily accessible yet fully enclosed within the building footprint, thereby shielding the trash enclosures from view by adjacent properties or the public right-of-way. Short-term bicycle parking is proposed in multiple locations at the ground level and along the project's street frontages, thereby facilitating access, while long-term bicycle parking is primarily stored in dedicated enclosures in the parking levels.

The project includes several distinct open space areas, including an open outdoor fourth-floor courtyard and pool deck, a rooftop deck, and various indoor recreation rooms and amenity spaces. Not only will the outdoor areas be landscaped with planters and provide outdoor recreation and amenity spaces, but they will provide building mass relief and allow light and air to flow to interior units. The project will also notably improve the northern property line, by developing public-facing townhouse-style residential units with patios, light fencing, and

planters where there is currently a blank building wall and unimproved landscaping. As the existing site conditions consist of unattractive buildings and surface parking, the project will significantly enhance the physical appearance of the property as well as the relationship of the subject property to adjacent properties. All of the proposed recreation spaces and landscaping will enhance both the project and the greater neighborhood as a whole, and as a result the project will be cohesive and integrate well with the surrounding community. Accordingly, all of the proposed open spaces and landscaping will enhance the property and will be compatible with other improvements on the subject property and abutting properties. In addition, the project has been designed and conditioned to provide extensive transparency and glazing along the primary street frontages, which will further enhance the project's surroundings and promote the project's compatibility with the surrounding neighborhood.

Furthermore, appropriate lighting and additional landscaping have been conditioned and will be provided in accordance with the requirements of the LAMC. The project has been designed to provide adequate lighting for operation and safety and to meet all regulations while limiting potential impacts. Additional landscaping such as street trees will be provided throughout the property per the requirements of the applicable City agencies. Therefore, for all of these reasons, the project will significantly improve the physical appearance of the property and will be compatible with existing and future development on the subject property and on surrounding properties.

12. Any residential project provides recreational and service amenities in order to improve habitability for the residents and minimize impacts on neighboring properties.

The project proposes approximately 29,000 square feet of open space. Proposed common open spaces include a main outdoor central courtyard and pool deck, various indoor amenity spaces on the fourth, fifth, and eighth levels, and a rooftop deck. Proposed private open space consists of patios for the residential units on the ground floor facing Centinela Avenue, and balconies at various residential units on the ground floor and fourth through eighth levels. All outdoor common areas will be landscaped with planters and trees. The project proposes to provide at least 91 trees, including both on-site and street trees in the public right-of-way. The project also proposes landscaped buffer/setback areas along the northern property line (abutting a thin property in the City of Culver City separating the project site and Centinela Avenue) and the southern property line (abutting an adjacent hotel property), although these areas are not useable. Additional landscaping including tree/planter/parkway improvements are proposed for the sidewalk along Arizona Avenue abutting the project site.

The project will provide a wide array of high-quality recreational and service amenities for residents and guests. The courtyard/pool deck, rooftop deck, and private patios and balconies will provide landscaping and outdoor space. The interior common rooms will offer residents and guests a wide variety of amenities; in particular, the multiple interior common rooms can be configured for the provision of many different services, such as a movie screening room, lounge, library, or conference room/work space. In addition, all of the outdoor spaces will be landscaped and planted with a variety of trees and other plants, which will provide shade and greenery for residents and patrons of the project, enhance the physical environment, and reduce potential impacts on adjacent properties. Therefore, the project provides many different recreational and service amenities which will improve habitability for residents and the community alike, and will minimize impacts on neighboring properties.

Waiver of Dedication and Improvement Findings

13. The dedication or improvement requirement is physically impractical.

The subject property consists of four contiguous lots encompassing a total of approximately 96,000 square feet of lot area (approximately 2.2 acres). The property is located just south of the intersection of Sepulveda Boulevard and Centinela Avenue and has street frontages of approximately 247 feet along the western side of Sepulveda Boulevard and approximately 398 feet along the eastern side of Arizona Avenue. The property is a through-parcel, fronting Sepulveda Boulevard with Arizona Avenue to the rear.

Sepulveda Boulevard is a designated Boulevard I, which requires a designated right-of-way width of 136 feet. In order to comply with the applicable Mobility Plan 2035 standards, per the BOE, the project would be required to dedicate and improve 18 feet along Sepulveda Boulevard. However, such dedication and widening would be impractical in this case. The existing Dinah's restaurant building is a recognized historic resource which the project proposes to maintain, in order to prevent any significant environmental impacts with regards to historic resources. This building is currently built to the front property line along Sepulveda Boulevard; as such, any required dedication and improvement along Sepulveda Boulevard would preclude the maintenance of the building and result in the destruction of a historic resource. Accordingly, it would be physically impractical to require the dedication and improvement along Sepulveda Boulevard in this location. Therefore, the waiver of the otherwise required dedication and improvements along Sepulveda Boulevard is appropriate for the request herein.

Environmental Findings

- 14. SCEA.** Pursuant to Public Resources Code (PRC) Section 21155.2, the City Council found, after consideration of the whole of the administrative record, including the SB 375 Sustainable Communities Environmental Assessment, No. ENV-2021-4938-SCEA ("SCEA"), and all comments received, after imposition of all mitigation measures there is no substantial evidence that the Project will have a significant effect on the environment. On September 30, 2022, the City Council adopted the SCEA, Mitigation Measures, Mitigation Monitoring and Reporting Program, and related environmental findings prepared for the SCEA.
- 15. Flood Insurance.** The National Flood Insurance Program rate maps, which are a part of the Flood Hazard Management Specific Plan adopted by the City Council by Ordinance No. 172,081, have been reviewed and it has been determined that this project is located outside of a flood zone.

COVID-19 UPDATE

Interim Appeal Filing Procedures

Fall 2020



Consistent with Mayor Eric Garcetti's "Safer At Home" directives to help slow the spread of COVID-19, City Planning has implemented new procedures for the filing of appeals for non-applicants that eliminate or minimize in-person interaction.

OPTION 1: Online Appeal Portal

(planning.lacity.org/development-services/appeal-application-online)

Entitlement and CEQA appeals can be submitted online and payment can be made by credit card or e-check. The online appeal portal allows appellants to fill out and submit the appeal application directly to the Development Services Center (DSC). Once the appeal is accepted, the portal allows for appellants to submit a credit card payment, enabling the appeal and payment to be submitted entirely electronically. A 2.7% credit card processing service fee will be charged - there is no charge for paying online by e-check.

Appeals should be filed early to ensure DSC staff has adequate time to review and accept the documents, and to allow Appellants time to submit payment. On the final day to file an appeal, the application must be submitted and paid for by 4:30PM (PT). Should the final day fall on a weekend or legal holiday, the time for filing an appeal shall be extended to 4:30PM (PT) on the next succeeding working day. Building and Safety appeals (LAMC Section 12.26K) can only be filed using Option 2 below.

OPTION 2: Drop off at DSC

An appellant may continue to submit an appeal application and payment at any of the three Development Services Center (DSC) locations. City Planning established drop off areas at the DSCs with physical boxes where appellants can drop.

Metro DSC

(213) 482-7077
201 N. Figueroa Street
Los Angeles, CA 90012

Van Nuys DSC

(818) 374-5050
6262 Van Nuys Boulevard
Van Nuys, CA 91401

West Los Angeles DSC

(310) 231-2901
1828 Sawtelle Boulevard
West Los Angeles, CA 90025

City Planning staff will follow up with the Appellant via email and/or phone to:

- Confirm that the appeal package is complete and meets the applicable LAMC provisions
- Provide a receipt for payment