COUNTY CLERK'S USE

CITY OF LOS ANGELES
OFFICE OF THE CITY CLERK
200 NORTH SPRING STREET, ROOM 395
LOS ANGELES, CALIFORNIA 90012

CALIFORNIA ENVIRONMENTAL QUALITY ACT

NOTICE OF EXEMPTION

(PRC Section 21152; CEQA Guidelines Section 15062)

Pursuant to Public Resources Code § 21152(b) and CEQA Guidelines § 15062, the notice should be posted with the County Clerk by mailing the form and posting fee payment to the following address: Los Angeles County Clerk/Recorder, Environmental Notices, P.O. Box 1208, Norwalk, CA 90650. Pursuant to Public Resources Code § 21167 (d), the posting of this notice starts a 35-day statute of limitations on court challenges to reliance on an exemption for the project. Failure to file this notice as provided above, results in the statute of limitations being extended to 180 days.

PARENT CASE NUMBER(S) / REQUESTED ENTITLEMENTS
CPC-2023-481-DB-HCA / Density Bonus and Housing Crisis Act

LEAD CITY AGENCY	CASE NUMBER
City of Los Angeles (Department of City Planning)	ENV-2023-481-CE
PROJECT TITLE	COUNCIL DISTRICT
Hyperion Apartment	4 – Nithya Raman

PROJECT LOCATION (Street Address and Cross Streets and/or Attached Map) ☐ Map attached.
2336-2346 North Hyperion Avenue, Los Angeles, CA 90027

PROJECT DESCRIPTION:
The demolition of the existing 3 commercial buildings and garage totaling 3,500 total square feet, and the construction, use, and maintenance of a mixed-use, 15-unit residential apartment building with 974 square feet of ground floor commercial. The project is 5 stories, 60 feet in height, and contains 17,893 square feet of floor area for a Floor Area Ratio (FAR) of 2.8:1 on an approximately 10,057.5 square-foot site. The project will reserve 11 percent, or two (2) units, of the total 15 units for Very Low Income Households. The project will include 17 vehicular parking spaces provided across 1 subterranean parking level and 1 ground floor parking level and 30 bicycle parking spaces, including 26 long-term spaces and 4 short-term spaces. The project requests two Off-Menu Density Bonus Incentives to allow for increased FAR and building height. The subject property contains no protected trees, as stated in the Tree Disclosure Statement dated January 23, 2023. In conjunction with the construction of the apartment building, the Project also submitted application for a Haul Route for the export of approximately 2,025 cubic yards of earth.

☐ Additional page(s) attached.

NAME OF APPLICANT / OWNER:
Sara Houghton, three6ixty

CONTACT PERSON (If different from Applicant/Owner above)	(AREA CODE) TELEPHONE NUMBER | EXT.
Christoper Kingsling, Craig Kinsling, CK Development	(310) 204-3500

EXEMPT STATUS: (Check all boxes, and include all exemptions, that apply and provide relevant citations.)

STATE CEQA STATUTE & GUIDELINES

☐ STATUTORY EXEMPTION(S)

Public Resources Code Section(s) _____

☒ CATEGORICAL EXEMPTION(S) (State CEQA Guidelines Sec. 15301-15333 / Class 1-Class 33)

CEQA Guideline Section(s) / Class(es) **Section 15332 / Class 32**

☐ OTHER BASIS FOR EXEMPTION (E.g., CEQA Guidelines Section 15061(b)(3) or (b)(4) or Section 15378(b))

_____

JUSTIFICATION FOR PROJECT EXEMPTION: ☒ Additional page(s) attached
See attached CE Justification
☒ None of the exceptions in CEQA Guidelines Section 15300.2 to the categorical exemption(s) apply to the Project.
☐ The project is identified in one or more of the list of activities in the City of Los Angeles CEQA Guidelines as cited in the justification.

IF FILED BY APPLICANT, ATTACH CERTIFIED DOCUMENT ISSUED BY THE CITY PLANNING DEPARTMENT STATING THAT THE DEPARTMENT HAS FOUND THE PROJECT TO BE EXEMPT.
If different from the applicant, the identity of the person undertaking the project.

CITY STAFF USE ONLY:

CITY STAFF NAME AND SIGNATURE	STAFF TITLE
Marie Pichay	City Planning Associate

ENTITLEMENTS APPROVED
Density Bonus and Housing Crisis Act

DISTRIBUTION: County Clerk, Agency Record
Rev. 6-22-2021

JUSTIFICATION FOR PROJECT EXEMPTION CASE NO. ENV-2023-481-CE

The Department of City Planning has determined that, based on the whole of the administrative record, that the project located at 2336 – 2346 North Hyperion Avenue with associated case file ENV-2023-481-CE is exempt from CEQA pursuant to CEQA Guidelines, Section 15332, Class 32 (Infill Development Project), and that there is no substantial evidence demonstrating that an Exception to a Categorical Exemption pursuant to CEQA Guidelines, Section 15300.2 applies.

A project qualifies for a Class 32 Categorical Exemption if it is developed on an infill site and meets the following criteria:

(a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with the applicable zoning designation and regulations;
(b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses;
(c) The project site has no value as habitat for endangered, rare or threatened species;
(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality; and
(e) The site can be adequately served by all required utilities and public services.

The proposed project is for the demolition of the existing three (3) commercial structures and garage totaling approximately 3,500 square feet, and the construction, use, and maintenance of a mixed-use, 15-unit apartment building on an approximately 10,057.5 square-foot site. The proposed building will be four (4) stories and rise to a height of 60 feet, including three (3) residential floors, ground-floor parking, and 974 square feet of ground-floor commercial space, and one (1) level of subterranean parking. The project will have a total floor area of 17,893 square feet with a unit mix of 12 one-bedroom units, and three (3) two-bedroom units. The applicant proposes to reserve 11 percent, or two (2) units, for Very Low-Income Households. The project will include 17 vehicular parking spaces 30 bicycle parking spaces, including 26 long-term spaces and four (4) short-term spaces. A total of 1,578 square feet of open space will be provided, including a 393 square-foot resident lounge on the ground floor, a 485 square-foot garden on the second floor, and a 700 square-foot roof deck. The subject property does not contain any protected trees or shrubs on-site or in the right-of-way, as shown in the Tree Disclosure Statement (Attachment A) dated January 23, 2023. There are two (2) existing palm trees in the right-of-way, both of which are proposed to be retained. The project will provide four

(4) trees that are 24" box minimum. In conjunction with the construction of the apartment building, the Project submitted an application for a Haul Route for the export of approximately 2,025 cubic yards of earth.

A project requires a Haul Route when a site is located in a Special Bureau of Engineering (BOE) Grading Area and involves the import or export of earth material of 1,000 cubic yards or more. The subject site is located within a Special Bureau of Engineering (BOE) Grading Area and proposes the export of 2,025 cubic yards of earth; therefore, a Haul Route is required. Specific Regulatory Compliance Measures (RCMs) in the City of Los Angeles regulates the grading and construction of projects in this particular type of "sensitive" locations and will reduce any potential impacts to less than significant.

A project qualifies for a Class 32 Categorical Exemption if it is developed on an infill site and meets the following criteria:

(a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with the applicable zoning designation and regulations.

The site is located within the Silver Lake – Echo Park – Elysian Valley Community Plan. It is zoned [Q]C2-1VL with a General Plan Land Use Designation of Community Commercial. Per the Silver Lake – Echo Park – Elysian Valley Community Plan, the corresponding zones for Community Commercial land use are RAS3, CR, C2, C4, and P. Therefore, the zoning of the project site is consistent with the General Plan designation. The [Q] Qualified Condition No. 2 in Ordinance No. 176,826 prohibits certain automotive uses on site and limits the maximum building height to 30 feet in height. The applicant requests two Off-Menu Density Bonus Incentives, 1) to allow a maximum of 60 feet in height, in lieu of the permitted 30 feet per Ordinance No. 176,826. 2) to a allow a maximum floor area ratio (FAR) of 2.025:1 in lieu of the permitted 1.5:1. Additionally, the site is located within an Urban Agriculture Incentive Zone, a Very High Fire Severity Zone, and is located approximately 0.085 km from the Upper Elysian Park Fault. As shown in the case file, the project is consistent with the applicable Silver Lake – Echo Park – Elysian Valley Community Plan designation and policies and all applicable zoning designations and regulations. The site is not located within the boundaries of or subject to any specific plan, community design overlay, or interim control ordinance. In addition, no Zone Changes, Zone Variances, or Specific Plan Exceptions are required for this project.

(b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.

The project site is wholly within the City of Los Angeles, on a site that is comprised of one (1) lot that is approximately 0.231 acres (10,057.5 square feet), which is less than five acres. Lots adjacent to the subject site are developed with commercial uses and single and multi-family residences.

(c) The project site has no value as habitat for endangered, rare, or threatened species.

The project site is previously disturbed and surrounded by development and therefore is not, and has no value as, a habitat for endangered, rare or threatened species. Furthermore, there are no protected tree or shrub species on the site or in the adjacent right-of-way as identified in the Tree Disclosure Statement dated January 23, 2023. The subject property does not contain any protected trees or shrubs on-site or in the right-of-way, as shown in the

Tree Disclosure Statement (Attachment A) dated January 23, 2023. There are two (2) existing palm trees in the right-of-way, both of which are proposed to be retained. The project will provide four (4) trees that are 24" box minimum.

(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.

The project will be subject to Regulatory Compliance Measures (RCMs), which require compliance with the City of Los Angeles Noise Ordinance, pollutant discharge, dewatering, stormwater mitigations; and Best Management Practices (BMPs) for stormwater runoff. These RCMs regulate impacts related to construction and operational noise and will ensure the project will not have significant impacts on noise and water. A Noise Technical Report (Attachment B), dated November 2022 and prepared by DKA Planning, was prepared to evaluate the noise impacts from construction and operation of the proposed project. Based on the findings of the report, the project's potential noise effects during construction and operations would be less than significant and would not exceed the City's applicable noise standards. The following standard Regulatory Compliance Measure shall apply:

- **Regulatory Compliance Measure RC-NO-1 (Demolition, Grading, and Construction Activities):** The project shall comply with the City of Los Angeles Noise Ordinance No. 144,331 and 161,574 and any subsequent ordinances, which prohibit the emission or creation of noise beyond certain levels at adjacent uses unless technically infeasible.

Furthermore, a Vehicle Miles Traveled (VMT) calculator analysis (Attachment C) shows that the project generates 92 daily vehicle trips and does not exceed the threshold criteria established by the Los Angeles Department of Transportation (LADOT) of 250 daily vehicle trips for preparing a traffic study. Therefore, the project will not have any significant impacts to traffic. An Air Quality Impact Analysis (Attachment D), dated November 2022 and prepared by DKA Planning, was prepared to evaluate the air quality impacts from construction and operation of the proposed project. Based on the findings of the report, the project's potential air quality impact during construction and operations would be less than significant and would not exceed the established SCAQMD construction and operational thresholds.

Given that the project is located within a Special Bureau of Engineering (BOE) Grading Area, specifically the following RCM would apply:

- **Regulatory Compliance Measure RC-GEO-2 (Hillside Grading Area):** The grading plan shall conform with the City's Landform Grading Manual guidelines, subject to approval by the Advisory Agency and the Department of Building and Safety's Grading Division. Appropriate erosion control and drainage devices shall be provided to the satisfaction of the Building and Safety Department. These measures include interceptor terraces, berms, vee-channels, and inlet and outlet structures, as specified by Section 91.7013 of the Building Code, including planting fast-growing annual and perennial grasses in areas where construction is not immediately planned.

Therefore, the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.

(e) The site can be adequately served by all required utilities and public services.

The project site will be adequately served by all public utilities and services given that the construction of a new mixed-use, 15-residential-unit development will be on a site which has been previously developed and is consistent with the General Plan.

Therefore, the project meets all the criteria for the Class 32 Exemption.

Class 32 Exceptions

The City has considered whether the proposed Project is subject to any of the five (5) exceptions that would prohibit the use of a categorical exemption as set forth in State CEQA Guidelines Section 15300.2. The five (5) exceptions to this Exemption are: (a) Cumulative Impacts; (b) Significant Effect; (c) Scenic Highways; (d) Hazardous Waste Sites; and (e) Historical Resources.

(a) *Cumulative Impacts. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.*

The site is currently developed with three (3) existing commercial structures and a garage that total approximately 3,500 square feet. The project is for the demolition of all of the existing buildings and garage, and the construction, use, and maintenance of a mixed-use, 15-unit apartment building with 974 square feet of ground floor commercial, and that is four (4) stories with a subterranean parking level, a maximum height of 60 feet and contains 17,893 square feet of floor area. The project also proposes the export of 2,025 cubic yards of earth.

The haul route approval will be subject to recommended conditions prepared by the Los Angeles Department of Transportation (LADOT) and considered by the Board of Building and Safety Commissioners. These conditions will reduce the impacts of construction related hauling activity, monitor the traffic effects of hauling, and reduce haul trips in response to congestion. Furthermore, the Department of Building and Safety (DBS) staggers the haul route schedules to ensure that all of the haul routes do not occur simultaneously. In the event that another proposed haul route utilizes the same streets as the haul route proposed for this project, it is anticipated that the projects would be in different stages of construction and concurrent use of the streets for purposes of hauling is anticipated to be minimal. Additionally, each project would be subject to the review of LADOT and the Bureau of Street Services and conditions of approval issued by the Board of Building and Safety Commissioners.

Staff conducted a ZIMAS Case Number Report using a 500-foot radius to assess the number of the same type of projects in the same place. At the time of writing this report, there were no other concurrent projects of the same type within a 500-foot radius of the project. Additionally, as mentioned previously, the proposed project is subject to Regulatory Compliance Measures (RCMs) related to air quality, noise, hazardous materials, geology, water quality and transportation. Those RCMs would ensure the project impacts are less than significant. Since the project impacts are less than significant, the project's contribution to cumulative impacts would not be cumulatively considerable and therefore would be less than significant.

(b) Significant Effect. *A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.*

The project proposes to construct a mixed-use, 15-unit apartment building that is four (4) stories in height, in an area zoned and designated for such development. The site is currently developed with three (3) existing commercial buildings and a garage, totaling approximately 3,500 square feet. Surrounding lots are developed with residential and commercial uses. Properties on the easterly side of Hyperion Avenue to the north and south are zoned [Q]C2-1VL and are improved with a mix of commercial uses including retail, office, and education uses. Properties on the westerly side of Hyperion Avenue are zoned C1-1D and are generally improved with multi-family and single-family residential uses. Properties to the east of the project site are zoned RD2-1VL and improved with multi-family and single-family residential uses. The project utilizes a Floor Area Ratio (FAR) of approximately 1.8:1 on a site that is permitted to have a maximum FAR of 2.025:1 per the Density Bonus Program. Thus, there are no unusual circumstances which may lead to a significant effect on the environment, and this exception does not apply.

(c) Scenic Highways. *A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway.*

The only State Scenic Highway within the City of Los Angeles is the Topanga Canyon State Scenic Highway, State Route 27, which travels through a portion of Topanga State Park, is located approximately 24 miles northwest of the site. Therefore, the Project will not result in damage to any scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway, and this exception does not apply.

(d) Hazardous Waste. *A categorical exemption shall not apply for a project located on a site included on any list compiled under Section 65962.5 of the Government Code.*

According to Envirostor, the State of California's database of Hazardous Waste Sites, neither the Subject Site nor any site in the vicinity, is identified as a hazardous waste site. Furthermore, the building permit history for the Project Site does not indicate the Site may be hazardous or otherwise contaminated. Therefore, this exception does not apply.

(e) Historic Resources. *A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.*

The Project Site is not identified as a historic resource by local or state agencies, and the Project Site has not been determined to be eligible for listing in the National Register of Historic Places, California Register of Historical Resources, the Los Angeles Historic-Cultural Monuments Register, and/or any local register; and was not found to be a potential historic resource based on the City's HistoricPlacesLA website or SurveyLA, the citywide survey of Los Angeles. In an email correspondence dated March 7, 2023, the Office of Historic Resources confirmed that the properties have not been identified as historic resources for purposes of the California Environmental Quality Act (CEQA) and have not been identified through SurveyLA. Based on this, the Project will not result in a substantial adverse change to the significance of a historical resource; thus, this exception does not apply.

Attachments:

A – Tree Disclosure Statement
B – Noise Technical Report
C – Vehicle Miles Travelled (VMT) Analysis
D – Air Quality Technical Report

ATTACHMENT A – TREE DISCLOSURE STATEMENT

APPLICATIONS

TREE DISCLOSURE STATEMENT

Los Angeles Municipal Code (LAMC) Section 46.00 requires disclosure and protection of certain trees located on private and public property, and that they be shown on submitted and approved site plans. Any discretionary application that includes changes to the building footprint, including demolition or grading permit applications, shall provide a Tree Disclosure Statement completed and signed by the Property Owner.

If there are any protected trees or protected shrubs on the project site and/or any trees within the adjacent public right-of-way that may be impacted or removed as a result of the project, a Tree Report (CP-4068) will be required, and the field visit must be conducted by a qualified Tree Expert, prepared and conducted within the last 12 months.

Property Address: 2336-2346 N. Hyperion Avenue

Date of Field Visit: _____

Does the property contain any of the following protected trees or shrubs?

☐ **Yes** (Mark any that apply below)

- ☐ Oak, including Valley Oak *(Quercus lobota)* and California Live Oak (*Quercus agrifolia*) or any other tree of the oak genus indigenous to California, but excluding the Scrub Oak
- ☐ Southern California Black Walnut (*Juglans californica*)
- ☐ Western Sycamore (*Platanus racemosa*)
- ☐ California Bay (*Umbellularia californica*)
- ☐ Mexican Elderberry (*Sambucus mexicana*)
- ☐ Toyon (*Heteromeles arbutifolia*)

☑ **No**

Does the property contain any street trees in the adjacent public right-of-way?

☐ **Yes** ☑ **No**

Does the project occur within the Mt. Washington/Glassell Park Specific Plan Area and contain any trees 12 inches or more diameter at 4.5 feet above average natural grade at base of tree and/or is more than 35 feet in height?

☐ **Yes** ☑ **No**

Does the project occur within the Coastal Zone and contain any of the following trees?

- ☐ **Yes** (Mark any that apply below)
  - ☐ Blue Gum Eucalyptus *(Eucalyptus globulus)*
  - ☐ Red River Gum Eucalyptus *(Eucalyptus camaldulensis)*
  - ☐ Other Eucalyptus species
- ☑ **No**

Tree Expert Credentials (if applicable)

Name of Tree Expert: _____

Mark which of the following qualifications apply:

- ☐ Certified arborist with the International Society of Arboriculture who holds a license as an agricultural pest control advisor
- ☐ Certified arborist with the International Society of Arboriculture who is a licensed landscape architect
- ☐ Registered consulting arborist with the American Society of Consulting Arborists

Certification/License No.: _____

Owner's Declaration

I acknowledge and understand that knowingly or negligently providing false or misleading information in response to this disclosure requirement constitutes a violation of the Los Angeles Municipal Code Section 46.00, which can lead to criminal and/or civil legal action. I certify that the information provided on this form relating to the project site and any of the above biological resources is accurate to the best of my knowledge.

Name of the Owner (Print) Christopher Kinsling

Owner Signature _____ Date 1/23/23

ATTACHMENT B – NOISE TECHNICAL REPORT

2346 HYPERION AVENUE PROJECT

Noise Technical Report

Prepared by DKA Planning
20445 Prospect Road, Suite C
San Jose, CA 95129
November 2022

during that hour. L_{eq} can be thought of as a continuous noise level of a certain period equivalent in energy content to a fluctuating noise level of that same period.

- Maximum Noise Level (L_{max}): L_{max} represents the maximum instantaneous noise level measured during a given time period.

- Community Noise Equivalent Level (CNEL): CNEL is an adjusted noise measurement scale of average sound level during a 24-hour period. Due to increased noise sensitivities during evening and night hours, human reaction to sound between 7:00 P.M. and 10:00 P.M. is as if it were actually 5 dBA higher than had it occurred between 7:00 A.M. and 7:00 P.M. From 10:00 P.M. to 7:00 A.M., humans perceive sound as if it were 10 dBA higher. To account for these sensitivities, CNEL figures are obtained by adding an additional 5 dBA to evening noise levels between 7:00 P.M. and 10:00 P.M. and 10 dBA to nighttime noise levels between 10:00 P.M. and 7:00 A.M. As such, 24-hour CNEL figures are always higher than their corresponding actual 24-hour averages.

Effects of Noise. The degree to which noise can impact an environment ranges from levels that interfere with speech and sleep to levels that can cause adverse health effects. Most human response to noise is subjective. Factors that influence individual responses include the intensity, frequency, and pattern of noise; the amount of background noise present; and the nature of work or human activity exposed to intruding noise. According to the National Institute of Health (NIH), extended or repeated exposure to sounds at or above 85 dB can cause hearing loss. Sounds of 70 dBA or less, even after continuous exposure, are unlikely to cause hearing loss.[1] The World Health Organization (WHO) reports that adults should not be exposed to sudden "impulse" noise events of 140 dB or greater. For children, this limit is 120 dB.[2]

Exposure to elevated nighttime noise levels can disrupt sleep, leading to increased levels of fatigue and decreased work or school performance. For the preservation of healthy sleeping environments, the WHO recommends that continuous interior noise levels not exceed 30 dBA and that individual noise events of 45 dBA or higher be avoided.[3] Assuming a conservative exterior to interior sound reduction of 15 dBA, continuous exterior noise levels should therefore not exceed 45 dBA. Individual exterior events of 60 dBA or higher should also be limited. Some epidemiological studies have shown a weak association between long-term exposure to noise levels of 65 to 70 dBA and cardiovascular effects, including ischemic heart disease and hypertension. However, at this time, the relationship is largely inconclusive.

People with normal hearing sensitivity can recognize small changes in sound levels of approximately 3 dBA. Changes of at least 5 dBA can be readily noticeable while sound level

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1 National Institute of Health, National Institute on Deafness and Other Communication, www.nidcd.nih.gov/health/noise-induced-hearing-loss.

2 World Health Organization, Guidelines for Community Noise, 1999.

3 Ibid.

The State has also established noise insulation standards for new multi-family residential units, hotels, and motels that are subject to relatively high levels of noise from transportation. The noise insulation standards, collectively referred to as the California Noise Insulation Standards (Title 24, California Code of Regulations) set forth an interior standard of 45 dBA CNEL for habitable rooms. The standards require an acoustical analysis which indicates that dwelling units meet this interior standard where such units are proposed in areas subject to exterior noise levels greater than 60 dBA CNEL. Local jurisdictions typically enforce the California Noise Insulation Standards through the building permit application process.

Los Angeles County Airport Land Use Commission Comprehensive Land Use Plan. In Los Angeles County, the Regional Planning Commission has the responsibility for acting as the Airport Land Use Commission and for coordinating the airport planning of public agencies within the County. The Airport Land Use Commission coordinates planning for the areas surrounding public use airports. The Comprehensive Land Use Plan provides for the orderly expansion of Los Angeles County's public use airports and the areas surrounding them. It is intended to provide for the adoption of land use measures that will minimize the public's exposure to excessive noise and safety hazards. In formulating the Comprehensive Land Use Plan, the Los Angeles County Airport Land Use Commission has established provisions for safety, noise insulation, and the regulation of building height within areas adjacent to each of the public airports in the County.

City of Los Angeles General Plan Noise Element. The City of Los Angeles General Plan includes a Noise Element that includes policies and standards to guide the control of noise to protect residents, workers, and visitors. Its primary goal is to regulate long-term noise impacts to preserve acceptable noise environments for all types of land uses. It includes programs applicable to construction projects that call for protection of noise sensitive uses and use of best practices to minimize short-term noise impacts. However, the Noise Element contains no quantitative or other thresholds of significance for evaluating a project's noise impacts. Instead, it adopts the State's guidance on noise and land use compatibility, shown in Table 2, "to help guide determination of appropriate land use and mitigation measures vis-à-vis existing or anticipated ambient noise levels." It also includes the following objective and policy that are relevant for the Proposed Project:

> **Objective 2** (Non-airport): Reduce or eliminate non-airport related intrusive noise, especially relative to noise sensitive uses.
>
> > **Policy 2.2:** Enforce and/or implement applicable city, state, and federal regulations intended to mitigate proposed noise producing activities, reduce intrusive noise and alleviate noise that is deemed a public nuisance.

City of Los Angeles Municipal Code. The City of Los Angeles Municipal Code (LAMC) contains regulations that would regulate noise from the Project's temporary construction activities. Section 41.40(a) would prohibit construction activities between 9:00 P.M. and 7:00 A.M., Monday through Friday. Subdivision (c) would further prohibit such activities from occurring before 8:00 A.M. or after 6:00 P.M. on any Saturday or national holiday, or at any time on any Sunday. These restrictions serve to limit specific Project construction activities to Monday through Friday 7:00 A.M. to 9:00 P.M., and 8:00 A.M. to 6:00 P.M. on Saturdays or national holidays.

SEC.41.40. NOISE DUE TO CONSTRUCTION, EXCAVATION WORK—WHEN PROHIBITED.

(a) No person shall, between the hours of 9:00 P.M. and 7:00 A.M. of the following day, perform any construction or repair work of any kind upon, or any excavating for, any building or structure, where any of the foregoing entails the use of any power drive drill, riveting machine excavator or any other machine, tool, device or equipment which makes loud noises to the disturbance of persons occupying sleeping quarters in any dwelling, hotel or apartment or other place of residence. In addition, the operation, repair or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited during the hours herein specified. Any person who knowingly and willfully violates the foregoing provision shall be deemed guilty of a misdemeanor punishable as elsewhere provided in this Code.

(c) No person, other than an individual homeowner engaged in the repair or construction of his single-family dwelling shall perform any construction or repair work of any kind upon, or any earth grading for, any building or structure located on land developed with residential buildings under the provisions of Chapter I of this Code, or perform such work within 500 feet of land so occupied, before 8:00 A.M. or after 6:00 P.M. on any Saturday or national holiday nor at any time on any Sunday. In addition, the operation, repair, or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited on Saturdays and on Sundays during the hours herein specific…

Section 112.05 of the LAMC establishes noise limits for powered equipment and hand tools operated in a residential zone or within 500 feet of any residential zone. Of particular importance to construction activities is subdivision (a), which institutes a maximum noise limit of 75 dBA as measured at a distance of 50 feet from the activity for the types of construction vehicles and equipment that would likely be used in the construction of the Project. However, the LAMC notes that these limitations would not necessarily apply if it can be proven that the Project's compliance would be technically infeasible despite the use of noise-reducing means or methods.

SEC. 112.05. MAXIMUM NOISE LEVEL OF POWERED EQUIPMENT OR POWERED HAND TOOLS

Between the hours of 7:00 A.M. and 10:00 P.M., in any residential zone of the City or within 500 feet thereof, no person shall operate or cause to be operated any powered equipment or powered hand tool that produces a maximum noise level exceeding the following noise limits at a distance of 50 feet therefrom:

(a) 75 dBA for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic or other powered equipment;

(b) 75 dBA for powered equipment of 20 HP or less intended for infrequent use in residential areas, including chain saws, log chippers and powered hand tools;

Section 112.02 would prevent Project heating, ventilation, and air conditioning (HVAC) systems and other mechanical equipment from elevating ambient noise levels by more than 5 dBA.

> *SEC.112.02. AIR CONDITIONING, REFRIGERATION, HEATING, PLUMBING, FILTERING EQUIPMENT*
>
> *(a) It shall be unlawful for any person, within any zone of the city, to operate any air conditioning, refrigeration or heating equipment for any residence or other structure or to operate any pumping, filtering or heating equipment for any pool or reservoir in such manner as to create any noise which would cause the noise level on the premises of any other occupied property … to exceed the ambient noise level by more than five decibels.*

The LAMC also provides regulations regarding vehicle-related noise, including Sections 114.02, 114.03, and 114.06. Section 114.02 prohibits the operation of any motor driven vehicles upon any property within the City in a manner that would cause the noise level on the premises of any occupied residential property to exceed the ambient noise level by more than 5 dBA. Section 114.03 prohibits loading and unloading causing any impulsive sound, raucous or unnecessary noise within 200 feet of any residential building between the hours of 10:00 P.M. and 7:00 A.M. Section 114.06 requires vehicle theft alarm systems to be silenced within five minutes.

Existing Conditions

Noise Sensitive Receptors

The Project Site is located in the Silver Lake neighborhood. Sensitive receptors within 0.25 miles of the Project Site include, but are not limited to, the following representative sampling:

- Residences, Hyperion Avenue (east side); directly north of the Project Site.
- Residences, 2344 Griffith Park Boulevard; directly south of the Project Site.
- Lyric Preschool, 2328 Hyperion Avenue, directly south of the Project Site.
- Residences, 2340 Griffith Park Boulevard; 20 feet east of the Project Site.
- Residences, Hyperion Avenue (west side); 100 feet west of the Project Site.
- Residences, Griffith Park Boulevard (east side); 140 feet east of the Project Site.

Existing Ambient Noise Levels

The Project Site is improved with an 1,800 square-foot commercial building and a 1,752 square-foot commercial plumbing shop, storage building and garage, and 6,650 square-foot surface parking lot.[7] Noise on-site includes a roof-top unit that provides air conditioning for the commercial building fronting Hyperion Avenue that occasionally generate minor levels of noise (approximately 81.9 dBA at one foot of distance).[8] This unit must comply with LAMC Section 112.02, which limits

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7 City of Los Angeles, ZIMAS database, accessed October 31, 2022.

8 City of Pomona, Pomona Ranch Plaza WalMart Expansion Project, Table 4.4-5; August 2014. Source was cluster of mechanical rooftop condensers including two Krack MXE-04 four-fan units and one MXE-02 two-fan unit. Reference noise level based on 30 minutes per hour of activity.

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Figure 1
Noise Measurement Locations

Table 3
Existing Noise Levels

Noise Measurement Locations	Primary Noise Source	Sound Levels		Nearest Sensitive Receptor(s)	Noise/Land Use Compatibility[b]
		dBA (L_{eq})	dBA (CNEL)[a]		
A. 2407 Hyperion Ave.	Traffic on Hyperion Ave.	67.5	65.5	Residences – Hyperion Ave (east and west side)	Conditionally Acceptable
B. Lyric Preschool	Traffic on Hyperion Ave.	70.7	68.7	Lyric Preschool	Conditionally Acceptable
C. 2340 Griffith Park Blvd.	Traffic on Griffith Park Blvd.	56.2	54.2	Residences – 2340 and 2344 Griffith Park Blvd., Griffith Park Blvd. (east side)	Normally Acceptable

[a] Estimated based on short-term (15-minute) noise measurement using Federal Transit Administration procedures from 2018 Transit Noise and Vibration Impact Assessment Manual, Appendix E, Option 4.
[b] Pursuant to California Office of Planning and Research "General Plan Guidelines, Noise Element Guidelines, 2017. When noise measurements apply to two or more land use categories, the more noise-sensitive land use category is used. See Table 2 above for definition of compatibility designations.

Source: DKA Planning, 2022

Thresholds of Significance

Construction Noise Thresholds. Based on guidelines from the City of Los Angeles City Department of Planning, the on-site construction noise impact would be considered significant if:

- Construction activities lasting more than one day would exceed existing ambient exterior sound levels by 10 dBA (hourly L_{eq}) or more at a noise-sensitive use;
- Construction activities lasting more than 10 days in a three-month period would exceed existing ambient exterior noise levels by 5 dBA (hourly L_{eq}) or more at a noise-sensitive use; or
- Construction activities of any duration would exceed the ambient noise level by 5 dBA (hourly L_{eq}) at a noise-sensitive use between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, before 8:00 A.M. or after 6:00 P.M. on Saturday, or at any time on Sunday.

Operational Noise Thresholds. In addition to applicable City standards and guidelines that would regulate or otherwise moderate the Project's operational noise impacts, the following criteria are adopted to assess the impact of the Project's operational noise sources:

- Project operations would cause ambient noise levels at off-site locations to increase by 3 dBA CNEL or more to or within "normally unacceptable" or "clearly unacceptable" noise/land use compatibility categories, as defined by the State's 2017 General Plan Guidelines.
- Project operations would cause any 5 dBA CNEL or greater noise increase.[15]

Analysis of Project Impacts

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact.

Construction

On-Site Construction Activities

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15 As a 3 dBA increase represents a slightly noticeable change in noise level, this threshold considers any increase in ambient noise levels to or within a land use's "normally unacceptable" or "clearly unacceptable" noise/land use compatibility categories to be significant so long as the noise level increase can be considered barely perceptible. In instances where the noise level increase would not necessarily result in "normally unacceptable" or "clearly unacceptable" noise/land use compatibility, a 5 dBA increase is still considered to be significant. Increases less than 3 dBA are unlikely to result in noticeably louder ambient noise conditions and would therefore be considered less than significant.

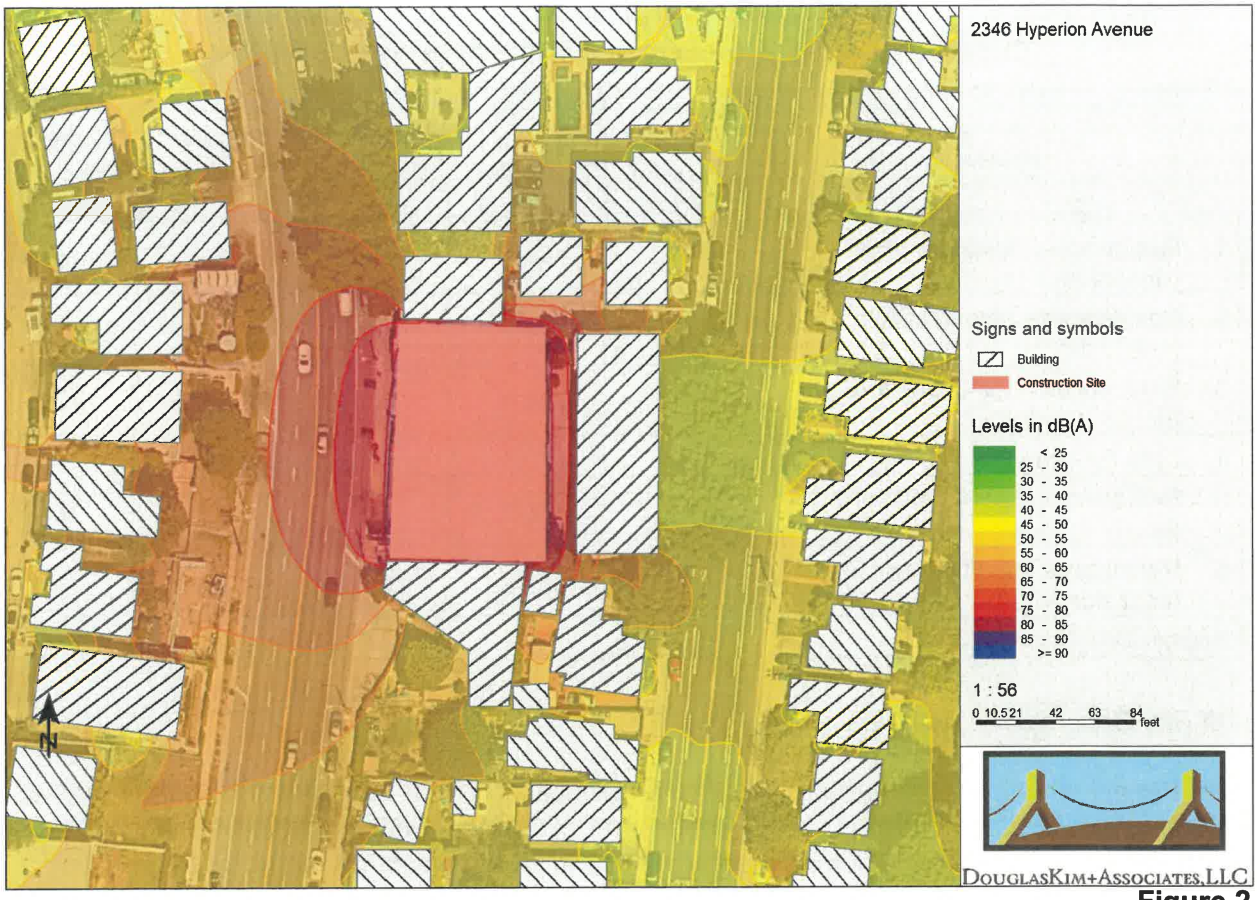

Figure 2
Construction Noise Sound Contours

Because the Project's construction phase would occur for more than three months, the applicable City threshold of significance for the Project's construction noise impacts is an increase of 5 dBA over existing ambient noise levels. As shown in Table 5, when considering ambient noise levels, the use of multiple pieces of powered equipment simultaneously would increase ambient noise negligibly. This assumes the use of best practices techniques required by the City's Building and Safety code, such as temporary sound barriers. These construction noise levels would not exceed the City's significance threshold of 5 dBA. Therefore, the Project's on-site construction noise impact would be less than significant.

Table 6
Construction Vehicle Trips (Maximum Hourly)

Construction Phase	Worker Trips [a]	Vendor Trips	Haul Trips	Total Trips	Percent of Peak A.M. Hour Trips on Hyperion Ave.[e]
Demolition	10	0	17[b]	27	0.8
Grading	8	0	53[c]	61	1.7
Trenching	5	0	0	5	0.1
Building Construction	14	8[d]	0	22	0.6
Architectural Coating	3	0	0	3	0.1

[a] Assumes all worker trips occur in the peak hour of construction activity.
[b] The project would generate 129 haul trips over a 21-day period with seven-hour work days. Because haul trucks emit more noise than passenger vehicles, a 19.1 passenger car equivalency (PCE) was used to convert haul truck trips to a passenger car equivalent.
[c] The project would generate 440 haul trips over a 23-day period with seven-hour work days. Assumes a 19.1 PCE.
[d] This phase would generate about three vendor truck trips daily over a seven-hour work day. Assumes a blend of vehicle types and a 9.55 PCE.
[e] Percent of existing traffic volumes on Hyperion Avenue at Stockton Street.

Source: DKA Planning, 2022

Operation

On-Site Operational Noise

During long-term operations, the Project would produce noise from both on- and off-site sources. As discussed below, the Project would not result in an exposure of persons to or a generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The Project would also not increase surrounding noise levels by more than 5 dBA CNEL, the minimum threshold of significance based on the noise/land use category of sensitive receptors near the Project Site. As a result, the Project's on-site operational noise impacts would be considered less than significant.

Mechanical Equipment

The Project would operate mechanical equipment on the roof that would generate incremental long-term noise impacts. HVAC equipment in the form of large rooftop units suitable for cooling large volumes of a building would be located on the rooftop, approximately 55 feet above grade. This equipment would include a number of sound sources, including compressors, condenser

Outdoor Uses

While most operations would be conducted inside the development, outdoor activities could generate noise that could impact local sensitive receptors. This would include human conversation, trash collection, landscape maintenance, and commercial loading. These are discussed below:

- Human conversation. Noise associated with everyday residential activities would largely be contained internally within the Project. Noise could include passive activities such as human conversation and socializing in outdoor spaces. This includes:

    - Private balconies on the east elevation.

    - Two roof-top decks along the western portion of the roof facing Hyperion Avenue.

    All these areas would be used for socializing and passive recreation (e.g., reading, resting, walking). There would be intermittent activities that would produce negligible impacts from human speech, based on the Lombard effect. This phenomenon recognizes that voice noise levels in face-to-face conversations generally increase proportionally to background ambient noise levels, but only up to approximately 67 dBA at a reference distance of one meter. Specifically, vocal intensity increases about 0.38 dB for every 1.0 dB increase in noise levels above 55 dB, meaning people talk slightly above ambient noise levels in order to communicate.[20]

    Noise from any socializing and passive recreation would not result in significant noise impacts. None of these outdoor spaces would have amplified speakers that could generate noise. Instead, any sound would be acoustic:

    - Socializing and conversations on private balconies would be intermittent. The approximate 35-foot buffer from these balconies to the apartment building to the east would further attenuate any noise.
    - Any noise from passive use of the roof decks would attenuate rapidly and without a line-of-sight to adjacent residences about 30 to 40 feet lower in height, would not elevate ambient noise levels by more than a nominal degree. The presence of the roof edge, parapet, and setback of the deck from the roof's edge would shield any rooftop noise from the sensitive receptors near the Project Site to the west across Hyperion Avenue. In addition, noise-sensitive receptors on the west side of Hyperion Avenue are approximately 100 feet west, with substantial noise from traffic all but negating any noise impact from the roof decks.

- Trash collection. On-site trash and recyclable materials for the residents and retail tenant would be managed from the waste collection area in the parking garage. Haul trucks would access solid waste from Hyperion Avenue, where solid waste activities

20 Acoustical Society of America, Volume 134; Evidence that the Lombard effect is frequency-specific in humans, Stowe and Golob, July 2013.

b. For a project located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact.

The Project Site is located about 7.9 miles southeast of the Hollywood Burbank Airport. Because the Proposed Project would not be located within the vicinity of a private airstrip or within two miles of a public airport, the Project would not expose local workers or residents in the area to excessive noise levels. This would be considered a less than significant impact.

Cumulative Impacts

Construction

On-Site Construction Noise

During construction of the proposed Project, there could be other construction activity in the area that contributes to cumulative noise impacts at sensitive receptors. Noise from construction of development projects is localized and can affect noise-sensitive uses within 500 feet, based on the City's screening criteria. As such, noise from two construction sites within 1,000 feet of each other can contribute to cumulative noise impacts for receptors located between.

There were no related projects identified by the City of Los Angeles within 0.25 miles of the Proposed Project. Nevertheless, construction-related noise levels from any related project would be intermittent and temporary. As with the Project, any related projects would comply with the LAMC's restrictions, including restrictions on construction hours and noise from powered equipment. Noise associated with cumulative construction activities would be reduced to the degree reasonably and technically feasible through proposed mitigation measures for each individual related project and compliance with the noise ordinance.

As a result, there are no reasonably foreseeable related projects that could contribute to cumulative noise impacts at the analyzed sensitive receptors. Based on this, there would not be cumulative noise impacts at any nearby sensitive uses located near the Project Site and related projects in the event of concurrent construction activities.

Off-Site Construction Noise

Other concurrent construction activities from related projects can contribute to cumulative off-site impacts if haul trucks, vendor trucks, or worker trips for any related project(s) were to utilize the same roadways. Distributing trips to and from each related project construction site substantially reduces the potential that cumulative development could more than double traffic volumes on existing streets, which would be necessary to increase ambient noise levels by 3 dBA. The Proposed Project would contribute up to 61 peak hourly PCE vehicle trips, which would represent about 1.7 percent of traffic volumes on Hyperion Avenue, which carries about 3,556 vehicles at

TECHNICAL APPENDIX

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Figure 1
Noise Measurement Locations

Date/Time	Lapk-1	Lasmn-1	Lasmx-1	Leq-1
10/4/2022 12:25:17 PM	92	55.6	74.3	66.5
12:26:17 PM	96.5	53.3	72.9	67.4
12:27:17 PM	95.3	59.5	76.8	69
12:28:17 PM	98.4	61.5	73.7	67.7
12:29:17 PM	88.8	56.1	70.9	66
12:30:17 PM	85.2	50.5	71.4	66.6
12:31:17 PM	88.6	59.6	70.7	67
12:32:17 PM	88.8	53.8	70.3	66
12:33:17 PM	89.1	60.6	73.3	67.6
12:34:17 PM	93.2	54.6	79	69.2
12:35:17 PM	93.7	58.2	73.8	67.4
12:36:17 PM	99.5	55.3	78.2	69.4
12:37:17 PM	87.5	53.6	70.4	64.5
12:38:17 PM	91.7	57.1	75.2	68.1
12:39:17 PM	87.9	59.5	72.8	67.6

Date/Time	Lapk-1	Lasmn-1	Lasmx-1	Leq-1
10/4/2022 12:09:36 PM	93.1	50.5	77	70.6
12:10:36 PM	97.9	59.2	78.9	72.4
12:11:36 PM	90.9	54.4	75.6	70.6
12:12:36 PM	91.2	54.8	75.8	70.9
12:13:36 PM	92.1	55	77.1	70.6
12:14:36 PM	92.7	61.4	78.8	72.3
12:15:36 PM	93.4	58.1	77.4	72.9
12:16:36 PM	96.3	57.3	83	74.1
12:17:36 PM	91.6	49.9	76.1	68.9
12:18:36 PM	98.2	50.2	74.8	67.6
12:19:36 PM	95.7	59.9	79	70.3
12:20:36 PM	89.7	59.8	74.7	70
12:21:36 PM	93.9	62.9	79.1	71.9
12:22:36 PM	90.7	55.7	73.7	65.1
12:23:36 PM	85.9	53.3	71.5	65.1

Date/Time	Lapk-1	Lasmn-1	Lasmx-1	Leq-1
10/4/2022 11:25:19 AM	86.8	44.2	58.3	51
11:26:19 AM	114.4	46.8	81	63.9
11:27:19 AM	85.7	43.8	60.4	52.3
11:28:19 AM	88.9	42.2	67.9	55.8
11:29:19 AM	86.4	44.8	63.7	55.1
11:30:19 AM	85	43.8	69.9	58.5
11:31:19 AM	79.3	46.5	66.1	56.8
11:32:19 AM	76.5	43.4	56.4	51.7
11:33:19 AM	88.8	44.2	63	54.1
11:34:19 AM	75.7	40.5	63	54.5
11:35:19 AM	76.4	46	60.7	54.6
11:36:19 AM	70.6	43.5	55.6	50.7
11:37:19 AM	81.9	40.4	63.7	51.2
11:38:19 AM	79.2	42.6	60.1	52.1
11:39:19 AM	82.1	40.8	56.4	49.8

Noise emissions of industry sources

Source name	Size m/m²	Reference	Level Day dB(A)	Level Evening dB(A)	Level Night dB(A)	Corrections Cwall dB	Corrections CI dB	Corrections CT dB
Construction Site	916 m²	Lw/unit	109.7	-	-	-	-	-

Contribution levels of the receivers

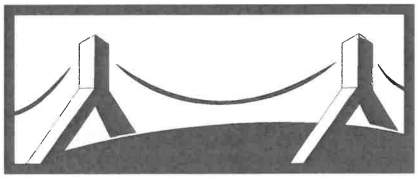
Source name		Traffic lane	Level Day dB(A)
Lyric Preschool	GF		63.8
Construction Site		-	63.8
Residences - 2340 Griffith Park Bl.	GF		48.7
Construction Site		-	48.7
Residences - 2344 Griffith Park Bl.	GF		49.8
Construction Site		-	49.8
Residences - Griffith Park Bl (east side)	GF		49.8
Construction Site		-	49.8
Residences - Hyperion Ave. (east side)	GF		64.2
Construction Site		-	64.2
Residences - Hyperion Ave. (west side)	GF		67.3
Construction Site		-	67.3

Construction Noise Impacts

DouglasKim+Ass

Reference	15.24	meter
Sound Pressure Level (Lp)	75.0	dBA
Sound Power Level (Lw)	109.7	dB

Receptor	Existing Leq	Noise	New Leq	Difference Leq	Significant?
Residences - Hyperion Ave. (west side)	67.5	67.3	70.4	2.9	**No**
Residences - Hyperion Ave. (east side)	67.5	64.2	69.2	1.7	**No**
Residences - 2340 Griffith Park Bl.	56.2	48.7	56.9	0.7	**No**
Lyric Preschool	70.7	63.8	71.5	0.8	**No**
Residences - 2344 Griffith Park Bl.	56.2	49.8	57.1	0.9	**No**



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TRAFFIC NOISE CALCULATIONS

TRAFFIC VOLUME ADJUSTMENTS

North/South	Hyperion Avenue
East/West	Scotland Street
Year	2015
Hour	7:30-8:30 A.M.
Source	https://navigatela.lacity.org/dot/traffic_data/manual_counts/HYPERION.SCOTLAND.120202-MAN.pdf

	NB Approach	SB Approach	EB Approach	WB Approach		
LT						
TH						
RT						
Total	1419	1898				1.07%

2015	1,419	1,898	-	-	3,317	
2016	1,433	1,917	-	-	3,350	
2017	1,448	1,936	-	-	3,384	
2018	1,462	1,956	-	-	3,418	
2019	1,477	1,975	-	-	3,452	
2020	1,491	1,995	-	-	3,486	
2021	1,506	2,015	-	-	3,521	-
2022	**1,521**	**2,035**	**-**	**-**	**3,556**	

	NB Approach	SB Approach	EB Approach	WB Approach		
Auto	1,230	1,645	-	-	6,048,810	82.5%
MDT	191	256	-	-	940,092	12.8%
HDT	5	7	-	-	25,348	0.3%
Buses	2	3	-	-	9,386	0.1%
MCY	34	46	-	-	167,287	2.3%
Aux	29	39	-	-	142,856	1.9%
Total	1,491	1,995	-	-	7,333,779	100.0%

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CONSTRUCTION BUILDING DEBRIS

Materials	Total SF	Height	Cubic Yards	Pounds per Cub	Tons	Truck Capacity (CY)	Truck Trips	Source
Construction and Debris	0	0	-	484	-	10	-	Florida Department of Environmental Protection A Fact Sheet for C&D Debris Facility Operators
General Building	3,552	12	521	1,000	260	10	104	*Federal Emergency Management Agency, Debris Estimating Field Guide (FEMA 329), September 2010. General Building Formula*
Single Family Residence	-	12	-	1,000	-	10	-	Federal Emergency Management Agency. Debris Estimating Field Guide (FEMA 329), September 2010. Single Family Residence Formula, assumes 1 story, Medium vegetative cover multiplier (1.3)
Multi-Family Residence		12	-	1,000	-	10	-	
Mobile Home				1,000	-	10	-	
Mixed Debris			-	480	-	10	-	Florida Department of Environmental Protection A Fact Sheet for C&D Debris Facility Operators
Vegetative Debris (Hardwoods)			-	500	-	10	-	
Vegetative Debris (Softwoods)			-	333	-	10	-	
Asphalt or concrete (Constructior	6,650	0.5	123	2,400	148	10	25	
TOTAL			644		408		129	

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SOIL TRANSPORT WITH SHRINK AND SWELL FACTORS

	CY	% Swell	Adjusted CY	Truck Capacity (CY)	Truck Trips
Topsoil	104	56%	162	10	32
Clay (Dry)	1,390	50%	2,085	10	417
Clay (Damp)		67%	-	10	-
Earth, loam (Dry)		50%	-	10	-
Earth, loam (Damp)		43%	-	10	-
Dry sand		11%	-	10	-
TOTAL	1,494		2,247		449

Note: Topsoil considered the top ten inches of soil (Wikipedia)
Note: Soil below topsoil assumed to be dry clay; Source: Lyngso website, https://www.lyngsogarden.com/community-resources/tips-on-modifying-your-california-soil-with-amendments/
Source: US Department of Transportation Determination of Excavation and Embankment Volumes; https://highways.dot.gov/federal-lands/pddm/dpg/earthwork-design

ATTACHMENT C – VEHICLE MILES TRAVELLED (VMT) ANALYSIS

REFERRAL FORMS:

TRANSPORTATION STUDY ASSESSMENT

DEPARTMENT OF TRANSPORTATION - REFERRAL FORM

RELATED CODE SECTION: Los Angeles Municipal Code Section 16.05 and various code sections.

PURPOSE: The Department of Transportation (LADOT) Referral Form serves as an initial assessment to determine whether a project requires a Transportation Assessment.

GENERAL INFORMATION

- Administrative: Prior to the submittal of a referral form with LADOT, a Planning case must have been filed with Los Angeles City Planning.
- All new school projects, including by-right projects, must contact LADOT for an assessment of the school's proposed drop-off/pick-up scheme and to determine if any traffic controls, school warning and speed limit signs, school crosswalk and pavement markings, passenger loading zones and school bus loading zones are needed.
- Unless exempted, projects located within a transportation specific plan area may be required to pay a traffic impact assessment fee regardless of the need to prepare a transportation assessment.
- Pursuant to LAMC Section 19.15, a review fee payable to LADOT may be required to process this form. The applicant should contact the appropriate LADOT Development Services Office to arrange payment.
- LADOT's Transportation Assessment Guidelines, VMT Calculator, and VMT Calculator User Guide can be found at **http://ladot.lacity.org**.
- A transportation study is not needed for the following project applications:
    - Ministerial / by-right projects
    - Discretionary projects limited to a request for change in hours of operation
    - Tenant improvement within an existing shopping center for change of tenants
    - Any project only installing a parking lot or parking structure
    - Time extension
    - Single family home (unless part of a subdivision)
- This Referral Form is not intended to address the project's site access plan, driveway dimensions and location, internal circulation elements, dedication and widening, and other issues. These items require separate review and approval by LADOT.

SPECIAL REQUIREMENTS

When submitting this referral form to LADOT, include the completed documents listed below.

☑ Copy of Department of City Planning Application (CP-7771.1).

☑ Copy of a fully dimensioned site plan showing all existing and proposed structures, parking and loading areas, driveways, as well as on-site and off-site circulation.

☐ If filing for purposes of Site Plan Review, a copy of the Site Plan Review Supplemental Application.

☑ Copy of project-specific VMT Calculator analysis results.

TO BE VERIFIED BY PLANNING STAFF PRIOR TO LADOT REVIEW

LADOT DEVELOPMENT SERVICES DIVISION OFFICES: Please route this form for processing to the appropriate LADOT Development Review Office as follows (see this map for geographical reference):

Metro	**West LA**	**Valley**
213-972-8482	*213-485-1062*	*818-374-4699*
100 S. Main St, 9th Floor Los Angeles, CA 90012	7166 W. Manchester Blvd Los Angeles, CA 90045	6262 Van Nuys Blvd, 3rd Floor Van Nuys, CA 91401

1. PROJECT INFORMATION

Case Number: _____

Address: 2336-2346 N. Hyperion Avenue

Project Description: Demolish (e) building and construction of new mixed-use project (15 DUs & 400 SF retail)

Seeking Existing Use Credit (will be calculated by LADOT): Yes _____ No _____ Not sure ✔

Applicant Name: Sara Houghton

Applicant E-mail: sara@three6ixty.net Applicant Phone: (310) 310-4032

Planning Staff Initials: _____ **Date:** _____

2. PROJECT REFERRAL TABLE

	Land Use (list all)	**Size / Unit**	**Daily Trips**[1]
Proposed[1]	0.4 ksf non residential (commercial)		
	2 affordable residential units		
	13 residential units		
	Total trips[1]*:*		92

a. Does the proposed project involve a discretionary action? **Yes** ☑ **No** ☐

b. Would the proposed project generate 250 or more daily vehicle trips[2]? **Yes** ☐ **No** ☑

c. If the project is replacing an existing number of residential units with a smaller number of residential units, is the proposed project located within one-half mile of a heavy rail, light rail, or bus rapid transit station[3]? **Yes** ☐ **No** ☑

If **YES** to **a.** and **b.** or **c.**, or to **all** of the above, the Project must be referred to LADOT for further assessment.

Verified by: Planning Staff Name: Marie Pichay Phone: (213) 978-1470

Signature: Marie Pichay Date: 03/06/23

[1] Qualifying Existing Use to be determined by LADOT staff on following page, per LADOT's Transportation Assessment Guidelines.

[2] To calculate the project's total daily trips, use the VMT Calculator. Under 'Project Information', enter the project address, land use type, and intensity of all proposed land uses. Select the '**+**' icon to enter each land use. After you enter the information, copy the 'Daily Vehicle Trips' number into the total trips in this table. Do not consider any existing use information for screening purposes. For additional questions, consult LADOT's VMT Calculator User Guide and the LADOT Transportation Assessment Guidelines (available on the LADOT website).

[3] Relevant transit lines include: Metro Red, Purple, Blue, Green, Gold, Expo, Orange, and Silver line stations; and Metrolink stations.

TO BE COMPLETED BY LADOT

3. PROJECT INFORMATION

	Land Use (list all)	**Size / Unit**	**Daily Trips**
Proposed			
	Total new trips:		
Existing			
	Total existing trips:		
	Net Increase / Decrease (+ or -)		

a. Is the project a single retail use that is less than 50,000 square feet? **Yes** ☐ **No** ☐
b. Would the project generate a net increase of 250 or more daily vehicle trips? **Yes** ☐ **No** ☐
c. Would the project generate a net increase of 500 or more daily vehicle trips? **Yes** ☐ **No** ☐
d. Would the project result in a net increase in daily VMT? **Yes** ☐ **No** ☐
e. If the project is replacing an existing number of residential units with a smaller number of residential units, is the proposed project located within one-half mile of a heavy rail, light rail, or bus rapid transit station? **Yes** ☐ **No** ☐

f. Does the project trigger Site Plan Review (LAMC 16.05)? **Yes** ☐ **No** ☐

g. Project size:
- **i.** Would the project generate a net increase of 1,000 or more daily vehicle trips? **Yes** ☐ **No** ☐
- **ii.** Is the project's frontage 250 linear feet or more along a street classified as an Avenue or Boulevard per the City's General Plan? **Yes** ☐ **No** ☐
- **iii.** Is the project's building frontage encompassing an entire block along a street classified as an Avenue or Boulevard per the City's General Plan? **Yes** ☐ **No** ☐

VMT Analysis (CEQA Review)
If **YES** to **a.** and **NO** to **e.** a VMT analysis is **NOT** required.
If **YES** to both **b.** and **d.**; or to **e.** a VMT analysis **is** required.

Access, Safety, and Circulation Assessment (Corrective Conditions)
If **YES** to **c.**, a project access, safety, and circulation evaluation may be required.
If **YES** to **f.** and either **g.i**., **g.ii**., or **g.iii**., an access assessment may be required.

LADOT Comments:

Please note that this form is not intended to address the project's site access plan, driveway dimensions and location, internal circulation elements, dedication and widening, and other issues. These items require separate review and approval by LADOT. Qualifying Existing Use to be determined per LADOT's Transportation Assessment Guidelines.

4. Specific Plan with Trip Fee or TDM Requirements: **Yes** ☐ **No** ☐

Fee Calculation Estimate: _____

VMT Analysis Required (Question b. satisfied): **Yes** ☐ **No** ☐

Access, Safety, and Circulation Evaluation Required (Question c. satisfied): **Yes** ☐ **No** ☐

Access Assessment Required (Question c., f., and either g.i., g.ii. or g.iii satisfied): **Yes** ☐ **No** ☐

Prepared by DOT Staff Name: _____ Phone: _____

Signature: _____ Date: _____

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: 2346 hyperion

Scenario: Multi-family

Address: 2346 N HYPERION AVE, 90027

www

Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit station?

○ Yes ◉ No

Existing Land Use

Land Use Type	Value	Unit
Office | Medical Office	1200	ksf
Office | General Office	3.5	ksf

☐ Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type	Value	Unit
Housing | Multi-Family	15	DU
Housing | Multi-Family	13	DU
Housing | Affordable Housing - Family	2	DU
Retail | General Retail	0.4	ksf

☐ Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed Project
36 Daily Vehicle Trips	92 Daily Vehicle Trips
282 Daily VMT	652 Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	56 Net Daily Trips
The net increase in daily VMT ≤ 0	370 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	0.400 ksf

The proposed project is not required to perform VMT analysis.

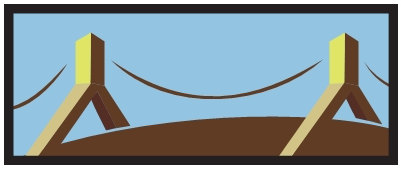
Measuring the Miles

1/22/2023

ATTACHMENT D – AIR QUALITY TECHNICAL REPORT

2346 HYPERION AVENUE PROJECT

Air Quality Technical Report



Prepared by DKA Planning
20445 Prospect Road, Suite C
San Jose, CA 95129
November 2022

AIR QUALITY TECHNICAL REPORT

Introduction

This technical report addresses the air quality impacts generated by construction and operation of the Proposed Project at 2346 Hyperion Avenue in the City of Los Angeles. The analysis evaluates the consistency of the Project with the air quality policies set forth within the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP) and the City's General Plan. The analysis of Project-generated air emissions focuses on whether the Project would cause an exceedance of an ambient air quality standard or SCAQMD significance threshold. Calculation worksheets, assumptions, and model outputs used in the analysis are included in the Technical Appendix to this analysis.

Regulatory Framework

Federal

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years, with the most recent amendments in 1990. At the federal level, the United States Environmental Protection Agency (USEPA) is responsible for implementation of some portions of the CAA (e.g., certain mobile source and other requirements). Other portions of the CAA (e.g., stationary source requirements) are implemented by state and local agencies. In California, the CCAA is administered by the California Air Resources Board (CARB) at the state level and by the air quality management districts and air pollution control districts at the regional and local levels.

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the National Ambient Air Quality Standard (NAAQS). These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA which are most applicable to the Project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).

NAAQS have been established for seven major air pollutants: CO (carbon monoxide), NO_2 (nitrogen dioxide), O_3 (ozone), $PM_{2.5}$ (particulate matter, 2.5 microns), PM_{10} (particulate matter, 10 microns), SO_2 (sulfur dioxide), and Pb (lead).

The Clean Air Act (CAA) requires the USEPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the National Ambient Air Quality Standards (NAAQS) have been achieved. Title I provisions are implemented for the purpose of attaining NAAQS. The federal standards are summarized in Table 1. The USEPA has classified the Los Angeles County portion of the South Coast Air Basin (Basin) as a nonattainment area for O_3, $PM_{2.5}$, and Pb.

Table 1
State and National Ambient Air Quality Standards and Attainment Status for LA County

Pollutant	Averaging Period	California		Federal	
		Standards	Attainment Status	Standards	Attainment Status
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m^3)	Non-attainment	--	--
	8-hour	0.070 ppm (137 µg/m^3)	N/A[1]	0.070 ppm (137 µg/m^3)	Non-attainment
Respirable Particulate Matter (PM_{10})	24-hour	50 µg/m^3	Non-attainment	150 µg/m^3	Maintenance
	Annual Arithmetic Mean	20 µg/m^3	Non-attainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-hour	--	--	35 µg/m^3	Non-attainment
	Annual Arithmetic Mean	12 µg/m^3	Non-attainment	12 µg/m^3	Non-attainment
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Maintenance
	8-hour	9.0 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Maintenance
Nitrogen Dioxide (NO_2)	1-hour	0.18 ppm (338 µg/m^3)	Attainment	100 ppb (188 µg/m^3)	Maintenance
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Attainment	53 ppb (100 µg/m^3)	Maintenance
Sulfur Dioxide (SO_2)	1-hour	0.25 ppm (655 µg/m^3)	Attainment	75 ppb (196 µg/m^3)	Attainment
	24-hour	0.04 ppm (105 µg/m^3)	Attainment	--	--
Lead (Pb)	30-day average	1.5 µg/m^3	Attainment	--	--
	Calendar Quarter	--	--	0.15 µg/m^3	Non-attainment
Visibility Reducing Particles	8-hour	Extinction of 0.07 per kilometer	N/A	No Federal Standards	
Sulfates	24-hour	25 µg/m^3	Attainment	No Federal Standards	
Hydrogen Sulfide (H_2S)	1-hour	0.03 ppm (42 µg/m^3)	Unclassified	No Federal Standards	
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m^3)	N/A	No Federal Standards	

[1]N/A = not available
Source: CARB, Ambient Air Quality Standards, and attainment status, 2020 (www.arb.ca.gov/desig/adm/adm.htm).

CAA Title II pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline and automobile pollution control devices are examples of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have been strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have been lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. USEPA has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet stricter emission standards established by CARB. USEPA adopted multiple tiers of emission standards to reduce emissions from non-road diesel engines (e.g., diesel-powered construction equipment) by integrating engine and fuel controls as a system to gain the greatest emission reductions. The first federal standards (Tier 1) for new non-road (or off-road) diesel engines were adopted in 1994 for engines over 50 horsepower, to be phased-in from 1996 to 2000. On August 27, 1998, USEPA introduced Tier 1 standards for equipment under 37 kW (50 horsepower) and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. The Tier 1 through 3 standards were met through advanced engine design, with no or only limited use of exhaust gas after-treatment (oxidation catalysts). Tier 3 standards for NO_X and hydrocarbon are similar in stringency to the 2004 standards for highway engines. However, Tier 3 standards for particulate matter were never adopted. On May 11, 2004, USEPA signed the final rule introducing Tier 4 emission standards, which were phased-in between 2008 and 2015. The Tier 4 standards require that emissions of particulate matter and NO_X be further reduced by about 90 percent. Such emission reductions are achieved through the use of control technologies—including advanced exhaust gas after-treatment.

State

California Clean Air Act. In addition to being subject to the requirements of CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). In California, CCAA is administered by CARB at the state level and by the air quality management districts and air pollution control districts at the regional and local levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for meeting the state requirements of the CAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

CARB regulates mobile air pollution sources, such as motor vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The State standards are summarized in Table 1.

The CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS thresholds have been achieved. Under the CCAA,

areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard and are not used as a basis for designating areas as nonattainment. Under the CCAA, the non-desert Los Angeles County portion of the Basin is designated as a nonattainment area for O_3, PM_{10}, and $PM_{2.5}$.

In August 2022, CARB approved regulations to ban new gasoline-powered cars beginning with 2035 models. Automakers will gradually electrify their fleet of new vehicles, beginning with 35 percent of 2026 models sold. In September 2022, CARB proposes regulations that mandate that all new medium- and heavy-duty trucks would be zero emissions in 2040. Trucking companies would also have to gradually convert their existing fleets to zero emission vehicles, buying more over time until all are zero emissions by 2042.

Toxic Air Contaminant Identification and Control Act. The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. CARB's statewide comprehensive air toxics program was established in the early 1980s. The Toxic Air Contaminant Identification and Control Act created California's program to reduce exposure to air toxics. Under the Toxic Air Contaminant Identification and Control Act, CARB is required to use certain criteria in the prioritization for the identification and control of air toxics. In selecting substances for review, CARB must consider criteria relating to "the risk of harm to public health, amount or potential amount of emissions, manner of, and exposure to, usage of the substance in California, persistence in the atmosphere, and ambient concentrations in the community" [Health and Safety Code Section 39666(f)].

The Toxic Air Contaminant Identification and Control Act also requires CARB to use available information gathered from the Air Toxics "Hot Spots" Information and Assessment Act program to include in the prioritization of compounds. CARB identified particulate emissions from diesel-fueled engines (diesel PM) TACs in August 1998. Following the identification process, CARB was required by law to determine if there is a need for further control, which led to the risk management phase of the program. For the risk management phase, CARB formed the Diesel Advisory Committee to assist in the development of a risk management guidance document and a risk reduction plan. With the assistance of the Diesel Advisory Committee and its subcommittees, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles and the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines. The Board approved these documents on September 28, 2000, paving the way for the next step in the regulatory process: the control measure phase. During the control measure phase, specific Statewide regulations designed to further reduce diesel PM emissions from diesel-fueled engines and vehicles have and continue to be evaluated and developed. The goal of each regulation is to make diesel engines as clean as possible by establishing state-of-the-art technology requirements or emission standards to reduce diesel PM emissions. Breathing H_2S at levels above the state standard could result in exposure to a disagreeable rotten eggs odor. The State does not regulate other odors.

California Air Toxics Program. The California Air Toxics Program was established in 1983, when the California Legislature adopted Assembly Bill (AB) 1807 to establish a two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air.[1] In the risk identification step, CARB and the Office of Environmental Health Hazard

[1] California Air Resources Board, California Air Toxics Program, www.arb.ca.gov/toxics/toxics.htm, last reviewed by CARB September 24, 2015.

Assessment (OEHHA) determine if a substance should be formally identified, or "listed," as a TAC in California. Since inception of the program, a number of such substances have been listed, including benzene, chloroform, formaldehyde, and particulate emissions from diesel-fueled engines, among others.[2] In 1993, the California Legislature amended the program to identify the 189 federal hazardous air pollutants as TACs.

In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on results of that review, CARB has promulgated a number of airborne toxic control measures (ATCMs), both for mobile and stationary sources. In 2004, CARB adopted an ATCM to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given time.

In addition to limiting exhaust from idling trucks, CARB adopted regulations on July 26, 2007 for off-road diesel construction equipment such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles to reduce emissions by installation of diesel particulate filters and encouraging the replacement of older, dirtier engines with newer emission-controlled models. In April 2021, CARB proposed a 2020 Mobile Source Strategy that seeks to move California to 100 percent zero-emission off-road equipment by 2035.

Assembly Bill 2588 Air Toxics "Hot Spots" Program. The AB 1807 program is supplemented by the AB 2588 Air Toxics "Hot Spots" program, which was established by the California Legislature in 1987. Under this program, facilities are required to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks if present. In 1992, the AB 2588 program was amended by Senate Bill (SB) 1731 to require facilities that pose a significant health risk to the community to reduce their risk through implementation of a risk management plan.

Air Quality and Land Use Handbook: A Community Health Perspective. The *Air Quality and Land Use Handbook: A Community Health Perspective* provides important air quality information about certain types of facilities (e.g., freeways, refineries, rail yards, ports) that should be considered when siting sensitive land uses such as residences.[3] CARB provides recommended site distances from certain types of facilities when considering siting new sensitive land uses. The recommendations are advisory and should not be interpreted as defined "buffer zones." If a project is within the siting distance, CARB recommends further analysis. Where possible, CARB recommends a minimum separation between new sensitive land uses and existing sources.

Air Quality and Land Use Handbook. CARB published the *Air Quality and Land Use Handbook* (CARB Handbook) on April 28, 2005 to serve as a general guide for considering health effects associated with siting sensitive receptors proximate to sources of TAC emissions. The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or

2 California Air Resources Board, Toxic Air Contaminant Identification List, www.arb.ca.gov/toxics/id/taclist.htm, last reviewed by CARB July 18, 2011.

3 California Air Resources Board, Air Quality and Land Use Handbook, a Community Health Perspective, April 2005.

local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day; (2) avoid siting sensitive receptors within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week); and (3) avoid siting sensitive receptors within 300 feet of any dry cleaning operation using perchloroethylene and within 500 feet of operations with two or more machines.

California Code of Regulations. The California Code of Regulations (CCR) is the official compilation and publication of regulations adopted, amended or repealed by the state agencies pursuant to the Administrative Procedure Act. The CCR includes regulations that pertain to air quality emissions. Specifically, Section 2485 in CCR Title 13 states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) used during construction shall be limited to five minutes at any location. In addition, Section 93115 in CCR Title 17 states that operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

Regional (South Coast Air Quality Management District)

The SCAQMD was created in 1977 to coordinate air quality planning efforts throughout Southern California. SCAQMD is the agency principally responsible for comprehensive air pollution control in the region. Specifically, SCAQMD is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain the CAAQS and NAAQS in the district. SCAQMD has jurisdiction over an area of 10,743 square miles consisting of Orange County; the non-desert portions of Los Angeles, Riverside, and San Bernardino counties; and the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin. The Basin portion of SCAQMD's jurisdiction covers an area of 6,745 square miles. The Basin includes all of Orange County and the non-desert portions of Los Angeles (including the Project Area), Riverside, and San Bernardino counties. The Basin is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto Mountains to the north and east; and the San Diego County line to the south.

Programs that were developed by SCAQMD to attain and maintain the CAAQS and NAAQS include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases. All projects in the SCAQMD jurisdiction are subject to SCAQMD rules and regulations, including, but not limited to the following:

- Rule 401 Visible Emissions – This rule prohibits an air discharge that results in a plume that is as dark or darker than what is designated as No. 1 Ringelmann Chart by the United States Bureau of Mines for an aggregate of three minutes in any one hour.

- Rule 402 Nuisance – This rule prohibits the discharge of "such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of people or the public, or which endanger the comfort, repose, health or safety of any such persons or

the public, or which cause, or have a natural tendency to cause, injury or damage to business or property."

- Rule 403 Fugitive Dust – This rule requires that future 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.

Air Quality Management Plan. The 2016 Air Quality Management Plan (AQMP) was adopted in April 2017 and represents the most updated regional blueprint for achieving federal air quality standards. The 2016 AQMP adapts previously conducted regional air quality analyses to account for the recent unexpected drought conditions and presents a revised approach to demonstrated attainment of the 2006 24-hour $PM_{2.5}$ NAAQS for the Basin. Additionally, the 2016 AQMP relied upon a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures to evaluate strategies for reducing NO_X emissions sufficiently to meet the upcoming ozone deadline standards.

The SCAQMD is updating the region's air quality attainment plan to address the "extreme" ozone non-attainment status for the Basin and the severe ozone non-attainment for the Coachella valley. This includes strengthening many stationary source controls and addressing new sources like wildfires. The 2022 AQMP will rely on the growth assumptions in SCAG's 2020-2045 RTP/SCS.

Multiple Air Toxics Exposure Study V. To date, the most comprehensive study on air toxics in the Basin is the Multiple Air Toxics Exposure Study V, released in August 2021.[4] The report included refinements in aircraft and recreational boating emissions and diesel conversion factors. It finds a Basin average cancer risk of 455 in a million (population-weighted, multi-pathway), which represents a decrease of 54 percent compared to the estimate in MATES IV (page ES-13). The monitoring program measured more than 30 air pollutants, including both gases and particulates. The monitoring study was accompanied by computer modeling that estimated the risk of cancer from breathing toxic air pollution based on emissions and weather data. About 88 percent of the risk is attributed to emissions associated with mobile sources, with the remainder attributed to toxics emitted from stationary sources, which include large industrial operations, such as refineries and metal processing facilities, as well as smaller businesses such as gas stations and chrome plating facilities (page ES-12). The results indicate that diesel PM is the largest contributor to air toxics risk, accounting on average for about 50 percent of the total risk (Figure ES-2).

Regional (Southern California Association of Governments)

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG coordinates with various air quality and transportation stakeholders in Southern California to ensure compliance with the federal and state air quality requirements, including the Transportation Conformity Rule and other applicable federal, state, and air district laws and regulations. As the federally designated Metropolitan Planning Organization

[4] South Coast Air Quality Management District, MATES-V Study. https://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v

(MPO) for the six-county Southern California region, SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and state air quality plans to attain the NAAQS. In addition, SCAG is a co-producer, with the SCAQMD, of the transportation strategy and transportation control measure sections of the AQMP for the Air Basin.

SCAG adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) on April 7, 2016.[5,6] The 2016–2040 RTP/SCS is the transportation and land use component of the region's air quality plan. It recognized that transportation investments and future land use patterns are inextricably linked, and continued recognition of this close relationship will help the region make choices that sustain existing resources and expand efficiency, mobility, and accessibility for people across the region. In particular, it drew a closer connection between where people live and work, and it offers a blueprint for how Southern California can grow more sustainably. While it has since been updated as described in the next paragraph, it remains the transportation plan that is in the applicable air quality plan for the region (i.e., 2016 Air Quality Management Plan).

SCAG adopted the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) on September 23, 2020.[7] The RTP/SCS aims to address the transportation and air quality impacts of 3.7 million additional residents, 1.6 additional households, and 1.6 million additional jobs from 2016 to 2045. The Plan calls for $639 billion in transportation investments and reducing VMT by 19 percent per capita from 2005 to 2035. The updated plan accommodates 21.3 percent growth in population from 2016 (3,933,800) to 2045 (4,771,300) and a 15.6 percent growth in jobs from 2016 (1,848,300) to 2045 (2,135,900). The regional plan projects several benefits:

- Decreasing drive-along work commutes by three percent
- Reducing per capita VMT by five percent and vehicle hours traveled per capita by nine percent
- Increasing transit commuting by two percent
- Reducing travel delay per capita by 26 percent
- Creating 264,500 new jobs annually
- Reducing greenfield development by 29 percent by focusing on smart growth
- Locating six more percent household growth in High Quality Transit Areas (HQTAs), which concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life cycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability.
- Locating 15 percent more jobs in HQTAs
- Reducing $PM_{2.5}$ emissions by 4.1 percent
- Reducing GHG emissions by 19 percent by 2035

Local (City of Los Angeles)

City of Los Angeles General Plan Air Quality Element. The Air Quality Element of the City's General Plan was adopted on November 24, 1992, and sets forth the goals, objectives, and policies, which guide the City in the implementation of its air quality improvement programs and strategies. The Air Quality

5 Southern California Association of Governments, Final 2016–2040 RTP/SCS.

6 California Air Resources Board, Executive Order G-16-066, SCAG 2016 SCS ARB Acceptance of GHG Quantification Determination, June 2016.

7 California Air Resources Board, Executive Order G-16-066, SCAG 2016 SCS ARB Acceptance of GHG Quantification Determination, June 2016.

Element acknowledges the interrelationships among transportation and land use planning in meeting the City's mobility and air quality goals.

The Air Quality Element includes six key goals:

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

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

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

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

Goal 5: Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels and the implementation of conservation measures including passive measures such as site orientation and tree planting.

Goal 6: Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

Clean Up Green Up Ordinance. The City of Los Angeles adopted a Clean Up Green Up Ordinance (Ordinance Number 184,245) on April 13, 2016, which among other provisions, includes provisions related to ventilation system filter efficiency in mechanically ventilated buildings. This ordinance added Sections 95.314.3 and 99.04.504.6 to the Los Angeles Municipal Code (LAMC) and amended Section 99.05.504.5.3 to implement building standards and requirements to address cumulative health impacts resulting from incompatible land use patterns.

California Environmental Quality Act. In accordance with CEQA requirements, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation. The City uses the SCAQMD's *CEQA Air Quality Handbook* and SCAQMD's supplemental online guidance/information for the environmental review of development proposals within its jurisdiction.

Land Use Compatibility. In November 2012, the Los Angeles City Planning Commission (CPC) issued an advisory notice (Zoning Information 2427) regarding the siting of sensitive land uses within 1,000 feet of freeways. The CPC deemed 1,000 feet to be a conservative distance to evaluate projects that house populations considered to be more at-risk from the negative effects of air pollution caused by freeway proximity. The CPC advised that applicants of projects requiring discretionary approval, located within 1,000 feet of a freeway and contemplating residential units and other sensitive uses (e.g., hospitals, schools, retirement homes) perform a Health Risk Assessment (HRA). The Project Site is 4,000 feet southwest of the southbound mainline of the Golden State Freeway (I-5).

On April 12, 2018, the City updated its guidance on siting land uses near freeways, resulting in an updated Advisory Notice effective September 17, 2018 requiring all proposed projects within 1,000 feet of a freeway adhere to the Citywide Design Guidelines, including those that address freeway proximity.

It also recommended that projects consider avoiding location of sensitive uses like schools, day care facilities, and senior care centers in such projects, locate open space areas as far from the freeway, locate non-habitable uses (e.g., parking structures) nearest the freeway, and screen project sites with substantial vegetation and/or a wall barrier. Requirements for preparing HRAs were removed.

Existing Conditions

Pollutants and Effects

Air quality is defined by ambient air concentrations of seven specific pollutants identified by the USEPA to be of concern with respect to health and welfare of the general public. These specific pollutants, known as "criteria air pollutants," are defined as pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants include carbon monoxide (CO), ground-level ozone (O_3), nitrogen oxides (NO_X), sulfur oxides (SO_X), particulate matter ten microns or less in diameter (PM_{10}), particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), and lead (Pb). The following descriptions of each criteria air pollutant and their health effects are based on information provided by the SCAQMD.[8]

Carbon Monoxide (CO). CO is primarily emitted from combustion processes and motor vehicles due to incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of CO can cause nausea, dizziness, and headaches at moderate concentrations and can be fatal at high concentrations.

Ozone (O_3). O_3 is a gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X)—both byproducts of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of O_3 irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower lung efficiency.

Nitrogen Dioxide (NO_2). NO_2 is a byproduct of fuel combustion and major sources include power plants, large industrial facilities, and motor vehicles. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), which reacts quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 absorbs blue light and results in a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10}. Nitrogen oxides irritate the nose and throat, and increase one's susceptibility to respiratory infections, especially in people with asthma. The principal concern of NO_X is as a precursor to the formation of ozone.

Sulfur Dioxide (SO_2). Sulfur oxides (SO_X) are compounds of sulfur and oxygen molecules. SO_2 is the pre- dominant form found in the lower atmosphere and is a product of burning sulfur or burning materials that contain sulfur. Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles,

[8] South Coast Air Quality Management District, Final Program Environmental Impact Report for the 2012 AQMP, December 7, 2012.

and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. SO_2 potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

Particulate Matter (PM_{10} and $PM_{2.5}$). The human body naturally prevents the entry of larger particles into the body. However, small particles, with an aerodynamic diameter equal to or less than 10 microns (PM_{10}), and even smaller particles with an aerodynamic diameter equal to or less than 2.5 microns ($PM_{2.5}$), can enter the body and become trapped in the nose, throat, and upper respiratory tract. These small particulates can potentially aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM_{10} and $PM_{2.5}$. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates can become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

Lead (Pb). Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing the metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

State-Only Criteria Pollutants

Visibility-Reducing Particles. Deterioration of visibility is one of the most obvious manifestations of air pollution and plays a major role in the public's perception of air quality. Visibility reduction from air pollution is often due to the presence of sulfur and NO_X, as well as PM.

Sulfates (SO_4^{2-}). Sulfates are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized during the combustion process and subsequently converted to sulfate compounds in the atmosphere. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, due to fact that they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide (H_2S). H_2S is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation. Breathing H_2S at levels above the state standard could result in exposure to a very disagreeable odor.

Vinyl Chloride. Vinyl chloride is a colorless, flammable gas at ambient temperature and pressure. It is also highly toxic and is classified as a known carcinogen by the American Conference of Governmental Industrial Hygienists and the International Agency for Research on Cancer. At room temperature, vinyl chloride is a gas with a sickly-sweet odor that is easily condensed. However, it is stored at cooler

temperatures as a liquid. Due to the hazardous nature of vinyl chloride to human health, there are no end products that use vinyl chloride in its monomer form. Vinyl chloride is a chemical intermediate, not a final product. It is an important industrial chemical chiefly used to produce polyvinyl chloride (PVC). The process involves vinyl chloride liquid fed to polymerization reactors where it is converted from a monomer to a polymer PVC. The final product of the polymerization process is PVC in either a flake or pellet form. Billions of pounds of PVC are sold on the global market each year. From its flake or pellet form, PVC is sold to companies that heat and mold the PVC into end products such as PVC pipe and bottles. Vinyl chloride emissions are historically associated primarily with landfills.

Toxic Air Contaminants (TACs)

TACs refer to a diverse group of "non-criteria" air pollutants that can affect human health but have not had ambient air quality standards established for them. This is not because they are fundamentally different from the pollutants discussed above but because their effects tend to be local rather than regional. TACs are classified as carcinogenic and noncarcinogenic, where carcinogenic TACs can cause cancer and noncarcinogenic TAC can cause acute and chronic impacts to different target organ systems (e.g., eyes, respiratory, reproductive, developmental, nervous, and cardiovascular). CARB and OEHHA determine if a substance should be formally identified, or "listed," as a TAC in California. A complete list of these substances is maintained on CARB's website.[9]

Diesel particulate matter (DPM), which is emitted in the exhaust from diesel engines, was listed by the state as a TAC in 1998. DPM has historically been used as a surrogate measure of exposure for all diesel exhaust emissions. DPM consists of fine particles (fine particles have a diameter less than 2.5 micrometer (μm)), including a subgroup of ultrafine particles (ultrafine particles have a diameter less than 0.1 μm). Collectively, these particles have a large surface area which makes them an excellent medium for absorbing organics. The visible emissions in diesel exhaust include carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and cancer-causing substances.

Exposure to DPM may be a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. DPM levels and resultant potential health effects may be higher in close proximity to heavily traveled roadways with substantial truck traffic or near industrial facilities. According to CARB, DPM exposure may lead to the following adverse health effects: (1) aggravated asthma; (2) chronic bronchitis; (3) increased respiratory and cardiovascular hospitalizations; (4) decreased lung function in children; (5) lung cancer; and (6) premature deaths for people with heart or lung disease.[10,11]

Project Site

The Project Site is located within the South Coast Air Basin (the Basin); named so because of its geographical formation is that of a basin, with the surrounding mountains trapping the air and its pollutants in the valleys or basins below. The 6,745-square-mile Basin includes all of Orange County

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9 California Air Resources Board, Toxic Air Contaminant Identification List, www.arb.ca.gov/toxics/id/taclist.htm, last reviewed by CARB July 18, 2011.

10 California Air Resources Board, Overview: Diesel Exhaust and Health, www.arb.ca.gov/research/diesel/diesel-health.htm, last reviewed by CARB April 12, 2016.

11 California Air Resources Board, Fact Sheet: Diesel Particulate Matter Health Risk Assessment Study for the West Oakland Community: Preliminary Summary of Results, March 2008.

and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. It is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto Mountains to the north and east; and the San Diego County line to the south. Ambient pollution concentrations recorded in Los Angeles County portion of the Basin are among the highest in the four counties comprising the Basin. USEPA has classified Los Angeles County as nonattainment areas for O_3, $PM_{2.5}$, and lead. This classification denotes that the Basin does not meet the NAAQS for these pollutants. In addition, under the CCAA, the Los Angeles County portion of the Basin is designated as a nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. The air quality within the Basin is primarily influenced by a wide range of emissions sources, such as dense population centers, heavy vehicular traffic, industry, and meteorology.

Air pollutant emissions are generated in the local vicinity by stationary and area-wide sources, such as commercial activity, space and water heating, landscaping maintenance, consumer products, and mobile sources primarily consisting of automobile traffic.

Air Pollution Climatology. The topography and climate of Southern California combine to make the Basin an area of high air pollution potential. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cooler surface layer which inhibits the pollutants from dispersing upward. Light winds during the summer further limit ventilation. Additionally, abundant sunlight triggers photochemical reactions which produce O_3 and the majority of particulate matter.

Air Monitoring Data. The SCAQMD monitors air quality conditions at 38 source receptor areas (SRA) throughout the Basin. The Project Site is located in SCAQMD's Central Los Angeles receptor area. Historical data from the area was used to characterize existing conditions in the vicinity of the Project area. Table 2 shows pollutant levels, State and federal standards, and the number of exceedances recorded in the area from 2018 through 2020. The one-hour State standard for O_3 was exceeded 16 times during this three-year period, including fourteen times in 2020. The federal standard was exceeded 28 times in that same period. In addition, the daily State standard for PM_{10} was exceeded 58 times, with a substantial reduction in exceedances in 2019. The daily federal standard for $PM_{2.5}$ was exceeded six times. CO and NO_2 levels did not exceed the CAAQS from 2018 to 2020 for 1-hour (and 8-hour for CO).

Table 2
Ambient Air Quality Data

Pollutants and State and Federal Standards	Maximum Concentrations and Frequencies of Exceedance Standards		
	2018	2019	2020
Ozone (O_3)			
Maximum 1-hour Concentration (ppm)	0.098	0.080	0.185
Days > 0.09 ppm (State 1-hour standard)	2	0	14
Days > 0.070 ppm (Federal 8-hour standard)	4	2	22
Carbon Monoxide (CO_2)			
Maximum 1-hour Concentration (ppm)	2.0	2.0	1.9
Days > 20 ppm (State 1-hour standard)	0	0	0
Maximum 8-hour Concentration (ppm)	1.7	1.6	1.5
Days > 9.0 ppm (State 8-hour standard)	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour Concentration (ppm)	0.0701	0.0697	0.0618

Days > 0.18 ppm (State 1-hour standard)	0	0	0
PM_{10}			
Maximum 24-hour Concentration (µg/m^3)	81	62	77
Days > 50 µg/m^3 (State 24-hour standard)	31	3	24
$PM_{2.5}$			
Maximum 24-hour Concentration (µg/m^3)	49.2	43.5	47.3
Days > 35 µg/m^3 (Federal 24-hour standard)	3	1	2
Sulfur Dioxide (SO_2)			
Maximum 24-hour Concentration (ppb)	17.9	10.0	3.8
Days > 0.04 ppm (State 24-hour standard)	0	0	0

ppm = parts by volume per million of air.
µg/m^3 = micrograms per cubic meter.
N/A = not available at this monitoring station.
Source: SCAQMD annual monitoring data at Central LA subregion (http://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year) accessed October 28, 2022.

Existing Health Risk in the Surrounding Area. Based on the MATES-V model, the calculated cancer risk in the Project area (zip code 90039) is approximately 580 in a million.[12] The cancer risk in this area is predominately related to nearby sources of diesel particulate matter (e.g., diesel trucks and traffic on the Golden State Freeway 4,000 feet to the south). In general, the risk at the Project Site is higher than 89 percent of the population across the South Coast Air Basin.

The Office of Environmental Health Hazard Assessment, on behalf of the California Environmental Protection Agency (CalEPA), provides a screening tool called CalEnviroScreen that can be used to help identify California communities disproportionately burdened by multiple sources of pollution. According to CalEnviroScreen, the Project Site (Census tract 6037195100) is located in the 31st percentile, which means the Project Site has an overall environmental pollution burden higher than at least 31 percent of other communities within California.[13]

Sensitive Receptors. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The California Air Resources Board (CARB) has identified the following groups who are most likely to be affected by air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

The Project Site is located in the Silver Lake neighborhood. Sensitive receptors within 0.25 miles of the Project Site include, but are not limited to, the following representative sampling:

- Residences, Hyperion Avenue (east side); directly north of the Project Site.

[12] South Coast Air Quality Management District, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-V), MATES V Interactive Carcinogenicity Map, 2021, https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/home/?data_id=dataSource_105-a5ba9580e3aa43508a793fac819a5a4d%3A26&views=view_39%2Cview_1, accessed October 28, 2022.

[13] Office of Environmental Health Hazard Assessment, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40, accessed October 28, 2022.

- Residences, 2344 Griffith Park Boulevard; directly south of the Project Site.
- Lyric Preschool, 2328 Hyperion Avenue, directly south of the Project Site.
- Residences, 2340 Griffith Park Boulevard; 20 feet east of the Project Site.
- Residences, Hyperion Avenue (west side); 100 feet west of the Project Site.
- Residences, Griffith Park Boulevard (east side); 140 feet east of the Project Site.

Existing Project Site Emissions. The Project Site is improved with an 1,800 square-foot commercial building and a 1,752 square-foot commercial plumbing shop, storage building and garage, and 6,650 square-foot surface parking lot.[14] As summarized in Table 3, most existing air quality emissions are associated with the 387 daily vehicle trips traveling to and from the Project Site.[15]

Table 3
Existing Daily Operations Emissions

Emissions Source	Daily Emissions (Pounds Per Day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area Sources	0.1	<0.1	0.2	<0.1	<0.1	<0.1
Energy Sources	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile Sources	1.5	1.1	11.7	<0.1	0.8	0.2
Regional Total	**1.6**	**1.2**	**11.9**	**<0.1**	**0.8**	**0.2**
Source: DKA Planning, 2022 based on CalEEMod 2022.1 model runs (included in Appendix).						

Project Impacts

Methodology

The air quality analysis conducted for the Project is consistent with the methods described in the SCAQMD CEQA Air Quality Handbook (1993 edition), as well as the updates to the CEQA Air Quality Handbook, as provided on the SCAQMD website. The SCAQMD recommends the use of the California Emissions Estimator Model (CalEEMod, version 2022.1) as a tool for quantifying emissions of air pollutants that will be generated by constructing and operating development projects. The analyses focus on the potential change in air quality conditions due to Project implementation. Air pollutant emissions would result from both construction and operation of the Project. Specific methodologies used to evaluate these emissions are discussed below.

Construction. Sources of air pollutant emissions associated with construction activities include heavy-duty off-road diesel equipment and vehicular traffic to and from the Project construction site. Project-specific information was provided describing the schedule of construction activities and the equipment inventory required from the Applicant. Details pertaining to the schedule and equipment can be found in the Technical Appendix to this analysis. The CalEEMod model provides default values for daily equipment usage rates and worker trip lengths, as well as emission factors for heavy-duty equipment, passenger vehicles, and haul trucks that have been derived by the CARB. Maximum daily emissions

[14] City of Los Angeles, ZIMAS database, accessed October 31, 2022.
[15] City of Los Angeles VMT Calculator Project Screening Summary, version 1.3.

were quantified for each construction activity based on the number of equipment and daily hours of use, in addition to vehicle trips to and from the Project Site.

The SCAQMD recommends that air pollutant emissions be assessed for both regional scale and localized impacts. The regional emissions analysis includes both on-site and off-site sources of emissions, while the localized emissions analysis focuses only on sources of emissions that would be located on the Project Site.

Localized impacts were analyzed in accordance with the SCAQMD Localized Significance Threshold (LST) methodology.[16] The localized effects from on-site portion of daily emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to the SCAQMD's LST methodology, which uses on-site mass emission look-up tables and Project-specific modeling, where appropriate.[17] SCAQMD provides LSTs applicable to the following criteria pollutants: NO_X, CO, PM_{10}, and $PM_{2.5}$. SCAQMD does not provide an LST for SO_2 since land use development projects typically result in negligible construction and long-term operation emissions of this pollutant. Since VOCs are not a criteria pollutant, there is no ambient standard or SCAQMD LST for VOCs. Due to the role VOCs play in O_3 formation, it is classified as a precursor pollutant, and only a regional emissions threshold has been established.

LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. The mass rate look-up tables were developed for each source receptor area and can be used to determine whether or not a project may generate significant adverse localized air quality impacts. SCAQMD provides LST mass rate look-up tables for projects with active construction areas that are less than or equal to five acres. If the project exceeds the LST look-up values, then the SCAQMD recommends that project-specific air quality modeling must be performed. Please refer to **Threshold b** below, for the analysis of localized impacts from on-site construction activities. In accordance with SCAQMD guidance, maximum daily emissions of NO_X, CO, PM_{10}, and $PM_{2.5}$ from on-site sources during each construction activity were compared to LST values for a one-acre site having sensitive receptors within 25 meters (82 feet).[18] This is appropriate given the 0.23-acre site and the proximity of sensitive receptors immediately adjacent to the Project Site.

The Basin is divided into 38 SRAs, each with its own set of maximum allowable LST values for on-site emissions sources during construction and operations based on locally monitored air quality. Maximum on-site emissions resulting from construction activities were quantified and assessed against the applicable LST values.

The significance criteria and analysis methodologies in the SCAQMD's CEQA Air Quality Handbook were used in evaluating impacts in the context of the CEQA significance criteria listed below. The SCAQMD localized significance thresholds (LSTs) for NO_2, CO, and PM_{10} were initially published in

16 South Coast Air Quality Management District, Final Localized Significance Methodology, revised July 2008.

17 South Coast Air Quality Management District, LST Methodology Appendix C-Mass Rate LST Look-Up Table, October 2009.

18 South Coast Air Quality Management District, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds, 2008.

June 2003 and revised in July 2008.[19] The LSTs for $PM_{2.5}$ were established in October 2006.[20] Updated LSTs were published on the SCAQMD website on October 21, 2009.[21] Table 4 presents the significance criteria for both construction and operational emissions.

Table 4
SCAQMD Emissions Thresholds

Criteria Pollutant	Construction Emissions		Operation Emissions	
	Regional	Localized /a/	Regional	Localized /a/
Volatile Organic Compounds (VOC)	75	--	55	--
Nitrogen Oxides (NO_X)	100	74	55	74
Carbon Monoxide (CO)	550	680	550	680
Sulfur Oxides (SO_X)	150	--	150	--
Respirable Particulates (PM_{10})	150	5	150	2
Fine Particulates ($PM_{2.5}$)	55	3	55	1

/a/ Localized significance thresholds assumed a one-acre and 25-meter (82-foot) receptor distance in the Central LA source receptor area. The SCAQMD has not developed LST values for VOC or SO_X. Pursuant to SCAQMD guidance, sensitive receptors closer than 25 meters to a construction site are to use the LSTs for receptors at 25 meters (SCAQMD Final Localized Significance Threshold Methodology, June 2008).

Source: SCAQMD, South Coast AQMD Air Quality Significance Thresholds, 2019

Operations. CalEEMod also generates estimates of daily and annual emissions of air pollutants resulting from future operation of a project. Operational emissions of air pollutants are produced by mobile sources (vehicular travel) and stationary sources (utilities demand). Utilities for the Project Site are provided by the Los Angeles Department of Water and Power (LADWP) for electricity and Southern California Gas for natural gas. CalEEMod has derived default emissions factors for electricity and natural gas usage that are applied to the size and land use type of the Project in question. CalEEMod also generates estimated operational emissions associated water use, wastewater generation, and solid waste disposal.

Similar to construction, SCAQMD's CalEEMod software was used for the evaluation of Project emissions during operation. CalEEMod was used to calculate on-road fugitive dust, architectural coatings, landscape equipment, energy use, mobile source, and stationary source emissions. To determine if a significant air quality impact would occur, the net increase in regional and local operational emissions generated by the Project was compared against the SCAQMD's significance thresholds.[22] Details describing the operational emissions of the Project can be found in in the Technical Appendix.

Toxic Air Contaminants Impacts (Construction and Operations). Potential TAC impacts are evaluated by conducting a qualitative analysis consistent with the CARB Handbook followed by a more detailed

19 South Coast Air Quality Management District, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds, 2008.

20 South Coast Air Quality Management District, Final – Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, October 2006.

21 South Coast Air Quality Management District, Final Localized Significance Threshold Methodology Appendix C – Mass Rate LST Look-Up Tables, October 21, 2009.

22 South Coast Air Quality Management District, Air Quality Significance Thresholds, revised March 2015. SCAQMD based these thresholds, in part on the federal Clean Air Act and, to enable defining "significant" for CEQA purposes, defined the setting as the South Coast Air Basin. (See SCAQMD, CEQA Air Quality Handbook, April 1993, pp. 6-1-6-2).

analysis (i.e., dispersion modeling), as necessary. The qualitative analysis consists of reviewing the Project to identify any new or modified TAC emissions sources. If the qualitative evaluation does not rule out significant impacts from a new source, or modification of an existing TAC emissions source, a more detailed analysis is conducted.

Thresholds of Significance

State CEQA Guidelines Appendix G

Would the Project:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard;

c) Expose sensitive receptors to substantial pollutant concentrations; or

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

City and SCAQMD Thresholds

For this analysis the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations recommended by the City of Los Angeles and SCAQMD Thresholds, as appropriate, to assist in answering the Appendix G Threshold questions.

(a) Construction

The City recommends that determination of significance be made on a case-by-case basis, considering the following criteria to evaluate construction-related air emissions:

(i) Combustion Emissions from Construction Equipment

- Type, number of pieces and usage for each type of construction equipment;
- Estimated fuel usage and type of fuel (diesel, natural gas) for each type of equipment; and
- Emission factors for each type of equipment.

(ii) Fugitive Dust—Grading, Excavation and Hauling

- Amount of soil to be disturbed on-site or moved off-site;
- Emission factors for disturbed soil;
- Duration of grading, excavation and hauling activities;
- Type and number of pieces of equipment to be used; and
- Projected haul route.

(iii) Fugitive Dust—Heavy-Duty Equipment Travel on Unpaved Road

- Length and type of road;
- Type, number of pieces, weight and usage of equipment; and
- Type of soil.

(iv) Other Mobile Source Emissions

- Number and average length of construction worker trips to Project Site, per day; and
- Duration of construction activities.

In addition, the following criteria set forth in the SCAQMD's *CEQA Air Quality Handbook* serve as quantitative air quality standards to be used to evaluate project impacts under the Appendix G Thresholds. Under these thresholds, a significant threshold would occur when:[23]

- Regional emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed threshold levels: (1) 100 pounds per day for NO_X; (2) 75 pounds a day for VOC; (3) 150 pounds per day for PM_{10} or SO_X; (4) 55 pounds per day for $PM_{2.5}$; and (5) 550 pounds per day for CO.

- Maximum on-site daily localized emissions exceed the LST, resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent ambient air quality standards for CO (20 ppm [23,000 µg/m^3] over a 1-hour period or 9.0 ppm [10,350 µg/m^3] averaged over an 8-hour period) and NO_2 (0.18 ppm [339 µg/m^3] over a 1-hour period, 0.1 ppm [188 µg/m^3] over a three-year average of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm [57 µg/m^3] averaged over an annual period).

- Maximum on-site localized PM_{10} or $PM_{2.5}$ emissions during construction exceed the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the Project Site to exceed the incremental 24-hour threshold of 10.4 µg/m^3 or 1.0 µg/m^3 PM_{10} averaged over an annual period.

(b) Operation

The City bases the determination of significance of operational air quality impacts on criteria set forth in the SCAQMD's *CEQA Air Quality Handbook.*[24] As discussed above, the City uses Appendix G as the thresholds of significance for this analysis. Accordingly, the following serve as quantitative air quality standards to be used to evaluate project impacts under the Appendix G thresholds. Under these thresholds, a significant threshold would occur when:

- Operational emissions exceed 10 tons per year of volatile organic gases or any of the following SCAQMD prescribed threshold levels: (1) 55 pounds a day for VOC;[25] (2) 55 pounds per day for

23 South Coast Air Quality Management District, Air Quality Significance Thresholds, revised March 2015.

24 South Coast Air Quality Management District, Air Quality Significance Thresholds, revised March 2015.

25 For purposes of this analysis, emissions of VOC and reactive organic compounds (ROG) are used interchangeably since ROG represents approximately 99.9 percent of VOC emissions.

NO_X; (3) 550 pounds per day for CO; (4) 150 pounds per day for SO_X; (5) 150 pounds per day for PM_{10}; and (6) 55 pounds per day for $PM_{2.5}$.[26]

- Maximum on-site daily localized emissions exceed the LST, resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent ambient air quality standards for CO (20 parts per million (ppm) over a 1-hour period or 9.0 ppm averaged over an 8-hour period) and NO_2 (0.18 ppm over a 1-hour period, 0.1 ppm over a 3-year average of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm averaged over an annual period).[27]

- Maximum on-site localized operational PM_{10} and $PM_{2.5}$ emissions exceed the incremental 24-hour threshold of 2.5 µg/m^3 or 1.0 µg/m^3 PM_{10} averaged over an annual period.[28]

- The Project causes or contributes to an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 ppm, respectively; or

- The Project creates an odor nuisance pursuant to SCAQMD Rule 402.

(c) Toxic Air Contaminants

The City recommends that the determination of significance shall be made on a case-by-case basis, considering the following criteria to evaluate TACs:

- Would the project use, store, or process carcinogenic or non-carcinogenic toxic air contaminants which could result in airborne emissions?

In assessing impacts related to TACs in this section, the City uses Appendix G as the thresholds of significance. The criteria identified above will be used where applicable and relevant to assist in analyzing the Appendix G thresholds. In addition, the following criteria set forth in the SCAQMD's *CEQA Air Quality Handbook* serve as quantitative air quality standards to be used to evaluate project impacts under Appendix G thresholds. Under these thresholds, a significant threshold would occur when:[29]

- The Project results in the exposure of sensitive receptors to carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk of 10 in one million or an acute or chronic hazard index of 1.0.[30] For projects with a maximum incremental cancer risk

26 South Coast Air Quality Management District, Quality Significance Thresholds, www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf, last updated March 2015.

27 South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, revised July 2008.

28 South Coast Air Quality Management District, Final—Methodology to Calculate Particulate Matter (PM) 2.5 and $PM_{2.5}$ Significance Thresholds, October 2006.

29 South Coast Air Quality Management District, CEQA Air Quality Handbook, April 1993, Chapter 6 (Determining the Air Quality Significance of a Project) and Chapter 10 (Assessing Toxic Air Pollutants).

30 Hazard index is the ratio of a toxic air contaminant's concentration divided by its Reference Concentration, or safe exposure level. If the hazard index exceeds one, people are exposed to levels of TACs that may pose noncancer health risks.

between 1 in one million and 10 in one million, a project would result in a significant impact if the cancer burden exceeds 0.5 excess cancer cases.

(d) Consistency with Applicable Air Quality Plans

CEQA Guidelines Section 15125 requires an analysis of project consistency with applicable governmental plans and policies. This analysis is conducted to assess potential project impacts against Threshold (a) from the Appendix G thresholds. In accordance with the SCAQMD's *CEQA Air Quality Handbook*, the following criteria are used to evaluate a project's consistency with the AQMP:[31]

- Will the Project result in any of the following:
  - An increase in the frequency or severity of existing air quality violations;
  - Cause or contribute to new air quality violations; or
  - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP?
- Will the Project exceed the assumptions utilized in preparing the AQMP?
  - Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
  - Does the Project include air quality mitigation measures; or
  - To what extent is Project development consistent with the AQMP land use policies?

The Project's impacts with respect to these criteria are discussed to assess the consistency with the SCAQMD's AQMP and SCAG regional plans and policies. In addition, the Project's consistency with the City of Los Angeles General Plan Air Quality Element is discussed.

Project Design Features. The Project would comply with the update to the 2020 Los Angeles Green Building Code (LAGBC),[32] which will build upon and set higher standards than those in the 2022 California Green Building Standards Code (CalGreen, effective January 1, 2023).[33] Further energy efficiency and sustainability features would include native plants and drip/subsurface irrigation systems, individual metering or sub metering for water use, leak detection systems, and electric vehicle charging capacity.

The Project's infill location would promote the concentration of development in an urban location with extensive infrastructure and access to public transit facilities. The Project's proximity to public transportation would reduce vehicle miles traveled for residents and visitors who want options to driving cars.

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31 South Coast Air Quality Management District, CEQA Air Quality Handbook, April 1993, p. 12-3.

32 City of Los Angeles Department of Building and Safety: http://ladbs.org/forms-publications/forms/green-building.

33 California Building Codes: http://www.bsc.ca.gov/Codes.aspx.

Analysis of Project Impacts

a. Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The Project's air quality emissions would not exceed any state or federal standards. Therefore, the Project would not increase the frequency or severity of an existing violation or cause or contribute to new violations for these pollutants. As the Project would not exceed any of the state and federal standards, the Project would also not delay timely attainment of air quality standards or interim emission reductions specified in the AQMP.

With respect to the determination of consistency with AQMP growth assumptions, the projections in the AQMP for achieving air quality goals are based on assumptions in SCAG's 2016–2040 RTP/SCS regarding population, housing, and growth trends. Determining whether or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of three criteria: (1) consistency with applicable population, housing, and employment growth projections; (2) project mitigation measures; and (3) appropriate incorporation of AQMP land use planning strategies. The following discussion provides an analysis with respect to each of these three criteria.

- Is the project consistent with the population, housing, and employment growth projections upon which AQMP forecasted emission levels are based?

A project is consistent with the AQMP, in part, if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. In the case of the 2016 AQMP, two sources of data form the basis for the projections of air pollutant emissions: the City of Los Angeles General Plan and SCAG's RTP. The General Plan serves as a comprehensive, long-term plan for future development of the City.

The 2016-2040 RTP/SCS provides socioeconomic forecast projections of regional population growth.[34] The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review. Based on the average 2020 persons-per-household rate for the City of 2.42 persons per household,[35] the Project would add a net residential population of approximately 37 people to the Project Site based on the 15 dwelling units proposed. The Project's residential population would represent approximately 0.005 percent of the forecasted growth between 2012 and 2040 in the City and would therefore be consistent with the projections in the AQMP.

As of September 3, 2020, the 2020 RTP/SCS is the adopted metropolitan transportation plan for the region. The 2020 RTP/SCS accommodates 4,771,300 persons; 1,793,000 households; and 2,135,900 jobs in the City of Los Angeles by 2045. The Project's residential population would represent approximately 0.004 percent of the forecasted population growth between 2016 and 2045. When the AQMP is updated in 2022, it will use these growth forecasts as the basis of its attainment plan.

[34] The current applicable air quality attainment plan for the region is the 2016 AQMP, which is based on the growth assumptions in the 2016 RTP/SCS. As such, the 2016 RTP/SCS was used as the basis for this analysis.

[35] Jack Tsao, Data Analyst II, Los Angeles Department of City Planning, July 31, 2019.

While the removal of the existing commercial use and plumber's office would eliminate some jobs, it would not help produce job growth that exceeds the capacity that is accommodated in the 2016 AQMP. As a result, the Project would be consistent with the projections in the AQMP.

- Does the project implement feasible air quality mitigation measures?

As discussed below under Thresholds (b), (c), and (d), the Project would not result in any significant air quality impacts and therefore would not require mitigation. In addition, the Project would comply with all applicable regulatory standards as required by SCAQMD. Furthermore, with compliance with the regulatory requirements identified above, no significant air quality impacts would occur. As such, the proposed Project meets this AQMP consistency criterion.

- To what extent is project development consistent with the land use policies set forth in the AQMP?

With regard to land use developments such as the Project, the AQMP's air quality policies focus on the reduction of vehicle trips and vehicle miles traveled (VMT). The Project would serve to implement a number of land use policies of the City of Los Angeles, SCAQMD, and SCAG. The Project would be designed and constructed to support and promote environmental sustainability. The Project represents an infill development within an existing urbanized area that would concentrate more housing and population within a high quality transit area (HQTA). "Green" principles are incorporated throughout the Project to comply with the City of Los Angeles Green Building Code and the California Green Building Standards Code (CALGreen) through energy conservation, water conservation, and waste reduction features.

The air quality plan applicable to the Project area is the 2016 AQMP. The 2016 AQMP is the SCAQMD plan for improving regional air quality in the Basin. The 2016 AQMP is the current management plan for continued progression toward clean air and compliance with State and federal requirements. It includes a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on- and off-road mobile sources, and area sources. The 2016 AQMP also incorporates current scientific information and meteorological air quality models. It also updates the federally approved 8-hour O_3 control plan with new commitments for short-term NO_X and VOC reductions. The 2016 AQMP includes short-term control measures related to facility modernization, energy efficiency, good management practices, market incentives, and emissions growth management.

As demonstrated in the following analyses, the Project would not result in significant regional emissions. The 2016 AQMP adapts previously conducted regional air quality analyses to account for the recent unexpected drought conditions and presents a revised approach to demonstrated attainment of the 2006 24-hour $PM_{2.5}$ NAAQS for the Basin. Directly applicable to the Project, the 2016 AQMP proposes robust NO_X reductions from residential appliances. The Project would be required to comply with all new and existing regulatory measures set forth by the SCAQMD. Implementation of the Project would not interfere with air pollution control measures listed in the 2016 AQMP.

The Project Site is classified as "Community Commercial" in the General Plan Framework, a classification that allows multi-family housing such as that proposed by the Project. As such, the RTP/SCS' assumptions about growth in the City accommodate the projected population on the Project Site. As a result, the Project would be consistent with the growth assumptions in the City's General Plan. Because the AQMP accommodates growth forecasts from local General Plans, the emissions associated with this Project are accounted for and mitigated in the region's air quality attainment plans.

The air quality impacts of development on the Project Site are accommodated in the region's emissions inventory for the 2016 RTP/SCS and 2016 AQMP. Therefore, Project impacts with respect to AQMP consistency would be less than significant.

City of Los Angeles Policies

The Project would offer convenient access to public transit and opportunities for walking and biking (including the provision of bicycle parking), thereby facilitating a reduction in VMT. In addition, the Project would be consistent with the existing land use pattern in the vicinity that concentrates urban density along major arterials and near transit options based on the following:

- The Project Site is within a HQTA, which reflects areas with rail transit service or bus service where lines have peak headways of less than 15 minutes.[36]
- The Project Site is considered a Transit Oriented Communities (TOC) Tier 2 based on the shortest distance between any point on the lot and qualified Major Transit Stops.[37]
- Public transit service in the area includes Metro Line 2 which connects Westwood with Exposition Park along Sunset Boulevard and other major arterials. The nearest bus stop is on Fountain Avenue southwest of the Project Site.
- There are Class 2 bicycle lanes on Griffith Park Boulevard that provides continuous north-west travel lanes from Sunset Boulevard.

The City's General Plan Air Quality Element identifies 30 policies with specific strategies for advancing the City's clean air goals. As illustrated in Table 5, the Project is consistent with the applicable policies in the Air Quality Element, as the Project would implement sustainability features that would reduce vehicular trips, reduce VMT, and encourage the use of alternative modes of transportation. Therefore, the Project would result in a less than significant impact related to consistency with the Air Quality Element.

Table 5
Project Consistency with City of Los Angeles General Plan Air Quality Element

Strategy	Project Consistency
Policy 1.3.1. Minimize particulate emissions from construction sites.	**Consistent.** The Project would minimize particulate emissions during construction through best practices and/or SCAQMD rules (e.g., Rule 403, Fugitive Dust).
Policy 1.3.2. Minimize particulate emissions from unpaved roads and parking lots associated with vehicular traffic.	**Not Applicable.** The Project would not involve use of unpaved roads or parking lots.
Policy 2.1.1. Utilize compressed work weeks and flextime, telecommuting, carpooling, vanpooling, public transit, and improve walking/bicycling related facilities in order to	**Consistent.** Workers in the 477 square-foot retail space could and residents could take advantage of public transit and active transportation options. Metro Line 2 provides local bus service at Sunset Boulevard that

[36] Southern California Association of Governments Data Portal https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_active-transportation.pdf?1606001530,

[37] Major Transit Stop is a site containing a rail station or the intersection of two or more bus routes with a service interval of 15 minutes or less during the morning and afternoon peak commute periods. The stations or bus routes may be existing, under construction or included in the most recent Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP).

Table 5
Project Consistency with City of Los Angeles General Plan Air Quality Element

Strategy	Project Consistency
reduce vehicle trips and/or VMT as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.	connects Westwood to Exposition Park. Bicyclists can take advantage of Class 2 bicycle lanes on Griffith Park Boulevard. A resident lounge provides residents with another opportunity for remote working through telecommunications.
Policy 2.1.2. Facilitate and encourage the use of telecommunications (i.e., telecommuting) in both the public and private sectors, in order to reduce work trips.	**Consistent.** Residents could use high-speed telecommunications services as an alternative to driving to work. A June 2020 study by the National Bureau of Economic Research found that 37 percent of jobs can be performed entirely from home (https://www.nber.org/papers/w26948). As such, the Proposed Project could help reduce commuting to work through telecommuting. A resident lounge provides residents with another opportunity for remote working through telecommunications.
Policy 2.2.1. Discourage single-occupant vehicle use through a variety of measures such as market incentive strategies, mode-shift incentives, trip reduction plans and ridesharing subsidies.	**Consistent.** Residents, workers, and visitors can use public transit, including Metro Line 2, which provides local bus service at Sunset Boulevard, connecting Westwood to Exposition Park. Bicyclists can take advantage of Class 2 bicycle lanes on Griffith Park Boulevard. A resident lounge provides residents with another opportunity for remote working through telecommunications.
Policy 2.2.2. Encourage multi-occupant vehicle travel and discourage single-occupant vehicle travel by instituting parking management practices.	**Consistent.** As noted above, the Project Site's TOC Tier 2 status allows the garage to be limited to parking for 19 vehicles. The development would provide transportation options to residents as an option to driving.
Policy 2.2.3. Minimize the use of single-occupant vehicles associated with special events or in areas and times of high levels of pedestrian activities.	**Not Applicable.** The Project would not include facilities for special events.
Policy 3.2.1. Manage traffic congestion during peak hours.	**Consistent.** The Project is a low traffic generator because of the nature of residential uses, which generate peak hour vehicle trips that are lower than commercial, retail, and restaurant uses. Further, the Project would also minimize traffic congestion based on its location near transit opportunities, which would encourage the use of alternative modes of transportation. Residents, workers, and visitors can use public transit, including Metro Line 2, which provides local bus service at Sunset Boulevard, connecting Westwood to Exposition Park. Bicyclists can take advantage of Class 2 bicycle lanes on Griffith Park Boulevard. A resident lounge provides residents with another opportunity for remote working through telecommunications.

Table 5
Project Consistency with City of Los Angeles General Plan Air Quality Element

Strategy	Project Consistency
Policy 4.1.1. Coordinate with all appropriate regional agencies on the implementation of strategies for the integration of land use, transportation, and air quality policies.	**Consistent.** The Project is being entitled through the City of Los Angeles, which coordinates with SCAG, Metro, and other regional agencies on the coordination of land use, air quality, and transportation policies.
Policy 4.1.2. Ensure that project level review and approval of land use development remains at the local level.	**Consistent.** The Project would be entitled and environmentally cleared at the local level.
Policy 4.2.1. Revise the City's General Plan/Community Plans to achieve a more compact, efficient urban form and to promote more transit-oriented development and mixed-use development.	**Not Applicable.** This policy calls for City updates to its General Plan.
Policy 4.2.2. Improve accessibility for the City's residents to places of employment, shopping centers and other establishments.	**Consistent.** The Project would be infill development that would provide the City's residents with proximate access to jobs and services at this Project Site.
Policy 4.2.3. Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.	**Consistent.** The Project would promote public transit, active transportation, and alternative fuel vehicles for residents, workers, and visitors, who can use public transit, including Metro Line 2, which provides local bus service at Sunset Boulevard, connecting Westwood to Exposition Park. Bicyclists can take advantage of Class 2 bicycle lanes on Griffith Park Boulevard. A resident lounge provides residents with another opportunity for remote working through telecommunications. The Project would also include six parking spaces with electric vehicle charging stations and conduits and supplies for future charging stations.
Policy 4.2.4. Require that air quality impacts be a consideration in the review and approval of all discretionary projects.	**Consistent.** The Project's air quality impacts are analyzed in this document, and as discussed herein, all impacts with respect to air quality would be less than significant.
Policy 4.2.5. Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects.	**Consistent.** The proposed project would support use of alternative transportation modes. The Project Site is well-served by public transit, including Metro Line 2, which provides local bus service at Sunset Boulevard, connecting Westwood to Exposition Park. Bicyclists can take advantage of Class 2 bicycle lanes on Griffith Park Boulevard. A resident lounge provides residents with another opportunity for remote working through telecommunications.
Policy 4.3.1. Revise the City's General Plan/Community Plans to ensure that new or relocated sensitive receptors are located to minimize significant health risks posed by air pollution sources.	**Not Applicable.** This policy calls for City updates to its General Plan.
Policy 4.3.2. Revise the City's General Plan/Community Plans to ensure that new or	**Not Applicable.** This policy calls for City updates to its General Plan.

Table 5
Project Consistency with City of Los Angeles General Plan Air Quality Element

Strategy	Project Consistency
relocated major air pollution sources are located to minimize significant health risks to sensitive receptors.	
Policy 5.1.1. Make improvements in Harbor and airport operations and facilities in order to reduce air emissions.	**Not Applicable.** This policy calls for cleaner operations of the City's water port and airport facilities.
Policy 5.1.2. Effect a reduction in energy consumption and shift to non-polluting sources of energy in its buildings and operations.	**Not Applicable.** This policy calls for cleaner operations of the City's buildings and operations.
Policy 5.1.3. Have the Department of Water and Power make improvements at its in-basin power plants in order to reduce air emissions.	**Not Applicable.** This policy calls for cleaner operations of the City's Water and Power energy plants.
Policy 5.1.4. Reduce energy consumption and associated air emissions by encouraging waste reduction and recycling.	**Consistent.** The Project would be consistent with this policy by complying with Title 24, CALGreen, and other requirements to reduce solid waste and energy consumption. This includes the City's March 2010 ordinance (Council File 09-3029) that requires all mixed construction and demolition waste be taken to City-certified waste processors.
Policy 5.2.1. Reduce emissions from its own vehicles by continuing scheduled maintenance, inspection and vehicle replacement programs; by adhering to the State of California's emissions testing and monitoring programs; by using alternative fuel vehicles wherever feasible, in accordance with regulatory agencies and City Council policies.	**Not Applicable.** This policy calls for the City to gradually reduce the fleet emissions inventory from its vehicles through use of alternative fuels, improved maintenance practices, and related operational improvements. The Project's support of electric vehicles will continue the State's conversion to zero emission fleets that do not required engine inspections
Policy 5.3.1. Support the development and use of equipment powered by electric or low-emitting fuels.	**Consistent.** The Project would be designed to meet the applicable requirements of the States Green Building Standards Code and the City of Los Angeles' Green Building Code, both of which promote a shift from natural gas use toward electrification of buildings. The Project would also include six parking spaces with electric vehicle charging stations and conduits and supplies for future charging stations.
Policy 6.1.1. Raise awareness through public-information and education programs of the actions that individuals can take to reduce air emissions.	**Not Applicable.** This policy calls for the City to promote clean air awareness through its public awareness programs.
Source: DKA Planning, 2022.	

b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact.

Construction

A cumulatively considerable net increase would occur if the project's construction impacts substantially contribute to air quality violations when considering other projects that may undertake construction activities at the same time. Individual projects that generate emissions that do not exceed SCAQMD's significance thresholds would not contribute considerably to any potential cumulative impact. SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to assess the impacts associated with these emissions.[38]

Construction-related emissions were estimated using the SCAQMD's CalEEMod 2022.1 model and a projected construction schedule of at least 24 months. Table 6 summarizes the estimated construction schedule that was modeled for air quality impacts.

Table 6
Construction Schedule Assumptions

Phase	Duration	Notes
Demolition	Month 1	Removal of 3,552 square feet of building floor area and 6,650 square feet of asphalt/concrete parking lot hauled 25 miles to landfill in 10-cubic yard capacity trucks.
Grading	Month 2	Approximately 2,250 cubic yards of soil (including swell factors for topsoil and dry clay) hauled 25 miles to landfill in 10-cubic yard capacity trucks.
Trenching	Months 3-6	Trenching for utilities, including gas, water, electricity, and telecommunications.
Building Construction	Months 3-24	Footings and foundation work, framing, welding; installing mechanical, electrical, and plumbing. Floor assembly, cabinetry and carpentry, elevator installations, low voltage systems, trash management.
Architectural Coatings	Months 21-24	Application of interior and exterior coatings and sealants.
Source: DKA Planning, 2022.		

[38] South Coast Air Quality Management District, 2003 White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution: "As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR…Projects that exceed the project-specific significance threshold are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are not considered to be cumulatively significant.

The Project would be required to comply with the following regulations, as applicable:

- SCAQMD Rule 403, would reduce the amount of particulate matter entrained in ambient air as a result of anthropogenic fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

- SCAQMD Rule 1113, which limits the VOC content of architectural coatings.

- SCAQMD Rule 402, which states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

- In accordance with Section 2485 in Title 13 of the California Code of Regulations, the idling of all diesel-fueled commercial vehicles (with gross vehicle weight over 10,000 pounds) during construction would be limited to five minutes at any location.

- In accordance with Section 93115 in Title 17 of the California Code of Regulations, operation of any stationary, diesel-fueled, compression-ignition engines would meet specific fuel and fuel additive requirements and emissions standards.

Regional Emissions

Construction activity creates air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers traveling to and from the Project Site. NO_X emissions would primarily result from the use of construction equipment and truck trips.

Fugitive dust emissions would peak during grading activities, where approximately 2,250 cubic yards of soil (including swell factors for topsoil and clay) would be exported from the Project Site to accommodate a partial one-level subterranean structure. All construction projects in the Basin must comply with SCAQMD Rule 403 for fugitive dust. Rule 403 control requirements include measures to prevent the generation of visible dust plumes. Measures include, but are not limited to, applying water and/or soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system or other control measures to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project Site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce regional $PM_{2.5}$ and PM_{10} emissions associated with construction activities by approximately 61 percent.

During the building finishing phase, the application of architectural coatings (e.g., paints) would potentially release VOCs (regulated by SCAQMD Rule 1113). The assessment of construction air quality impacts considers each of these potential sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

As shown in Table 7, construction of the Project would produce VOC, NO_X, CO, SO_X, PM_{10} and $PM_{2.5}$ emissions that do not exceed the SCAQMD's regional thresholds. As a result, construction of the Project would not contribute substantially to an existing violation of air quality standards for regional pollutants (e.g., ozone). This impact is considered less than significant.

Localized Emissions

In addition to maximum daily regional emissions, maximum localized (on-site) emissions were quantified for each construction activity. The localized construction air quality analysis was conducted using the methodology promulgated by the SCAQMD. Look-up tables provided by the SCAQMD were used to determine localized construction emissions thresholds for the Project.[39] LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are based on the most recent background ambient air quality monitoring data (2018-2020) for the Project area.

Table 7
Daily Construction Emissions

Construction Phase Year	Daily Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
2023	1.4	14.8	12.8	<0.1	3.3	1.7
2024	0.6	5.8	8.1	<0.1	0.5	0.3
2025	1.9	6.2	9.3	<0.1	0.5	0.3
Maximum Regional Total	1.9	14.8	12.8	<0.1	3.3	1.7
Regional Threshold	75	100	550	150	150	55
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Maximum Localized Total	1.9	12.6	11.4	<0.1	2.7	1.6
Localized Threshold	N/A	74	680	N/A	5	3
Exceed Threshold?	**N/A**	**No**	**No**	**N/A**	**No**	**No**

The construction dates are used for the modeling of air quality emissions in the CalEEMod software. If construction activities commence later than what is assumed in the environmental analysis, the actual emissions would be lower than analyzed because of the increasing penetration of newer equipment with lower certified emission levels. Assumes implementation of SCAQMD Rule 403 (Fugitive Dust Emissions)

Source: DKA Planning, 2022 based on CalEEMod 2022.1 model runs. LST analyses based on one-acre site with 25-meter distances to receptors in Central LA source receptor area. Estimates reflect the peak summer or winter season, whichever is higher. Totals may not add up due to rounding. Modeling sheets included in the Technical Appendix.

Maximum on-site daily construction emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ were calculated using CalEEMod and compared to the applicable SCAQMD LSTs for the Central Los Angeles SRA based on construction site acreage that is less than or equal to one acre. Potential impacts were evaluated at the closest off-site sensitive receptor, which are the residences and preschool to the south of the Project Site. The closest receptor distance on the SCAQMD mass rate LST look-up tables is 25 meters.

As shown in Table 7, above**,** the Project would produce emissions that do not exceed the SCAQMD's recommended localized standards of significance for NO_2 and CO during the construction phase. Similarly, construction activities would not produce PM_{10} and $PM_{2.5}$ emissions that exceed localized thresholds recommended by the SCAQMD. These estimates assume the use of Best Available Control

[39] South Coast Air Quality Management District, LST Methodology Appendix C-Mass Rate LST Look-up Table, revised October 2009.

Measures (BACMs) that address fugitive dust emissions of PM_{10} and $PM_{2.5}$ through SCAQMD Rule 403. This would include watering portions of the site that are disturbed during grading activities and minimizing tracking of dirt onto local streets. Therefore, construction impacts on localized air quality are considered less than significant.

Operation

Operational emissions of criteria pollutants would come from area, energy, and mobile sources. Area sources include hearths, consumer products such as household cleaners, architectural coatings for routine maintenance, and landscaping equipment. Energy sources include electricity and natural gas use for space heating and water heating. The CalEEMod program generates estimates of emissions from energy use based on the land use type and size. The Project would also produce long-term air quality impacts to the region primarily from motor vehicles that access the Project Site. The Project could add up to 80 vehicle trips to the local roadway network on a weekday at the start of operations in 2025.[40] However, the removal of the existing businesses would eliminate about 387 daily vehicle trips; as a result, the Proposed Project would reduce vehicle travel from existing conditions and result in a net reduction in regional criteria pollutant emissions.

As a result (Table 8), the Project's emissions would not exceed the SCAQMD's regional or localized significance thresholds. Therefore, the operational impacts of the Project on regional and localized air quality are considered less than significant.

Table 8
Daily Operations Emissions

Emissions Source	Daily Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area Sources	0.5	<0.1	1.2	<0.1	<0.1	<0.1
Energy Sources	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile Sources	0.3	0.2	2.0	<0.1	0.2	<0.1
Regional Total	0.8	0.2	3.3	<0.1	0.2	<0.1
Existing Total	-1.6	-1.2	-11.9	-<0.1	-0.8	-0.2
Net Regional Total	-0.8	-1.0	-6.6	-<0.1	-0.6	-0.2
Regional Significance Threshold	55	55	550	150	150	55
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Net Localized Total	0.3	<0.1	1.0	<0.1	<0.1	<0.1
Localized Significance Threshold	N/A	74	680	N/A	2	1
Exceed Threshold?	**N/A**	**No**	**No**	**N/A**	**No**	**No**

LST analyses based on one-acre site with 25-meter distances to receptors in Central Los Angeles SRA
Source: DKA Planning, 2022 based on CalEEMod 2022.1 model runs (included in the Technical Appendix). Totals reflect the summer season maximum and may not add up due to rounding.

[40] City of Los Angeles VMT Calculator Project Screening Summary, version 1.3.

c. Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. There are several sensitive receptors within 0.25 miles of the Project Site that could be exposed to air pollution from construction and operation of the Project, including, but are not limited to, the following representative sampling:

- Residences, Hyperion Avenue (east side); directly north of the Project Site.
- Residences, 2344 Griffith Park Boulevard; directly south of the Project Site.
- Lyric Preschool, 2328 Hyperion Avenue, directly south of the Project Site.
- Residences, 2340 Griffith Park Boulevard; 20 feet east of the Project Site.
- Residences, Hyperion Avenue (west side); 100 feet west of the Project Site.
- Residences, Griffith Park Boulevard (east side); 140 feet east of the Project Site.

Construction

Construction of the Project could expose sensitive receptors to substantial pollutant concentrations if maximum daily emissions of regulated pollutants generated by sources located on and/or near the Project Site exceeded the applicable LST values presented in Table 4, or if construction activities generated significant emissions of TACs that could result in carcinogenic risks or non-carcinogenic hazards exceeding the SCAQMD Air Quality Significance Thresholds of 10 excess cancers per million or non-carcinogenic Hazard Index greater than 1.0, respectively. As discussed above, the LST values were derived by the SCAQMD for the criteria pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$ to prevent the occurrence of concentrations exceeding the air quality standards at sensitive receptor locations based on proximity and construction site size.

As shown in Table 7, during construction of the Project, maximum daily localized unmitigated emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ from sources on the Project Site would remain below each of the respective LST values. Unmitigated maximum daily localized emissions would not exceed any of the localized standards for receptors that are within 25 meters of the Project's construction activities. Therefore, based on SCAQMD guidance, localized emissions of criteria pollutants would not have the potential to expose sensitive receptors to substantial concentrations that would present a public health concern.

The primary TAC that would be generated by construction activities is diesel PM, which would be released from the exhaust stacks of construction equipment. The construction emissions modeling conservatively assumed that all equipment present on the Project Site would be operating simultaneously throughout most of the day, while in all likelihood this would rarely be the case. Average daily emissions of diesel PM would be less than one pound per day throughout the course of Project construction. Therefore, the magnitude of daily diesel PM emissions, would not be sufficient to result in substantial pollutant concentrations at off-site locations nearby.

Furthermore, according to SCAQMD methodology, health risks from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 30-year period will contract cancer based on the use of standard risk-assessment methodology. The entire duration of construction activities associated with implementation of the Project is anticipated to be approximately 24 months, and the magnitude of daily diesel PM emissions will vary over this time period. No residual emissions and corresponding individual cancer risk are anticipated after construction. Because there is such a short-term exposure period, construction TAC emissions would

result in a less than significant impact. Therefore, construction of the Project would not expose sensitive receptors to substantial diesel PM concentrations, and this impact would be less than significant.

Operation

The Project Site would be redeveloped with multi-family residences, a land use that is not typically associated with TAC emissions. Typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes (e.g., chrome plating, electrical manufacturing, petroleum refinery). The Project would not include these types of potential industrial manufacturing process sources. It is expected that quantities of hazardous TACs generated on-site (e.g., cleaning solvents, paints, landscape pesticides) for the types of proposed land uses would be below thresholds warranting further study under California Accidental Release Program.

When considering potential air quality impacts under CEQA, consideration is given to the location of sensitive receptors within close proximity of land uses that emit TACs. CARB has published and adopted the Air Quality and Land Use Handbook: A Community Health Perspective, which provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities).[41] The SCAQMD adopted similar recommendations in its Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning.[42] Together, the CARB and SCAQMD guidelines recommend siting distances for both the development of sensitive land uses in proximity to TAC sources and the addition of new TAC sources in proximity to existing sensitive land uses.

The primary sources of potential air toxics associated with Project operations include DPM from delivery trucks (e.g., truck traffic on local streets and idling on adjacent streets) and to a lesser extent, facility operations (e.g., natural gas fired boilers). However, these activities, and the land uses associated with the Project, are not considered land uses that generate substantial TAC emissions. It should be noted that the SCAQMD recommends that health risk assessments (HRAs) be conducted for substantial individual sources of DPM (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units) and has provided guidance for analyzing mobile source diesel emissions.[43] Based on this guidance, the Project would not include these types of land uses and is not considered to be a substantial source of DPM warranting a refined HRA since daily truck trips to the Project Site would not exceed 100 trucks per day or more than 40 trucks with operating transport refrigeration units. In addition, the CARB-mandated airborne toxic control measures (ATCM) limits diesel-fueled commercial vehicles (delivery trucks) to idle for no more than five minutes at any given time, which would further limit diesel particulate emissions.

As the Project would not contain substantial TAC sources and is consistent with the CARB and SCAQMD guidelines, the Project would not result in the exposure of off-site sensitive receptors to carcinogenic or

41 California Air Resources Board, Air Quality and Land Use Handbook, a Community Health Perspective, April 2005.

42 South Coast Air Quality Management District, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, May 6, 2005.

43 South Coast Air Quality Management District, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, 2002.

toxic air contaminants that exceed the maximum incremental cancer risk of 10 in one million or an acute or chronic hazard index of 1.0, and potential TAC impacts would be less than significant.

The Project would generate long-term emissions on-site from area and energy sources that would generate negligible pollutant concentrations of CO, NO_2, $PM_{2.5}$, or PM_{10} at nearby sensitive receptors. While long-term operations of the Project would add traffic to local roads that produces off-site emissions, these would not result in exceedances of CO air quality standards at roadways in the area due to three key factors. First, CO hotspots are extremely rare and only occur in the presence of unusual atmospheric conditions and extremely cold conditions, neither of which applies to this Project area. Second, auto-related emissions of CO continue to decline because of advances in fuel combustion technology in the vehicle fleet. Finally, the Project would not contribute to the levels of congestion that would be needed to produce emissions concentrations needed to trigger a CO hotspot, as it would reduce 307 vehicle trips on local roadways on weekdays when the development is leased and operational in 2025.[44] This would help reduce traffic volumes on Hyperion Avenue and the reduce potential for CO hotspots.

Finally, the Project would not result in any substantial emissions of TACs during the construction or operations phase. During the construction phase, the primary air quality impacts would be associated with the combustion of diesel fuels, which produce exhaust-related particulate matter that is considered a toxic air contaminant by CARB based on chronic exposure to these emissions.[45] However, construction activities would not produce chronic, long-term exposure to diesel particulate matter. During long-term project operations, the Project does not include typical sources of acutely and chronically hazardous TACs such as industrial manufacturing processes and automotive repair facilities. As a result, the Project would not create substantial concentrations of TACs.

In addition, the SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate emissions (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions.[46] The Project would not generate a substantial number of truck trips. Based on the limited activity of TAC sources, the Project would not warrant the need for a health risk assessment associated with on-site activities. Therefore, the Project's operational impacts on local sensitive receptors would be less than significant.

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

Less Than Significant Impact. The Project would not result in activities that create objectionable odors. The Project is a housing development with ancillary retail uses that would not include any activities typically associated with unpleasant odors and local nuisances (e.g., rendering facilities, dry cleaners). SCAQMD regulations that govern nuisances (i.e., Rule 402, Nuisances) would regulate any occasional odors associated with residences. As a result, any odor impacts from the Project would be considered less than significant.

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44 City of Los Angeles VMT Calculator Project Screening Summary, version 1.3.

45 California Office of Environmental Health Hazard Assessment. Health Effects of Diesel Exhaust. www.http://oehha.ca.gov/public_info/facts/dieselfacts.html

46 South Coast Air Quality Management District, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions, December 2002.

Cumulative Impacts

While the Proposed Project would generate short- and long-term emissions during the construction and operations phases, respectively, the presence of any other development projects could produce cumulative impacts. There were no related projects identified by the City of Los Angeles within 0.25 miles of the Proposed Project. Beyond this distance (i.e., 1,320 feet), any sensitive receptors between would be negligibly impacted by any two projects, as localized pollutants substantially disperse as a function of distance, meteorology, and terrain. The U.S. EPA finds that in the context of roadway pollutants, "…concentrations generally decrease to background levels within 500-600 feet."[47] CARB also finds that air pollution levels can be significantly higher within 500 feet of freeways or other major sources.[48]

AQMP Consistency

Cumulative development is not expected to result in a significant impact in terms of conflicting with, or obstructing implementation of the 2016 AQMP. As discussed previously, growth considered to be consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Consequently, as long as growth in the Basin is within the projections for growth identified in the 2016 RTP/SCS, implementation of the AQMP will not be obstructed by such growth. In addition, as discussed previously, the population growth and reduction in jobs resulting from the Project would be consistent with the growth projections of the AQMP. Any related project would implement feasible air quality mitigation measures to reduce the criteria air pollutants, if required due to any significant emissions impacts. In addition, each related project would be evaluated for its consistency with the land use policies set forth in the AQMP. Therefore, the Project's contribution to the cumulative impact would not be cumulatively considerable and, therefore, would be less than significant.

Construction

SCAQMD recommends that any construction-related emissions and operational emissions from individual development projects that exceed the project-specific mass daily emissions thresholds identified above also be considered cumulatively considerable.[49] Individual projects that generate emissions not in excess of SCAQMD's significance thresholds would not contribute considerably to any potential cumulative impact. SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions.

As summarized in Table 7, the Proposed Project would not exceed the SCAQMD's mass emissions thresholds and would not contribute to any potential cumulative impact. If any related project was projected to exceed LST thresholds (after mitigation), it could perform dispersion modeling to confirm whether health-based air quality standards would be violated. The SCAQMD's LST thresholds recognize the influence of a receptor's proximity, setting mass emissions thresholds for PM_{10} and $PM_{2.5}$ that generally double with every doubling of distance.

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47 U.S. EPA. Near Roadway Air Pollution and Health: Frequently Asked Questions. August 2014.

48 South Coast Air Quality Management District. Guidance Document: Air Quality Issues Regarding Land Use.

49 White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions, SCAQMD Board Meeting, September 5, 2003, Agenda No. 29, Appendix D, p. D-3.

The Project would comply with regulatory requirements, including the SCAQMD Rule 403 requirements listed above. Based on SCAQMD guidance, individual construction projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment. As shown above, construction-related daily emissions at the Project Site would not exceed any of the SCAQMD's regional or localized significance thresholds. Therefore, the Project's contribution to cumulative air quality impacts would not be cumulatively considerable and, therefore, would be less than significant.

Similar to the Project, the greatest potential for TAC emissions at each related project would generally involve diesel particulate emissions associated with heavy equipment operations during grading and excavation activities. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 30-year period will contract cancer, based on the use of standard risk-assessment methodology. Construction activities are temporary and short-term events, thus construction activities at each related project would not result in a long-term substantial source of TAC emissions. Additionally, the SCAQMD CEQA guidance does not require a health risk assessment for short-term construction emissions. It is therefore not meaningful to evaluate long-term cancer impacts from construction activities, which occur over relatively short durations. As such, given the short-term nature of these activities, cumulative toxic emission impacts during construction would be less than significant.

Operation

As discussed above, the Project's operational air quality emissions and cumulative impacts would be less than significant. According to the SCAQMD, if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then the project would also result in a cumulatively considerable net increase of these criteria pollutants. As operational emissions would not exceed any of the SCAQMD's regional or localized significance thresholds, the emissions of non-attainment pollutants and precursors generated by Project operations would not be cumulatively considerable.

With respect to TAC emissions, neither the Project nor any likely related projects (which are largely residential, retail/commercial in nature), would represent a substantial source of TAC emissions, which are typically associated with large-scale industrial, manufacturing, and transportation hub facilities. The Project and related projects would be consistent with the recommended screening level siting distances for TAC sources, as set forth in CARB's Land Use Guidelines, and the Project and related projects would not result in a cumulative impact requiring further evaluation. However, any related projects could generate minimal TAC emissions related to the use of consumer products and landscape maintenance activities, among other things. Pursuant to AB 1807, which directs the CARB to identify substances as TACs and adopt airborne toxic control measures to control such substances, the SCAQMD has adopted numerous rules (primarily in Regulation XIV) that specifically address TAC emissions. These SCAQMD rules have resulted in and will continue to result in substantial Basin-wide TAC emissions reductions. As such, cumulative TAC emissions during long-term operations would be less than significant. Therefore, the Project would not result in any substantial sources of TACs that have been identified by the CARB's Land Use Guidelines, and thus, would not contribute to a cumulative impact.

TECHNICAL APPENDIX

DouglasKim+Associates,LLC

EXISTING EMISSIONS

2346 Hyperion Avenue (Existing) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	2346 Hyperion Avenue (Existing)
Lead Agency	City of Los Angeles
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	0.50
Precipitation (days)	16.8
Location	2346 Hyperion Ave, Los Angeles, CA 90027, USA
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4021
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Medical Office Building	1.80	1000sqft	0.12	1,800	0.00	—	—	—
Hardware/Paint Store	1.75	1000sqft	0.11	1,752	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.65	1.60	1.15	11.9	0.02	0.02	0.74	0.76	0.02	0.13	0.15	21.6	2,400	2,422	2.31	0.10	10.4	2,520
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.60	1.55	1.26	10.9	0.02	0.02	0.74	0.76	0.02	0.13	0.15	21.6	2,302	2,323	2.31	0.11	0.32	2,414
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.61	1.56	1.27	11.3	0.02	0.02	0.74	0.76	0.02	0.13	0.15	21.6	2,328	2,350	2.31	0.11	4.50	2,445
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.29	0.28	0.23	2.06	< 0.005	< 0.005	0.14	0.14	< 0.005	0.02	0.03	3.58	385	389	0.38	0.02	0.75	405

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	1.62	1.49	1.13	11.7	0.02	0.02	0.74	0.76	0.02	0.13	0.15	—	2,293	2,293	0.14	0.10	10.3	2,337
Area	0.03	0.11	< 0.005	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.64	0.64	< 0.005	< 0.005	—	0.65
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	102	102	0.01	< 0.005	—	102
Water	—	—	—	—	—	—	—	—	—	—	—	0.68	4.58	5.26	0.07	< 0.005	—	7.52
Waste	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	1.65	1.60	1.15	11.9	0.02	0.02	0.74	0.76	0.02	0.13	0.15	21.6	2,400	2,422	2.31	0.10	10.4	2,520
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.60	1.46	1.24	10.9	0.02	0.02	0.74	0.76	0.02	0.13	0.15	—	2,195	2,195	0.14	0.11	0.27	2,231
Area	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	102	102	0.01	< 0.005	—	102
Water	—	—	—	—	—	—	—	—	—	—	—	0.68	4.58	5.26	0.07	< 0.005	—	7.52
Waste	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	1.60	1.55	1.26	10.9	0.02	0.02	0.74	0.76	0.02	0.13	0.15	21.6	2,302	2,323	2.31	0.11	0.32	2,414
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.59	1.45	1.26	11.2	0.02	0.02	0.74	0.76	0.02	0.13	0.15	—	2,222	2,222	0.14	0.11	4.45	2,262
Area	0.02	0.10	< 0.005	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.44	0.44	< 0.005	< 0.005	—	0.45
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	102	102	0.01	< 0.005	—	102
Water	—	—	—	—	—	—	—	—	—	—	—	0.68	4.58	5.26	0.07	< 0.005	—	7.52
Waste	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	1.61	1.56	1.27	11.3	0.02	0.02	0.74	0.76	0.02	0.13	0.15	21.6	2,328	2,350	2.31	0.11	4.50	2,445
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.29	0.27	0.23	2.04	< 0.005	< 0.005	0.14	0.14	< 0.005	0.02	0.03	—	368	368	0.02	0.02	0.74	374
Area	< 0.005	0.02	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.07	0.07	< 0.005	< 0.005	—	0.07

Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Water	—	—	—	—	—	—	—	—	—	—	—	0.11	0.76	0.87	0.01	< 0.005	—	1.25
Waste	—	—	—	—	—	—	—	—	—	—	—	3.47	0.00	3.47	0.35	0.00	—	12.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.29	0.28	0.23	2.06	< 0.005	< 0.005	0.14	0.14	< 0.005	0.02	0.03	3.58	385	389	0.38	0.02	0.75	405

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	54.2	54.2	< 0.005	< 0.005	—	54.5
Hardware/Paint Store	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	87.2	87.2	0.01	< 0.005	—	87.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	54.2	54.2	< 0.005	< 0.005	—	54.5
Hardware/Paint Store	—	—	—	—	—	—	—	—	—	—	—	—	33.0	33.0	< 0.005	< 0.005	—	33.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	87.2	87.2	0.01	< 0.005	—	87.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	8.98	8.98	< 0.005	< 0.005	—	9.02
Hardware/Paint Store	—	—	—	—	—	—	—	—	—	—	—	—	5.46	5.46	< 0.005	< 0.005	—	5.49
Total	—	—	—	—	—	—	—	—	—	—	—	—	14.4	14.4	< 0.005	< 0.005	—	14.5

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.6	11.6	< 0.005	< 0.005	—	11.6
Hardware/Paint Store	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.76	2.76	< 0.005	< 0.005	—	2.77
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.4	14.4	< 0.005	< 0.005	—	14.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Medical Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.6	11.6	< 0.005	< 0.005	—	11.6
Hardware/Paint Store	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.76	2.76	< 0.005	< 0.005	—	2.77
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.4	14.4	< 0.005	< 0.005	—	14.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.92	1.92	< 0.005	< 0.005	—	1.92
Hardware/Paint Store	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.46	0.46	< 0.005	< 0.005	—	0.46
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.38	2.38	< 0.005	< 0.005	—	2.38

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.03	0.03	< 0.005	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.64	0.64	< 0.005	< 0.005	—	0.65

Total	0.03	0.11	< 0.005	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.64	0.64	< 0.005	< 0.005	—	0.65
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.07	0.07	< 0.005	< 0.005	—	0.07
Total	< 0.005	0.02	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.07	0.07	< 0.005	< 0.005	—	0.07

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	0.43	2.91	3.34	0.04	< 0.005	—	4.78
Hardware/Paint Store	—	—	—	—	—	—	—	—	—	—	—	0.25	1.67	1.92	0.03	< 0.005	—	2.75
Total	—	—	—	—	—	—	—	—	—	—	—	0.68	4.58	5.26	0.07	< 0.005	—	7.52
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	0.43	2.91	3.34	0.04	< 0.005	—	4.78
Hardware/Paint Store	—	—	—	—	—	—	—	—	—	—	—	0.25	1.67	1.92	0.03	< 0.005	—	2.75
Total	—	—	—	—	—	—	—	—	—	—	—	0.68	4.58	5.26	0.07	< 0.005	—	7.52
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	0.07	0.48	0.55	0.01	< 0.005	—	0.79
Hardware/Paint Store	—	—	—	—	—	—	—	—	—	—	—	0.04	0.28	0.32	< 0.005	< 0.005	—	0.45
Total	—	—	—	—	—	—	—	—	—	—	—	0.11	0.76	0.87	0.01	< 0.005	—	1.25

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	10.5	0.00	10.5	1.05	0.00	—	36.7
Hardware/Paint Store	—	—	—	—	—	—	—	—	—	—	—	10.5	0.00	10.5	1.05	0.00	—	36.6
Total	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	10.5	0.00	10.5	1.05	0.00	—	36.7
Hardware/Paint Store	—	—	—	—	—	—	—	—	—	—	—	10.5	0.00	10.5	1.05	0.00	—	36.6
Total	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	1.73	0.00	1.73	0.17	0.00	—	6.07
Hardware/Paint Store	—	—	—	—	—	—	—	—	—	—	—	1.73	0.00	1.73	0.17	0.00	—	6.07
Total	—	—	—	—	—	—	—	—	—	—	—	3.47	0.00	3.47	0.35	0.00	—	12.1

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Hardware/Paint Store	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Hardware/Paint Store	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Hardware/Paint Store	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	387	387	387	141,255	2,659	2,659	2,659	970,535

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	5,328	1,776	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Medical Office Building	28,672	690	0.0489	0.0069	36,165
Hardware/Paint Store	17,444	690	0.0489	0.0069	8,627

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Medical Office Building	225,865	0.00
Hardware/Paint Store	129,775	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Medical Office Building	19.4	0.00
Hardware/Paint Store	19.4	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Medical Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Medical Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Hardware/Paint Store	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Hardware/Paint Store	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	9.58	annual days of extreme heat
Extreme Precipitation	6.70	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score

Temperature and Extreme Heat	0	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	0	0	0	N/A
Wildfire	0	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	62.5
AQ-PM	78.4
AQ-DPM	56.2
Drinking Water	92.5
Lead Risk Housing	53.8
Pesticides	0.00
Toxic Releases	73.4
Traffic	57.1
Effect Indicators	—
CleanUp Sites	91.2
Groundwater	0.00
Haz Waste Facilities/Generators	91.9
Impaired Water Bodies	58.7
Solid Waste	37.6
Sensitive Population	—
Asthma	31.4
Cardio-vascular	16.5
Low Birth Weights	3.07
Socioeconomic Factor Indicators	—

Education	17.8
Housing	12.3
Linguistic	38.6
Poverty	4.72
Unemployment	77.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	86.93699474
Employed	70.02438085
Median HI	94.8671885
Education	—
Bachelor's or higher	93.6609778
High school enrollment	100
Preschool enrollment	73.37354036
Transportation	—
Auto Access	66.18760426
Active commuting	45.68202233
Social	—
2-parent households	80.67496471
Voting	58.69369947
Neighborhood	—
Alcohol availability	39.85628128
Park access	27.42204543
Retail density	91.46670089

Supermarket access	49.35198255
Tree canopy	70.11420506
Housing	—
Homeownership	56.70473502
Housing habitability	67.39381496
Low-inc homeowner severe housing cost burden	57.15385602
Low-inc renter severe housing cost burden	57.28217631
Uncrowded housing	66.9190299
Health Outcomes	—
Insured adults	55.78082895
Arthritis	48.2
Asthma ER Admissions	47.3
High Blood Pressure	26.8
Cancer (excluding skin)	17.3
Asthma	94.4
Coronary Heart Disease	51.0
Chronic Obstructive Pulmonary Disease	81.8
Diagnosed Diabetes	68.9
Life Expectancy at Birth	75.8
Cognitively Disabled	91.4
Physically Disabled	86.7
Heart Attack ER Admissions	59.9
Mental Health Not Good	91.8
Chronic Kidney Disease	64.9
Obesity	79.3
Pedestrian Injuries	48.6
Physical Health Not Good	82.3

Stroke	64.5
Health Risk Behaviors	—
Binge Drinking	43.3
Current Smoker	89.0
No Leisure Time for Physical Activity	87.1
Climate Change Exposures	—
Wildfire Risk	100.0
SLR Inundation Area	0.0
Children	58.1
Elderly	19.2
English Speaking	63.2
Foreign-born	24.3
Outdoor Workers	98.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	63.0
Traffic Density	40.9
Traffic Access	60.3
Other Indices	—
Hardship	14.0
Other Decision Support	—
2016 Voting	73.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	31.0
Healthy Places Index Score for Project Location (b)	86.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Project information

DouglasKim+Associates,LLC

FUTURE EMISSIONS

2346 Hyperion Avenue (Future) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	2346 Hyperion Avenue (Future)
Lead Agency	City of Los Angeles
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	0.50
Precipitation (days)	16.8
Location	2346 Hyperion Ave, Los Angeles, CA 90027, USA
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4021
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	15.0	Dwelling Unit	0.20	15,487	1,280	—	37.0	—
Strip Mall	0.48	1000sqft	0.03	477	0.00	—	—	—
Enclosed Parking with Elevator	19.0	Space	0.00	7,600	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.70	1.90	14.8	12.8	0.03	0.62	2.63	3.25	0.57	1.15	1.72	—	3,559	3,559	0.17	0.29	4.42	3,655
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.15	1.90	8.03	10.2	0.02	0.38	0.28	0.66	0.35	0.07	0.42	—	1,931	1,931	0.08	0.04	0.04	1,944
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.53	0.52	4.15	5.72	0.01	0.18	0.26	0.40	0.17	0.09	0.22	—	1,140	1,140	0.05	0.03	0.32	1,148
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.10	0.09	0.76	1.04	< 0.005	0.03	0.05	0.07	0.03	0.02	0.04	—	189	189	0.01	0.01	0.05	190

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2023	1.70	1.35	14.8	12.8	0.03	0.62	2.63	3.25	0.57	1.15	1.72	—	3,559	3,559	0.17	0.29	4.42	3,655
2024	0.74	0.63	5.77	8.10	0.01	0.26	0.21	0.47	0.24	0.05	0.29	—	1,599	1,599	0.07	0.03	1.04	1,611
2025	0.86	1.90	6.20	9.31	0.01	0.25	0.25	0.49	0.23	0.06	0.29	—	1,766	1,766	0.07	0.03	1.11	1,779
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.15	0.96	8.03	10.2	0.02	0.38	0.28	0.66	0.35	0.07	0.42	—	1,931	1,931	0.08	0.04	0.04	1,944
2024	0.74	0.62	5.79	7.93	0.01	0.26	0.21	0.47	0.24	0.05	0.29	—	1,589	1,589	0.07	0.03	0.03	1,599
2025	0.86	1.90	6.21	9.13	0.01	0.25	0.25	0.49	0.23	0.06	0.29	—	1,754	1,754	0.07	0.03	0.03	1,765
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.42	0.35	3.18	3.63	0.01	0.14	0.26	0.40	0.13	0.09	0.22	—	773	773	0.03	0.03	0.31	784
2024	0.53	0.45	4.15	5.72	0.01	0.18	0.15	0.33	0.17	0.04	0.20	—	1,140	1,140	0.05	0.02	0.32	1,148
2025	0.29	0.52	2.10	3.10	< 0.005	0.08	0.08	0.17	0.08	0.02	0.10	—	602	602	0.02	0.01	0.16	606
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.08	0.06	0.58	0.66	< 0.005	0.03	0.05	0.07	0.02	0.02	0.04	—	128	128	0.01	0.01	0.05	130
2024	0.10	0.08	0.76	1.04	< 0.005	0.03	0.03	0.06	0.03	0.01	0.04	—	189	189	0.01	< 0.005	0.05	190
2025	0.05	0.09	0.38	0.57	< 0.005	0.02	0.01	0.03	0.01	< 0.005	0.02	—	99.7	99.7	< 0.005	< 0.005	0.03	100

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.44	0.77	0.23	3.26	< 0.005	0.01	0.16	0.17	0.01	0.03	0.04	6.39	678	684	0.68	0.02	1.81	710
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.29	0.63	0.24	1.92	< 0.005	0.01	0.16	0.17	0.01	0.03	0.03	6.39	655	661	0.68	0.02	0.16	686

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.39	0.72	0.25	2.79	< 0.005	0.01	0.16	0.17	0.01	0.03	0.04	6.39	663	669	0.68	0.02	0.85	694
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.13	0.05	0.51	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	1.06	110	111	0.11	< 0.005	0.14	115

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.29	0.26	0.18	2.04	< 0.005	< 0.005	0.16	0.16	< 0.005	0.03	0.03	—	463	463	0.02	0.02	1.69	471
Area	0.14	0.50	0.01	1.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	3.72	3.72	< 0.005	< 0.005	—	3.73
Energy	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	204	204	0.02	< 0.005	—	205
Water	—	—	—	—	—	—	—	—	—	—	—	1.14	7.87	9.01	0.12	< 0.005	—	12.8
Waste	—	—	—	—	—	—	—	—	—	—	—	5.25	0.00	5.25	0.52	0.00	—	18.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Total	0.44	0.77	0.23	3.26	< 0.005	0.01	0.16	0.17	0.01	0.03	0.04	6.39	678	684	0.68	0.02	1.81	710
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.29	0.26	0.20	1.91	< 0.005	< 0.005	0.16	0.16	< 0.005	0.03	0.03	—	443	443	0.03	0.02	0.04	450
Area	0.00	0.37	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	204	204	0.02	< 0.005	—	205
Water	—	—	—	—	—	—	—	—	—	—	—	1.14	7.87	9.01	0.12	< 0.005	—	12.8
Waste	—	—	—	—	—	—	—	—	—	—	—	5.25	0.00	5.25	0.52	0.00	—	18.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11

Total	0.29	0.63	0.24	1.92	< 0.005	0.01	0.16	0.17	0.01	0.03	0.03	6.39	655	661	0.68	0.02	0.16	686
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.28	0.26	0.20	1.95	< 0.005	< 0.005	0.16	0.16	< 0.005	0.03	0.03	—	448	448	0.03	0.02	0.73	456
Area	0.10	0.46	0.01	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	2.55	2.55	< 0.005	< 0.005	—	2.56
Energy	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	204	204	0.02	< 0.005	—	205
Water	—	—	—	—	—	—	—	—	—	—	—	1.14	7.87	9.01	0.12	< 0.005	—	12.8
Waste	—	—	—	—	—	—	—	—	—	—	—	5.25	0.00	5.25	0.52	0.00	—	18.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Total	0.39	0.72	0.25	2.79	< 0.005	0.01	0.16	0.17	0.01	0.03	0.04	6.39	663	669	0.68	0.02	0.85	694
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.05	0.05	0.04	0.36	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	74.2	74.2	< 0.005	< 0.005	0.12	75.5
Area	0.02	0.08	< 0.005	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	0.42	0.42	< 0.005	< 0.005	—	0.42
Energy	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.7	33.7	< 0.005	< 0.005	—	33.9
Water	—	—	—	—	—	—	—	—	—	—	—	0.19	1.30	1.49	0.02	< 0.005	—	2.12
Waste	—	—	—	—	—	—	—	—	—	—	—	0.87	0.00	0.87	0.09	0.00	—	3.04
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	0.07	0.13	0.05	0.51	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	1.06	110	111	0.11	< 0.005	0.14	115

3. Construction Emissions Details

3.1. Demolition (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.65	0.54	4.99	5.91	0.01	0.21	—	0.21	0.20	—	0.20	—	852	852	0.03	0.01	—	855
Demolition	—	—	—	—	—	—	0.25	0.25	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	49.0	49.0	< 0.005	< 0.005	—	49.2
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.12	8.12	< 0.005	< 0.005	—	8.15
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.82	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	144	144	0.01	< 0.005	0.61	147
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	0.01	0.68	0.25	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	—	544	544	0.03	0.09	1.24	571

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	7.99	7.99	< 0.005	< 0.005	0.02	8.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	31.3	31.3	< 0.005	< 0.005	0.03	32.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.32	1.32	< 0.005	< 0.005	< 0.005	1.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.18	5.18	< 0.005	< 0.005	0.01	5.43

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.52	1.28	12.6	11.4	0.02	0.60	—	0.60	0.55	—	0.55	—	1,713	1,713	0.07	0.01	—	1,719
Dust From Material Movement	—	—	—	—	—	—	2.07	2.07	—	1.00	1.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.79	0.72	< 0.005	0.04	—	0.04	0.03	—	0.03	—	108	108	< 0.005	< 0.005	—	108
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.14	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	17.9	17.9	< 0.005	< 0.005	—	17.9
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.61	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	108	108	< 0.005	< 0.005	0.46	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.14	0.03	2.18	0.80	0.01	0.02	0.14	0.16	0.02	0.04	0.06	—	1,738	1,738	0.10	0.27	3.97	1,826
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.56	6.56	< 0.005	< 0.005	0.01	6.65
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.01	< 0.005	0.14	0.05	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	110	110	0.01	0.02	0.11	115
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	19.0

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69	0.58	5.93	7.00	0.01	0.28	—	0.28	0.26	—	0.26	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69	0.58	5.93	7.00	0.01	0.28	—	0.28	0.26	—	0.26	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.42	1.67	< 0.005	0.07	—	0.07	0.06	—	0.06	—	311	311	0.01	< 0.005	—	313
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.03	0.26	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	51.6	51.6	< 0.005	< 0.005	—	51.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	1.16	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	204	204	0.01	0.01	0.87	207
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	95.8	95.8	< 0.005	0.01	0.26	100
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.09	0.98	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	194	194	0.01	0.01	0.02	196
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	95.8	95.8	< 0.005	0.01	0.01	99.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.25	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	46.9	46.9	< 0.005	< 0.005	0.09	47.5
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	22.9	22.9	< 0.005	< 0.005	0.03	23.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	7.76	7.76	< 0.005	< 0.005	0.01	7.87
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.79	3.79	< 0.005	< 0.005	< 0.005	3.95
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.56	5.60	6.98	0.01	0.26	—	0.26	0.23	—	0.23	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.56	5.60	6.98	0.01	0.26	—	0.26	0.23	—	0.23	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48	0.40	4.01	5.00	0.01	0.18	—	0.18	0.17	—	0.17	—	935	935	0.04	0.01	—	938
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.07	0.73	0.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	155	155	0.01	< 0.005	—	155
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	1.07	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	200	200	0.01	0.01	0.79	203
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	94.4	94.4	< 0.005	0.01	0.26	98.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.08	0.90	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	189	189	0.01	0.01	0.02	192
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	94.5	94.5	< 0.005	0.01	0.01	98.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.06	0.68	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	138	138	0.01	0.01	0.24	139
Vendor	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	67.7	67.7	< 0.005	0.01	0.08	70.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	22.8	22.8	< 0.005	< 0.005	0.04	23.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	0.52	5.14	6.94	0.01	0.22	—	0.22	0.20	—	0.20	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.62	0.52	5.14	6.94	0.01	0.22	—	0.22	0.20	—	0.20	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.82	2.46	< 0.005	0.08	—	0.08	0.07	—	0.07	—	462	462	0.02	< 0.005	—	464
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.33	0.45	< 0.005	0.01	—	0.01	0.01	—	0.01	—	76.5	76.5	< 0.005	< 0.005	—	76.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.98	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	196	196	0.01	0.01	0.72	198
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	92.9	92.9	< 0.005	0.01	0.25	97.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.83	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	185	185	0.01	0.01	0.02	188
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	92.9	92.9	< 0.005	0.01	0.01	96.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.03	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	66.6	66.6	< 0.005	< 0.005	0.11	67.5
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	32.9	32.9	< 0.005	< 0.005	0.04	34.4

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	11.0	11.0	< 0.005	< 0.005	0.02	11.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.45	5.45	< 0.005	< 0.005	0.01	5.69
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	1.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	1.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.04	0.03	0.21	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.5	31.5	< 0.005	< 0.005	—	31.6
Architectural Coatings	—	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.21	5.21	< 0.005	< 0.005	—	5.23
Architectural Coatings	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.20	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	39.1	39.1	< 0.005	< 0.005	0.14	39.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.17	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	37.1	37.1	< 0.005	< 0.005	< 0.005	37.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	8.87	8.87	< 0.005	< 0.005	0.01	8.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.47	1.47	< 0.005	< 0.005	< 0.005	1.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Trenching (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	0.29	1.86	1.77	< 0.005	0.09	—	0.09	0.09	—	0.09	—	269	269	0.01	< 0.005	—	270
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	0.29	1.86	1.77	< 0.005	0.09	—	0.09	0.09	—	0.09	—	269	269	0.01	< 0.005	—	270
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.44	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	63.3	63.3	< 0.005	< 0.005	—	63.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.08	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.5	10.5	< 0.005	< 0.005	—	10.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.41	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	72.2	72.2	< 0.005	< 0.005	0.31	73.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.35	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	68.4	68.4	< 0.005	< 0.005	0.01	69.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	16.4	16.4	< 0.005	< 0.005	0.03	16.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.71	2.71	< 0.005	< 0.005	0.01	2.75
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	93.2	93.2	0.01	< 0.005	—	93.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	8.98	8.98	< 0.005	< 0.005	—	9.03
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	53.1	53.1	< 0.005	< 0.005	—	53.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	155	155	0.01	< 0.005	—	156
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	93.2	93.2	0.01	< 0.005	—	93.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	8.98	8.98	< 0.005	< 0.005	—	9.03
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	53.1	53.1	< 0.005	< 0.005	—	53.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	155	155	0.01	< 0.005	—	156
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartme Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	15.4	15.4	< 0.005	< 0.005	—	15.5
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	1.49	1.49	< 0.005	< 0.005	—	1.49
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	8.79	8.79	< 0.005	< 0.005	—	8.83
Total	—	—	—	—	—	—	—	—	—	—	—	—	25.7	25.7	< 0.005	< 0.005	—	25.8

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	47.7	47.7	< 0.005	< 0.005	—	47.8
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.75	0.75	< 0.005	< 0.005	—	0.75
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	48.5	48.5	< 0.005	< 0.005	—	48.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	47.7	47.7	< 0.005	< 0.005	—	47.8
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.75	0.75	< 0.005	< 0.005	—	0.75

Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	48.5	48.5	< 0.005	< 0.005	—	48.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.90	7.90	< 0.005	< 0.005	—	7.92
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.02	8.02	< 0.005	< 0.005	—	8.05

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipme	0.14	0.13	0.01	1.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.72	3.72	< 0.005	< 0.005	—	3.73
Total	0.14	0.50	0.01	1.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	3.72	3.72	< 0.005	< 0.005	—	3.73
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	0.37	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	0.02	< 0.005	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.42	0.42	< 0.005	< 0.005	—	0.42
Total	0.02	0.08	< 0.005	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	0.42	0.42	< 0.005	< 0.005	—	0.42

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.07	7.42	8.49	0.11	< 0.005	—	12.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.07	0.45	0.52	0.01	< 0.005	—	0.75
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.14	7.87	9.01	0.12	< 0.005	—	12.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.07	7.42	8.49	0.11	< 0.005	—	12.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.07	0.45	0.52	0.01	< 0.005	—	0.75
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.14	7.87	9.01	0.12	< 0.005	—	12.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.18	1.23	1.41	0.02	< 0.005	—	2.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.01	0.08	0.09	< 0.005	< 0.005	—	0.12
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	0.19	1.30	1.49	0.02	< 0.005	—	2.12

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	4.98	0.00	4.98	0.50	0.00	—	17.4
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.27	0.00	0.27	0.03	0.00	—	0.94
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	5.25	0.00	5.25	0.52	0.00	—	18.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	4.98	0.00	4.98	0.50	0.00	—	17.4
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.27	0.00	0.27	0.03	0.00	—	0.94
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	5.25	0.00	5.25	0.52	0.00	—	18.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartme Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.82	0.00	0.82	0.08	0.00	—	2.89
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.04	0.00	0.04	< 0.005	0.00	—	0.16
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.87	0.00	0.87	0.09	0.00	—	3.04

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	7/1/2023	7/31/2023	5.00	21.0	—
Grading	Grading	8/1/2023	8/31/2023	5.00	23.0	—
Building Construction	Building Construction	9/1/2023	6/30/2025	5.00	477	—
Architectural Coating	Architectural Coating	3/1/2025	6/30/2025	5.00	86.0	—
Trenching	Trenching	9/1/2023	12/31/2023	5.00	86.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	1.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40

Grading	Tractors/Loaders/Backh	Diesel	Average	1.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Dumpers/Tenders	Diesel	Average	1.00	8.00	16.0	0.38
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	10.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	6.10	25.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	7.50	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	19.5	25.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	14.1	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	2.93	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

Architectural Coating	—	—	—	—
Architectural Coating	Worker	2.83	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	5.00	18.5	LDA,LDT1,LDT2
Trenching	Vendor	—	10.2	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	31,361	10,454	716	239	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	408	—
Grading	—	2,250	0.23	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Enclosed Parking with Elevator	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	690	0.05	0.01
2024	0.00	690	0.05	0.01
2025	0.00	690	0.05	0.01

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	80.0	80.0	80.0	29,200	573	573	573	209,145

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	15
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
31361.175	10,454	716	239	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	49,252	690	0.0489	0.0069	148,880
Strip Mall	4,749	690	0.0489	0.0069	2,349
Enclosed Parking with Elevator	28,055	690	0.0489	0.0069	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	559,107	21,941
Strip Mall	35,333	0.00
Enclosed Parking with Elevator	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	3.75	0.00
Strip Mall	0.50	0.00
Enclosed Parking with Elevator	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	9.58	annual days of extreme heat
Extreme Precipitation	6.70	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	0	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	0	0	0	N/A
Wildfire	0	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A

Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	62.5
AQ-PM	78.4
AQ-DPM	56.2
Drinking Water	92.5
Lead Risk Housing	53.8
Pesticides	0.00
Toxic Releases	73.4
Traffic	57.1
Effect Indicators	—

CleanUp Sites	91.2
Groundwater	0.00
Haz Waste Facilities/Generators	91.9
Impaired Water Bodies	58.7
Solid Waste	37.6
Sensitive Population	—
Asthma	31.4
Cardio-vascular	16.5
Low Birth Weights	3.07
Socioeconomic Factor Indicators	—
Education	17.8
Housing	12.3
Linguistic	38.6
Poverty	4.72
Unemployment	77.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	86.93699474
Employed	70.02438085
Median HI	94.8671885
Education	—
Bachelor's or higher	93.6609778
High school enrollment	100
Preschool enrollment	73.37354036

Transportation	—
Auto Access	66.18760426
Active commuting	45.68202233
Social	—
2-parent households	80.67496471
Voting	58.69369947
Neighborhood	—
Alcohol availability	39.85628128
Park access	27.42204543
Retail density	91.46670089
Supermarket access	49.35198255
Tree canopy	70.11420506
Housing	—
Homeownership	56.70473502
Housing habitability	67.39381496
Low-inc homeowner severe housing cost burden	57.15385602
Low-inc renter severe housing cost burden	57.28217631
Uncrowded housing	66.9190299
Health Outcomes	—
Insured adults	55.78082895
Arthritis	48.2
Asthma ER Admissions	47.3
High Blood Pressure	26.8
Cancer (excluding skin)	17.3
Asthma	94.4
Coronary Heart Disease	51.0
Chronic Obstructive Pulmonary Disease	81.8

Diagnosed Diabetes	68.9
Life Expectancy at Birth	75.8
Cognitively Disabled	91.4
Physically Disabled	86.7
Heart Attack ER Admissions	59.9
Mental Health Not Good	91.8
Chronic Kidney Disease	64.9
Obesity	79.3
Pedestrian Injuries	48.6
Physical Health Not Good	82.3
Stroke	64.5
Health Risk Behaviors	—
Binge Drinking	43.3
Current Smoker	89.0
No Leisure Time for Physical Activity	87.1
Climate Change Exposures	—
Wildfire Risk	100.0
SLR Inundation Area	0.0
Children	58.1
Elderly	19.2
English Speaking	63.2
Foreign-born	24.3
Outdoor Workers	98.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	63.0
Traffic Density	40.9
Traffic Access	60.3

Other Indices	—
Hardship	14.0
Other Decision Support	—
2016 Voting	73.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	31.0
Healthy Places Index Score for Project Location (b)	86.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Project plans
Construction: Construction Phases	Consultant assumptions
Construction: Off-Road Equipment	.

Construction: Dust From Material Movement	Includes swell factor for topsoil and dry clay
Construction: Trips and VMT	Assumes 10 CY haul truck capacity; 25-mile distance to landfill
Operations: Hearths	Project plans

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MATES V TOXIC EMISSIONS OVERVIEW

About Air Toxics Cancer Risk

Information about community profile statistics
Information about emission sources
Download PDF

Residential Air Toxics Cancer Risk at MATES Monitoring Sites

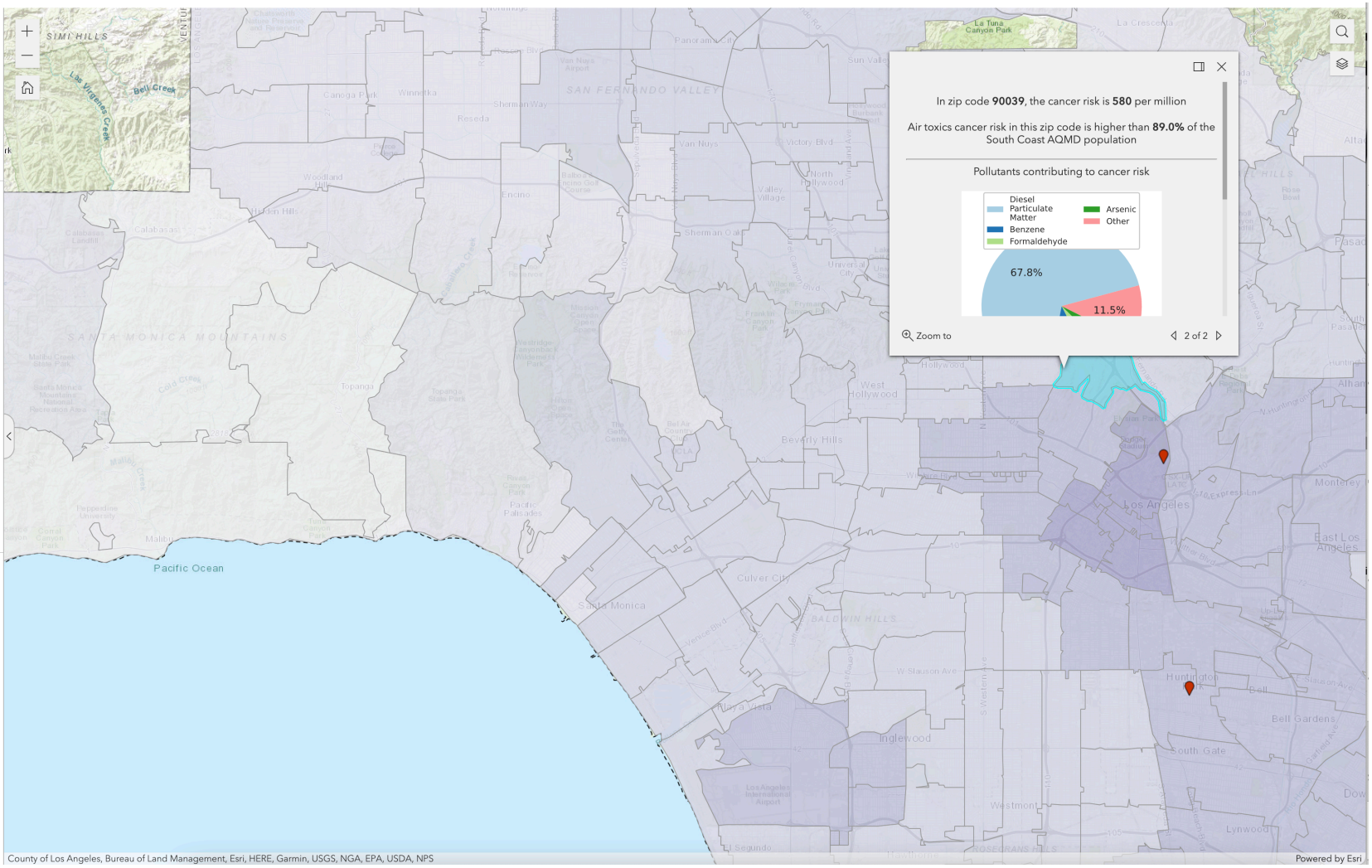
Residential Air Toxics Cancer Risk Calculated from Model Data

Cancer Risk [per million]

- 1601 - 4800
- 1451 - 1600
- 1301 - 1450
- 1151 - 1300
- 1001 - 1150
- 851 - 1000
- 701 - 850
- 551 - 700
- 401 - 550
- 251 - 400
- 101 - 250
- 0 - 100

South Coast AQMD Boundary

The air toxics cancer risk data presented in the MATES Data Visualization is calculated using a population-weighted average.



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CALENVIROSCREEN 4.0 OUTPUT


CalEnviroScreen 4.0
from OEHHA
SB 535 Disadvantaged Communities Map
CalEnviroScreen Website
Indicator Maps
About
The CalEnviroScreen 4.0 tool shows cumulative impacts in California communities by census tract.
How to use this map
• Use your mouse or touchpad to pan around.
• Zoom in/out with a mouse wheel or the +/- icons.
• Search by location or census tract number with the search icon.
• Click on a census tract to view additional information in the pop-up window.
• Dock the pop-up window to the side of the screen by clicking the dock icon.
• Export a map view that includes the legend and popup using the screenshot widget.
• Learn more about CalEnviroScreen 4.0 and how this map was created here
Overall Percentile
CalEnviroScreen 4.0 Results
>90 - 100 (Highest Scores)
>80 - 90
>70 - 80
>60 - 70
>50 - 60
>40 - 50
>30 - 40
>20 - 30
>10 - 20
0 - 10 (Lowest Scores)
CalEnviroScreen 4.0 High Pollution, Low Population
Census Tract: 6037195100 (Population: 4,978)
The results for each indicator range from 0-100 and represent the percentile ranking of census tract 6037195100 relative to other census tracts.
Overall Percentiles
CalEnviroScreen 4.0 Percentile 31
Pollution Burden Percentile 88
Population Characteristics Percentile 12
Exposures
Ozone 63
Particulate Matter 2.5 78
Diesel Particulate Matter 56
Toxic Releases 73
Traffic 57
Zoom to
2 of 2
6037195202
6037195100
Find address or place
Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS | Header, P1, P2, P3, P4, H1, and P5 Tables from U.S. Census Bureau's 2020 Public Law 94-171 files.
Powered by Esri

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GRADING ANALYSIS

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SOIL TRANSPORT WITH SHRINK AND SWELL FACTORS

	CY	% Swell	Adjusted CY	Truck Capacity (CY)	Truck Trips
Topsoil	104	56%	162	10	32
Clay (Dry)	1,390	50%	2,085	10	417
Clay (Damp)		67%	-	10	-
Earth, loam (Dry)		50%	-	10	-
Earth, loam (Damp)		43%	-	10	-
Dry sand		11%	-	10	-
TOTAL	1,494		2,247		449

Note: Topsoil considered the top ten inches of soil (Wikipedia)
Note: Soil below topsoil assumed to be dry clay; Source: Lyngso website, https://www.lyngsogarden.com/community-resources/tips-on-modifying-your-california-soil-with-amendments/
Source: US Department of Transportation Determination of Excavation and Embankment Volumes; https://highways.dot.gov/federal-lands/pddm/dpg/earthwork-design

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DEMOLITION ANALYSIS

DouglasKim+Associates,LLC

CONSTRUCTION BUILDING DEBRIS

Materials	Total SF	Height	Cubic Yards	Pounds per Cub	Tons	Truck Capacity (CY)	Truck Trips	Source
Construction and Debris	0	0	-	484	-	10	-	Florida Department of Environmental Protection A Fact Sheet for C&D Debris Facility Operators
General Building	3,552	12	521	1,000	260	10	104	*Federal Emergency Management Agency, Debris Estimating Field Guide (FEMA 329), September 2010. General Building Formula*
Single Family Residence	-	12	-	1,000	-	10	-	Federal Emergency Management Agency. Debris Estimating Field Guide (FEMA 329), September 2010. Single Family Residence Formula, assumes 1 story, Medium vegetative cover multiplier (1.3)
Multi-Family Residence		12	-	1,000	-	10	-	
Mobile Home				1,000	-	10	-	
Mixed Debris			-	480	-	10	-	Florida Department of Environmental Protection A Fact Sheet for C&D Debris Facility Operators
Vegetative Debris (Hardwoods)			-	500	-	10	-	
Vegetative Debris (Softwoods)			-	333	-	10	-	
Asphalt or concrete (Constructior	6,650	0.5	123	2,400	148	10	25	
TOTAL			644		408		129	