Appendix A

UCLA Health Sports Medicine Institute
5210 Pacific Concourse Tenant Improvements Project
Air Quality and Greenhouse Gas Emissions Technical Report
Eyestone Environmental, LLC

AIR QUALITY AND GREENHOUSE GAS EMISSIONS TECHNICAL REPORT

UCLA Health Sports Medicine Institute Project
(5210 Pacific Concourse Tenant Improvements)
Los Angeles, CA

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AIR QUALITY AND GREENHOUSE GAS TECHNICAL REPORT FOR THE UCLA HEALTH SPORTS MEDICINE INSTITUTE PROJECT (5210 PACIFIC CONCOURSE TENANT IMPROVEMENTS)

I. Introduction

In accordance with the California Environmental Quality Act (CEQA), this Air Quality and Greenhouse Gas (GHG) Emissions Technical Report (Technical Report) evaluates potential air quality and GHG emissions impacts associated with construction and operation of the UCLA Health Sports Medicine Institute Project (5210 Pacific Concourse Drive Tenant Improvements) (the Project).

The Project is located at 5210 Pacific Concourse Drive in unincorporated Los Angeles County. UCLA Health proposes the adaptive reuse of an existing approximately 170,000-gross-square-foot (gsf) two-story life sciences building on the 9.2-acre Project Site. The proposed Project would create a new Sports Medicine Institute, relocate an off-campus UCLA Clinical Microbiology Laboratory, and include a community fill pharmacy and specialty pharmacy. In addition to the adaptive reuse of the existing building to accommodate these uses, the proposed Project includes improvements to the building mechanical systems, accessibility improvements, safety and security upgrades, utility infrastructure upgrades, and minor modifications to the existing landscaping and surface parking. The proposed renovations would address both the immediate and future needs of various units within UCLA Health, including meeting the rising demand for orthopedic and pharmacy services. The Project is expected to be completed in 2028.

II. Project Location and Existing Uses

The Project Site is located less than one mile from Los Angeles International Airport and near the interchange of the I-405 and I-105 freeways. The area surrounding the Project Site is primarily developed with residential uses, commercial and light industrial uses. The Project Site includes the existing life sciences building and associated surface parking and infrastructure. Built in 2002 and partially renovated in 2020, the existing tilt-up concrete building includes two floor plates of approximately 85,000 gsf each.

III. Project Description

The Project will convert the existing two-story laboratory and office building into an orthopedic outpatient treatment facility, with associated outpatient diagnostic and treatment

services and related functions. In summary, the Project will provide an approximately 71,300-square-foot UCLA Health Sports Medicine Institute, an approximately 35,850-square-foot UCLA Health Clinical Microbiology Laboratory (relocated from Brentwood), and a 38,400-square-foot community fill pharmacy and specialty pharmacy. The remaining areas of the building (approximately 24,450 square feet) will include support and amenity spaces.

Interior demolition and renovation would be performed to adapt the building for the proposed uses. Utilities, including the heating, ventilation and air conditioning (HVAC) system, boilers and water heaters would be upgraded. A limited number of existing parking spaces would be removed to allow for site circulation improvements and the installation of new exterior equipment, including trash compactors and emergency generators.

The Project has been designed to comply with the University of California (UC) Policy on Sustainable Practices which establishes goals for green building, clean energy, transportation, climate protection, facilities operations, zero waste, procurement, food service, and water systems, among other sustainable practices. A minimum Certified rating pursuant to the Leadership in Energy and Environmental Design (LEED™)[1] for Interior Design and Construction (ID+C) has been established for the proposed Project, which qualifies as a minor renovation of an existing building pursuant to the UC Policy on Sustainable Practices; however, consistent with UCLA practices, the Project will strive for a Gold rating. To achieve the LEED rating, a full range of sustainability practices related to building design and operations would be included in the Project, such as those set forth in UCLA Health's Practice Greenhealth,[2] the Buy Clean California Act, and compliance with the campus's environmental standards for programming and design. More specifically, the proposed Project incorporates a series of green building strategies as well as transportation demand management (TDM) measures including, but not limited to, the following:

- Adaptive reuse of an existing building on a developed site that is connected to existing utilities, public services, transit and alternative transportation, and other urban infrastructure;
- Striving to achieve Practice Greenhealth's award "Greenhealth Partner for Change;"
- Committing to the use of 100 percent green (renewable) electricity through SCE's participation in the Clean Power Alliance;

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[1] *LEED is a green building rating system that contains prerequisites and credits in five areas: (1) environmentally sensitive site planning; (2) water conservation; (3) energy efficiency; (4) conservation of materials and resources; and (5) indoor air quality.*

[2] *Practice Greenhealth is the leading membership and networking organization for sustainable healthcare, delivering environmental solutions to hospitals and health systems across the United States. UCLA Health is a member of Practice Greenhealth.*

- Encouraging alternative transportation by providing pedestrian access improvements, bicycle racks, subsidized transit passes, and carpool/vanpool assistance, which are further outlined below;

- Supporting zero-emissions vehicle (ZEV) commuting by providing 24 EV chargers for general use, plus four EV chargers for UCLA Health fleet vehicles;

- Selecting construction materials in accordance with the Buy Clean California Act (AB 262, codified in California Public Contract Code [PCC] Section 3500 et seq.) in an effort to reduce greenhouse gas emissions associated with the manufacture and transport of such materials;

- Diverting a minimum of 65 percent of construction waste from landfills in order to reduce solid waste disposal.

- Using low, ultra-low, and zero volatile organic compound (VOC)-emitting adhesives, sealants, paints, coatings, and carpets in order to reduce air quality emissions, at minimum consistent with South Coast Air Quality Management District (SCAQMD) Rule 1113;

- Selecting energy- and water-efficient equipment and fixtures;

- Providing on-site solid waste compaction and sterilization of biohazardous waste, both of which reduce the transportation and emissions associated with waste disposal; and

- Implementing a reusable sharps container program which reduces waste generation associated with disposable sharps containers.

More specifically with respect to sustainable transportation, the following would be implemented to encourage the use of alternatives modes of transportation:

- **Pedestrian Access Improvements.** Given the roadway connectivity in the Project area, the walking distance between the Metro C Line Aviation/Imperial Station and the Project Site using public rights-of-way is approximately 0.9 mile. However, as part of the Covenants, Conditions and Restrictions (CC&Rs) for the Pacific Concourse development, a pedestrian gate located behind 5230 Pacific Concourse Drive (at W. 116th Street and Isis Avenue) is kept unlocked during business hours, with a code provided for occupants who require after-hours access. To encourage the use of transit and facilitate walking and biking between the Metro C Line Aviation/Imperial Station and the Project Site, proposed Project employees would be provided access via this gate. This access would provide a more direct pedestrian path and reduce the walking distance from the station to the Project Site to 0.5 mile.
- **Subsidized Transit Passes.** Employees would be eligible for UCLA Transportation's Bruin Commuter Transit Benefit program, which offers one free quarterly transit pass and subsequent discounted passes for seven transit agencies, including Los Angeles Metro bus and rail lines.

- **Carpooling.** The UCLA Transportation Trip Planner would assist employees in forming carpools based on similar commute patterns (travel areas and working hours). Carpool groups would be able to apply for a Staff Carpool Permit to reduce parking costs at the Project Site.
- **Vanpooling.** Vanpooling services to/from locations potentially including Palmdale and Santa Clarita, etc. would be offered if there is sufficient demand from proposed Project employees. Consistent with current vanpools for UCLA Health, the vanpool service would be independently operated by Enterprise.

- **Bicycle Parking.** To encourage bicycle travel, eight short-term bicycle parking spaces would also be provided on-site.

Construction of the Project is anticipated to commence in 2026 and to be complete in 2028.

IV. Scope of Work

The following analysis addresses the air emissions generated by construction and operation of the Project. The analysis also addresses the consistency of the Project with the current South Coast Air Quality Management District (SCAQMD)'s Air Quality Management Plan (AQMP). 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. The following analysis also provides a discussion of global climate change, an evaluation of the Project's consistency with plans adopted for the reduction or mitigation of greenhouse gas (GHG) emissions, an inventory of the GHG emissions that would result from the Project, and an analysis of the potential impact of these GHGs.

Calculation worksheets, assumptions, and model outputs for both the air quality and GHG analyses are included in Appendix AQ-3.

V. Environmental Impact Analysis

A. Regulatory Framework

There are several plans, regulations, and programs that include policies, requirements, and guidelines regarding air quality at the federal, state, regional, and local levels. These plans, guidelines, and laws include the following:

- Federal Clean Air Act
  - National Ambient Air Quality Standards

- California Clean Air Act
  - California Ambient Air Quality Standards
- California Code of Regulations
- California Scoping Plan for Achieving Carbon Neutrality
- State Programs for Toxic Air Contaminants
- State Diesel Risk Reduction Program
- South Coast Air Quality Management District Plans
  - Air Quality Management Plan
  - Air Quality Guidance Documents
  - Rules and Regulations
- Southern California Association of Governments Regional Transportation Plan/ Sustainable Communities Strategy[3]
- University of California (UC) Policy on Sustainable Practices

These regulations are discussed in Appendix AQ-1 and the most relevant aspects are summarized in the analyses below.

Additionally, in conjunction with certification of the UCLA Long Range Development Plan Amendment (2017) and Student Housing Projects Final Subsequent Environmental Impact Report (LRDP Final SEIR) (State Clearinghouse No. 2017051024) and approval of the LRDP Amendment (2017) and Student Housing Projects, The Regents of the University of California adopted a Mitigation Monitoring and Reporting Program (LRDP MMRP). The LRDP MMRP ensures that mitigation measures (MMs) that are the responsibility of the University of California are implemented in a timely manner. Although the Project Site is not located within the UCLA campus which is subject to the LRDP, this report identifies applicable programs, practices, and procedures (PPs) and mitigation measures (MMs) from the LRDP MMRP related to potential air quality and greenhouse gas (GHG) impacts resulting from the Project. As a standard practice, relevant LRDP PPs and MMs are implemented for all UCLA development projects, including those located off campus.

The following adopted PPs and MMs from the LRDP MMRP have been incorporated into the Project and are assumed in the analysis presented in this report. Changes in the text

[3] *Both the 2020-2045 and 2024-2050 versions are addressed herein.*

from the LRDP MMRP are signified by strikeouts (~~strikeouts~~) where non-applicable text has been removed; and by bold and underline (**bold and underline**) where text has been added. Changes have been made so the stated requirement better applies to the Project, which is located off campus and to ensure implementation of the mitigation.

PP 4.2-2(a): The ~~campus~~ **University** shall continue to implement dust control measures consistent with SCAQMD Rule 403—Fugitive Dust during the construction phases of new project development. The following actions are currently recommended to implement Rule 403 and may be quantified in the CalEEMod program:

- Minimize land disturbance to the extent feasible.
- Apply water and/or approved nontoxic chemical soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas that have been inactive for 10 or more days).
- Apply water three times daily to all active disturbed areas.
- Replace ground cover in disturbed areas as quickly as possible.
- Enclose, cover, water twice daily, or apply approved chemical soil binders to exposed piles with 5 percent or greater silt content.
- Water active grading sites at least twice daily.
- Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour over a 30-minute period.
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code.
- Sweep streets at the end of the day if visible soil material is carried over to adjacent roads.
- Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip.
- Apply water three times daily or chemical soil stabilizers according to manufacturers' specifications to all unpaved parking or staging areas or unpaved road surfaces.
- ~~Post and enforce traffic speed limits of 15 miles per hour or less on all unpaved roads.~~

PP 4.2-2(b): The ~~campus~~ **University** shall continue to require by contract specifications that construction equipment engines will be maintained

in good condition and in proper tune per manufacturer's specification for the duration of construction.

PP 4.2-2(c): The ~~campus~~ **University** shall continue to require by contract specifications that construction operations rely on the ~~campus'~~ existing electricity infrastructure rather than electrical generators powered by internal combustion engines to the extent feasible.

PP 4.2-2(d): The ~~campus~~ **University** shall purchase and apply ultra-low VOC architectural coatings with reactivity-adjusted VOC content that meets or exceeds the requirements of SCAQMD Rule 1113, thereby ensuring the limitation of VOCs during construction.

MM 4.2-2(a): The ~~campus~~ **University** shall require by contract specifications that construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than five minutes.

MM 4.2-2(b): The ~~campus~~ **University** shall encourage contractors to utilize alternative fuel construction equipment (i.e., compressed natural gas, liquid petroleum gas, and low-NOx fuel) to the extent that the equipment is reasonably commercially available and cost effective.

MM 4.2-2(c): The ~~campus~~ **University** shall require by contract specifications that construction-related equipment used on site and for on-road export of soil meet **a minimum of** USEPA Tier III certification requirements, as feasible.

PP 4.15-1: The ~~campus~~ **University** shall continue to implement provisions of the UC Policy on Sustainability Practices including, but not limited to: Green Building Design; Clean Energy Standards; Climate Protection Practices; Sustainable Transportation Practices; Sustainable Operations; Recycling and Waste Management; Environmentally Preferable Purchasing Practices; and provisions of the applicable UCLA Climate Action Plan.

In addition, the following LRDP PPs have been incorporated into the Project, as applicable, and require that UCLA continue to implement energy and water conservation measures and reduce solid waste generation which would, in turn, reduce associated GHG emissions.

PP 4.14-2(a): New facilities and renovations ~~(except for patient care facilities in the Medical Center)~~ shall be equipped with low-flow showers, toilets, and urinals.

PP 4.14-2(b): Measures to reduce landscaping irrigation needs shall be used, such as automatic timing systems to apply irrigation water during times of the day when evaporation rates are low, installing drip irrigation systems, using mulch for landscaping, subscribing to the California Irrigation Management Information System Network for current

information on weather and evaporation rates, and incorporating drought-resistant plants as appropriate.

PP 4.14-2(c): The ~~campus~~ **University** shall promptly detect and repair leaks in water and irrigation pipes.

PP 4.14-2(d): The ~~campus~~ **University** shall minimize the use of water to clean sidewalks, walkways, driveways and parking areas.

PP 4.4-2(g): The ~~campus~~ **University** shall educate the ~~campus~~ **Project** community on the importance of water conservation measures.

PP 4.14-3: The ~~campus~~ **University** shall continue to implement a solid waste reduction and recycling program designed to limit the total quantity of ~~campus~~ **Project** solid waste that is disposed of in landfills ~~during the LRDP horizon~~.

PP 4.14-9: The ~~campus~~ **University** shall continue to implement energy conservation measures (such as energy-efficient lighting and microprocessor-controlled HVAC equipment) to reduce the demand for electricity and natural gas. The energy conservation measures may be subject to modification as new technologies are developed or if current technologies become obsolete through replacement.

PP 4.15-1: The ~~campus~~ **University** shall continue to implement provisions of the UC Policy on Sustainability Practices including, but not limited to: Green Building Design; Clean Energy Standards; Climate Protection Practices; Sustainable Transportation Practices; Sustainable Operations; Recycling and Waste Management; Environmentally Preferable Purchasing Practices; and provisions of the applicable UCLA Climate Action Plan.

B. Air Quality Methodology

This air quality analysis focuses on the potential change in the air quality environment due to implementation of the Project. Air pollutant emissions would result from both construction and operation of the Project. Specific methodologies used to evaluate these emissions are discussed below.

The SCAQMD is primarily responsible for planning, implementing, and enforcing air quality standards for the South Coast Air Basin in which the Project is located. The SCAQMD published the CEQA Air Quality Handbook (approved by the SCAQMD's Governing Board in 1993) to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The CEQA Air Quality Handbook provides standards, methodologies, and procedures for conducting air quality analyses. However, the

SCAQMD is currently in the process of replacing the CEQA Air Quality Handbook with the *Air Quality Analysis Guidance Handbook*.

In order to assist the CEQA practitioner in conducting an air quality analysis in the interim while the replacement *Air Quality Analysis Guidance Handbook* is being prepared, supplemental guidance/information is provided on the SCAQMD website and includes: (1) Emission Factor (EMFAC) on-road vehicle emission factors; (2) background CO concentrations; (3) localized significance thresholds; (4) mitigation measures and control efficiencies; (5) mobile source toxics analysis; (6) off-road mobile source emission factors; (7) $PM_{2.5}$ significance thresholds and calculation methodology; and (8) updated SCAQMD Air Quality Significance Thresholds.[4] SCAQMD also recommends using approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod). These recommendations were followed in the preparation of this analysis.

(1) Construction

Construction of the Project has the potential to generate temporary air pollutant emissions through the use of heavy-duty construction equipment, such as backhoes and forklifts, and through vehicle trips generated from workers and haul and delivery trucks traveling to and from the Project Site. In addition, fugitive dust emissions could result from demolition and limited soil-handling activities. Mobile source emissions could result from the use of construction equipment. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

(a) Regional Emissions

The Project's "regional" emissions refer to emissions that will be evaluated based on regional significance thresholds established by SCAQMD. SCAQMD provides regional significance thresholds for the following criteria pollutants: Volatile Organic Compounds (VOC), Nitrogen Oxides (NO_X), Carbon Monoxide (CO), Sulfur Dioxide (SO_X), particulate matter with a diameter of 10 microns or less (PM_{10}) and particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$). Daily regional emissions during construction are estimated by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying mobile source and fugitive dust emissions factors. The emissions are estimated using CalEEMod (Version 2022.1) software, an emissions inventory software program recommended by SCAQMD. The CalEEMod model

[4] *SCAQMD, Air Quality Analysis Handbook, www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook, accessed July 21, 2025.*

was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with SCAQMD and received input from other California air districts. It is currently used by numerous lead agencies in the Los Angeles area and within the State for quantifying the emissions associated with development projects undergoing environmental review.

CalEEMod is based on outputs from the Off-road Emissions Inventory Program model[5] (OFFROAD) and EMission FACtor model[6] (EMFAC), which are emissions estimation models developed by the California Air Resources Board (CARB), and is used to calculate emissions from construction activities, including off- and on-road vehicles. CalEEMod also relies upon known emissions data associated with certain activities or equipment (often referred to as "default" data, values or factors) that can be used if site-specific information is not available. CalEEMod contains default values to use in each specific local air district region. Appropriate statewide default values can be used, if regional default values are not defined. Where relevant data was available, the input values used in this analysis were adjusted to be Project-specific based on equipment types and the anticipated construction schedule. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Construction tasks were aggregated to reflect overlapping tasks and identify the reasonably expected maximum construction emissions occurring over the course of Project construction. To be conservative, this analysis evaluates the Project's air quality impacts during construction based on reasonably expected maximum daily construction emissions even though such emissions would not occur throughout the entire construction phase (i.e., peak day construction activity and emissions are assumed to occur every day). Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in Appendix AQ-3.

(b) Localized Emissions

The localized effects from the on-site portion of daily construction emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to SCAQMD's LST methodology, which uses on-site mass emissions rate look-up tables and Project-specific modeling, where appropriate, to assess whether the Project's local emissions would exceed SCAQMD's significance thresholds.[7] SCAQMD provides LSTs applicable to the following criteria pollutants: NO_X, CO, PM_{10}, and $PM_{2.5}$.[8] SCAQMD does not provide a LST for SO_2, Pb, or H_2S since land use development projects typically result in

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[5] *CARB, 2021 Off-road Diesel Emission Factors, https://arb.ca.gov/emfac/offroad/, accessed January 21, 2025.*

[6] *CARB, EMFAC 2021, https://arb.ca.gov/emfac/, accessed January 21, 2025.*

[7] *SCAQMD, LST Methodology Appendix C-Mass Rate LST Look-Up Table, October 2009.*

[8] *SCAQMD, LST Methodology, June 2003, revised July 2008, p. 1-4.*

negligible construction and long-term operation emissions of these pollutants. 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. SCAQMD developed mass rate look-up tables for each source receptor area in order 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 5 acres.

(2) Operation

(a) Regional Emissions

Analysis of the Project's impact on regional air quality during long-term Project operations (i.e., after construction is complete) takes into consideration four types of sources: (1) area, (2) energy, (3) mobile, and (4) stationary. Area source emissions are generated by, among other things, landscape equipment and the use of consumer products. Energy source emissions are generated as a result of activities in buildings for which natural gas is used (e.g., natural gas for commercial cooking, boilers, water heaters). Mobile source emissions are generated by the increase in motor vehicle trips to and from the Project Site associated with operation of the Project. Stationary source emissions are generated from proposed emergency generators during routine maintenance/testing.

Criteria pollutants are emitted during the generation of electricity at fossil fuel power plants. When electricity is used in buildings, the electricity generation typically takes place at off-site power plants, the majority of which burn fossil fuels. Because power plants are existing stationary sources permitted by air districts and/or the USEPA, criteria pollutant emissions are generally associated with the power plants themselves, and not individual buildings or electricity users. Additionally, criteria pollutant emissions from power plants are subject to local, state, and federal control measures, which can be considered to be the maximum feasible level of mitigation for stack emissions. CalEEMod, therefore, does not calculate criteria pollutant emissions from regional power plants associated with on-site use.

Similar to construction, SCAQMD's CalEEMod model was used to estimate Project emissions during operation. Trip generation data was provided by Fehr & Peers and Project vehicle miles travelled (VMT) was calculated based on CalEEMod default trip lengths for Los Angeles County. CalEEMod calculates mobile-source emissions using the Project's VMT,

trip generation, and emission factors based on EMFAC2021.[9] Area source emissions are based on landscaping equipment and consumer product usage (including paints) rates provided in CalEEMod. Emissions associated with use of emergency generators were calculated using CalEEMod, in which emission factors are based on Table 3.4-1 (Gaseous Emission Factors for Large Stationary Diesel Engines) from EPA's AP-42: Compilation of Air Pollutant Emission Factors. The emissions are based on the horsepower rating of the diesel generator and the number of hours operated per year for testing purposes.

To determine if a significant air quality impact would occur, the increase in regional operational emissions generated by the Project was compared against SCAQMD's significance thresholds.[10] To be conservative, this analysis evaluates the Project's air quality impacts during operations based on reasonably expected maximum operational emissions even though such emissions would not occur throughout the entire operational phase (i.e., peak day operational activities and emissions are assumed to occur every day). Refer to Appendix AQ-2 for additional information regarding methodology.

(b) Localized Emissions

(i) On-Site Emissions

Localized impacts from Project operations include the calculation of on-site emissions (e.g., combustion from natural gas usage) using SCAQMD's recommended CalEEMod and evaluation of these emissions consistent with SCAQMD's LST methodology discussed above.

(ii) Off-Site Emissions

Potential localized CO concentrations from induced traffic at nearby intersections are also addressed, consistent with the methodologies and assumptions used in the consistency analysis provided in the 2003 AQMP. The 2003 AQMP was the latest AQMP to perform the modeling attainment demonstration for CO.[11]

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[9] *CAPCOA, California Emissions Estimator Model, Appendix C: Calculation Details for CalEEMod, April 2022.*

[10] *SCAQMD, SCAQMD 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 and 6-2.).*

[11] *SCAQMD, 2003 Air Quality Management Plan, Final 2003 AQMP Appendix V Modeling and Attainment Demonstrations, August 2003*

It has been recognized that CO exceedances are caused by vehicular emissions,[12] primarily when idling at intersections.[13,14] Accordingly, vehicle emissions standards have become increasingly more stringent. Before the first vehicle emission regulations, cars in the 1950s were typically emitting about 87 grams of CO per mile.[15] Since the first regulation of CO emissions from vehicles (model year 1966) in California, vehicle emissions standards for CO applicable to light duty vehicles have decreased by 96 percent for automobiles,[16,17] and cold weather CO standards have been implemented, effective for the 1996 model year.[18] Currently, the CO standard in California is a maximum of 3.4 grams/mile for passenger cars (with provisions for certain cars to emit even less).[19] With the turnover of older vehicles, introduction of cleaner fuels and implementation of control technology on industrial facilities, CO concentrations in the Air Basin have steadily declined.

The analysis prepared for CO attainment in the Air Basin by SCAQMD can be used to assist in evaluating the potential for CO exceedances in the Air Basin. CO attainment was thoroughly analyzed as part of SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan).[20] As discussed in the 1992 CO Plan, peak CO concentrations in the Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of the 1992 CO Plan and subsequent plan updates and air quality management plans.

In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which had a daily traffic volume of approximately 100,000 vehicles per day. The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm, which indicates that the most stringent 1-hour

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12 *USEPA, Air Quality Criteria for Carbon Monoxide, EPA 600/P-099/001F, 2000.*

13 *SCAQMD, CEQA Air Quality Handbook, Section 4.5, 1993.*

14 *SCAQMD, Air Quality Management Plan, 2003.*

15 *USEPA, Timeline of Major Accomplishments in Transportation, Air Pollution, and Climate Change, www.epa.gov/transportation-air-pollution-and-climate-change/timeline-major-accomplishments-transportation-air, accessed January 21, 2025.*

16 *National Academy Board on Energy and Environmental Systems, Review of the 21st Century Truck Partnership, 2008, Appendix D: Vehicle Emission Regulations [excerpt from http://books.nap.edu/openbook.php?record_id=12258&page=107].*

17 *Kavanagh, Jason, Untangling U.S. Vehicle Emissions Regulations, 2008.*

18 *Title 13, California Code of Regulations, Section 1960.1(f)(2) [for 50,000 mile half-life].*

19 *CARB, California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-duty Trucks, and Medium-duty Vehicles, amended September 27, 2010.*

20 *SCAQMD, Federal Attainment Plan for Carbon Monoxide, 1992.*

CO standard (20.0 ppm) would likely not be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day.[21] As an initial screening step, if a project intersection does not exceed 400,000 vehicles per day, then the project does not need to prepare a detailed CO hot spot analysis. If a project would potentially result in a CO hotspot based on the initial screening, detailed modeling may be performed using California LINE Source Dispersion Model, version 4 (CALINE4), which is a model used to assess air quality impacts near transportation facilities (i.e., roadways, intersections, and parking facilities).

(3) Toxic Air Contaminants Impacts (Construction and Operations)

Potential TAC impacts are evaluated by conducting a qualitative analysis consistent with CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB's Handbook), which provides recommendations regarding the siting of new sensitive land uses near potential sources of toxic air emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities).[22] SCAQMD adopted similar recommendations in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*.[23] The SCAQMD guidance states that "the potential for public health impacts remains unchanged when siting sensitive receptors near a pollution source or a pollution source near a sensitive receptor," and has adopted similar siting distances as the CARB Handbook for evaluating health risk impacts from TAC sources on sensitive uses.[24] The qualitative analysis presented in this report consists of reviewing the Project to identify any new or modified TAC emissions sources and evaluating the potential for such sources to cause significant TAC impacts. This qualitative evaluation also takes into account the Project's potential source of TAC emissions and distance to sensitive receptors based on CARB siting distances. 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. For the detailed analysis, downwind sensitive receptor locations are identified, and site-specific dispersion modeling is conducted to estimate Project impacts.

C. GHG Methodology

CEQA Guidelines Section 15064.4 includes provisions to assist lead agencies in determining the significance of impacts from GHG emissions. Consistent with existing CEQA practice, Section 15064.4 gives lead agencies the discretion to determine whether to assess

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[21] *Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).*

[22] *CARB, Air Quality and Land Use Handbook, a Community Health Perspective, April 2005.*

[23] *SCAQMD, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, May 6, 2005.*

[24] *SCAQMD, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, May 6, 2005, pp 2-3.*

those emissions quantitatively or qualitatively. If a qualitative analysis is used, this section recommends certain factors that may be used in the determination of significance (i.e., the extent to which a project may increase or reduce GHG emissions compared to the existing environmental setting; whether the project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHGs). The amendments do not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies, or suggested by other experts, such as CAPCOA, so long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7(c)). The California Natural Resources Agency has also clarified that the CEQA Guidelines amendments focus on the effects of GHG emissions as cumulative impacts and that they should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15064(h)(3)).[25]

(1) Numeric Emissions Threshold

The University of California has not adopted system-wide numeric significance thresholds for assessing impacts related to GHG emissions. The UC Policy on Sustainable Practices includes GHG reduction goals and strategies but does not specify thresholds for CEQA analysis. Additionally, UCLA's Climate Action Plan (CAP) prepared in December 2008 outlines a comprehensive range of initiatives to promote sustainable practices and reduce UCLA's carbon footprint, but is not considered a CEQA-qualified CAP. Accordingly, UCLA in its capacity as Lead Agency has the discretion to select significance thresholds established by other public agencies or experts. For the proposed Project, the SCAQMD's annual non-industrial screening threshold of 3,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) shall be used as the significance threshold, in addition to qualitative thresholds of significance as set forth in the CEQA Guidelines, discussed above. The 3,000 $MTCO_2e$/year screening threshold represents a 90 percent capture rate, meaning that this threshold is reflective of projects that represent approximately 90 percent of GHG emissions from new sources. The 3,000 $MTCO_2e$/year value is typically used in defining relatively small projects that are ultimately considered less than significant.[26]

The analysis calculates the amount of GHG emissions that would be attributable to the Project using recommended air quality models, as described below. The primary purpose of quantifying the Project's GHG emissions is to satisfy State CEQA Guidelines

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[25] *See generally California Natural Resources Agency, Final Statement of Reasons for Regulatory Action (December 2009), pp. 11–13, 14, 16; see also Letter from Cynthia Bryant, Director of the California Governor's Office of Land Use and Climate Innovation (formerly Office of Planning and Research) to Mike Chrisman, Secretary for Natural Resources, April 13, 2009.*

[26] *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold. SCAQMD. October 2008.*

Section 15064.4(a), which calls for a good-faith effort to describe and calculate emissions. The estimated emissions inventory is also used to determine if there would be a reduction in the Project's incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to reduce or mitigate GHG emissions.

(2) Quantification of Emissions

In view of the above considerations, the Project's total annual GHG emissions have been quantified, taking into account the GHG emission reduction measures that would be incorporated into the Project's design such as the purchase of 100% renewable energy and installation of EV chargers. Project emissions are then compared to the SCAQMD's 3,000 $MTCO_2e$ threshold. Details regarding the calculation of GHG emissions based on established protocols are provided below. The determination of the significance of the Project's GHG emissions also considers the Project's consistency with plans and policies adopted to reduce GHG emissions, as explained further below.

(a) Project GHG Emissions Calculations

The California Climate Action Registry (Climate Registry) General Reporting Protocol provides basic procedures and guidelines for calculating and reporting GHG emissions from a number of general and industry-specific activities.[27] The General Reporting Protocol is based on the "Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard" developed by the World Business Council for Sustainable Development and the World Resources Institute through "a multi-stakeholder effort to develop a standardized approach to the voluntary reporting of GHG emissions."[28] Although no specific protocols are available for land use projects, the General Reporting Protocol provides a basic framework for calculating and reporting GHG emissions from the Project. The information provided in this section is consistent with the General Reporting Protocol's reporting requirements. A detailed discussion of the GHG methodology is included in Appendix AQ-2 of this Technical Report.

The General Reporting Protocol and the USEPA recommend the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions.[29] They include the following:

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[27] *California Climate Action Registry, General Reporting Protocol Version 3.1, January 2009.*

[28] *California Climate Action Registry, General Reporting Protocol Version 3.1, January 2009.*

[29] *USEPA, Greenhouse Gases at EPA, www.epa.gov/greeningepa/greenhouse-gases-epa, accessed January 23, 2025.*

- Scope 1: Direct, onsite combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
- Scope 2: Indirect, offsite emissions associated with purchased electricity or purchased steam or permitted sources (e.g., power plants).
- Scope 3: Indirect emissions associated with other emissions sources, such as third-party vehicles and embodied energy (e.g., energy used to convey, treat, and distribute water and wastewater).[30]

The General Reporting Protocol provides a range of basic calculations methods. However, the General Reporting Protocol calculations are typically designed for existing buildings or facilities. These retrospective calculation methods are not directly applicable to planning and development situations where buildings do not yet exist.

CARB recommends consideration of indirect emissions to provide a more complete picture of the GHG footprint of a facility. Annually reported indirect energy usage aids the conservation awareness of a facility and provides information to CARB to be considered for future strategies.[31] For example, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, OPR has noted that lead agencies "should make a good-faith effort, based on available information, to calculate, model, or estimate GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities."[32] Therefore, estimated direct and indirect emissions have been calculated for the Project.

A fundamental difficulty in the analysis of GHG emissions is the global nature of the existing and cumulative future conditions. Changes in GHG emissions can be difficult to attribute to a particular planning program or project because the planning effort or project may cause a shift in the locale for some type of GHG emissions (e.g., demolition of an existing building and construction of a new building in another location), rather than causing "new" GHG emissions. As a result, there is frequently an inability to conclude whether a project's GHG emissions represent a net global increase, reduction, or no change in GHGs that would exist if the project were not implemented. The analysis of the Project's GHG

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[30] *Embodied energy is a scientific term that refers to the quantity of energy required to manufacture and supply to the point of use a product, material, or service.*

[31] *CARB, Initial Statement of Reasons for Rulemaking, Proposed Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (AB 32), Planning and Technical Support Division Emission Inventory Branch, October 19, 2007.*

[32] *OPR Technical Advisory, CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review, June 2008, p. 5.*

emissions is particularly conservative in that it assumes that the Project's net increase in GHG emissions are new additions to the atmosphere.[33]

CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects.[34] CalEEMod was developed in collaboration with the air districts of California, who provided data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) to account for local requirements and conditions. The model is considered by the SCAQMD to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.

(i) Construction

The Project's construction emissions were calculated using CalEEMod Version 2022.1. Details of the modeling assumptions and emission factors are provided in Appendix AQ-2 of this Technical Report. CalEEMod calculates emissions from off-road equipment usage and on-road vehicle travel associated with haul, delivery, and construction worker trips. GHG emissions during construction were forecast based on the construction assumptions included in Appendix AQ-3 of this Technical Report and applying the mobile-source emissions factors derived from CalEEMod.

The calculations of the emissions generated during Project construction activities reflect the types and quantities of construction equipment that would be used to perform interior demolition, renovation of interior spaces, minor earthwork and trenching, and repaving of limited surfaces within the Project Site.

In accordance with SCAQMD's guidance, GHG emissions from construction were amortized (i.e., averaged annually) over the 30-year lifetime of the Project. As impacts from construction activities occur over a relatively short-term period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. Therefore, SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies.[35] Thus, total construction GHG emissions were

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[33] *In particular, the relocation of UCLA Health's Brentwood Lab to the Project Site is not accounted for, nor are the mobile (vehicular) emissions associated with Project employees who previously commuted elsewhere in the region.*

[34] *SCAQMD, CEQA Air Quality Modeling, www.aqmd.gov/home/rules-compliance/ceqa/air-quality-modeling, accessed January 23, 2025.*

[35] *SCAQMD, Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, 2008.*

divided by 30 to determine an annual construction emissions estimate comparable to operational emissions.

(ii) Operation

Similar to construction, the SCAQMD-recommended CalEEMod is used to calculate potential GHG emissions generated by existing and new land uses on the Project Site, including area sources, electricity, natural gas, mobile sources, stationary sources (i.e., emergency generators), solid waste generation and disposal, and water usage/wastewater generation. CalEEMod default values for utility generation/usage rates, GHG emission factors, and GWP values were used in the evaluation of operational GHG emissions from the Project.

Area source emissions include landscaping, natural gas combustion (e.g., boilers and other HVAC system components) and architectural coating activities, where the emissions are based on the size of the land uses (e.g., square footage or dwelling unit), the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted.

Emissions of GHGs associated with electricity demand are based on the size of the land uses, the electrical demand factors for the land uses, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. GHG emissions from electricity use are directly dependent on the electricity utility provider. The Project is located within the SCE service area. As discussed in more detail below, as required by the UC Policy on Sustainable Practices, UCLA Health would purchase 100% renewable electricity from SCE during operations. The carbon intensity (lbs/MWh) for electricity generation was set to zero (0 lbs. CO_2 per MWh) for the Project buildout year (2028) and calculated for the existing baseline based on SCE projections for year 2025 (449 lbs. CO_2 per MWh). SCE's carbon intensity projections also take into account SB 100 and SB 350 RPS requirements for renewable energy.

As with electricity, the emissions of GHGs associated with natural gas combustion are based on the size of the land uses, the natural gas combustion factors for the land uses in units of million British thermal units (MMBTU), the GHG emission factors for natural gas combustion, and the GWP values for the GHGs emitted.

Mobile source GHG emissions are calculated based on emission factors and an estimate of the Project's annual VMT, which was based on trip generation provided by Fehr & Peers and CalEEMod default trip lengths.[36]

[36] *Fehr and Peers, Inc., UCLA Sports Medicine Institute VMT Study, Los Angeles, California, July 2025.*

Stationary source GHG emissions are based on proposed stationary sources (i.e., emergency generators) that would be provided on the Project Site.

The emissions of GHGs associated with solid waste disposal are based on the Project's proposed land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition as provided by CalEEMod, and the GWP values for the GHGs emitted.

The GHG emissions related to water usage and wastewater generation are based on the proposed land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution, electrical intensity factors for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. CalEEMod uses electricity intensity factors obtained from the 2006 CEC report, "Refining Estimates of Water-Related Energy Use in California" which represent the amount of electricity needed to transport and treat water. Water usage factors were obtained from surveys conducted throughout California for various land uses. Project water consumption GHG emissions were then quantified based on electricity usage and carbon intensity factors specific to electricity providers described above.

The GHG emissions calculations for the Project include credits or reductions for implementation of project design features discussed below. The analysis of Project GHG emissions with project design features at buildout also takes into account actions and mandates already approved and in force (e.g., Title 24 Standards, Pavley I Standards, full implementation of California's Statewide RPS beyond current levels of renewable energy, and the California LCFS).[37] It should be noted that GHG reductions due to LCFS are currently not incorporated into CalEEMod. The CalEEMod model incorporates emission factors from CARB's Emission Factor model (EMFAC2021) emission factors, which are based on tailpipe emissions for combustion powered vehicles. The emissions benefits due to LCFS come from the production cycle (upstream emissions) rather than the combustion cycle (tailpipe). As a result, EMFAC2021 emission factors do not include benefits due to LCFS as emission factors are based on tailpipe emissions. As a conservative assumption, GHG emissions reductions resulting from the LCFS updates were not included in the Project's emissions inventory. In addition, as mobile source GHG emissions are directly dependent on the number of vehicle trips, a decrease in the number of Project-generated trips as a result of Project features (e.g., close proximity to transit) would provide a proportional reduction in mobile source GHG emissions compared to a generic project without such locational benefits. Calculation of Project emissions conservatively did not include actions and mandates that are not currently in effect but are anticipated to be enforced by Project buildout (e.g., Pavley II, which could further reduce GHG emissions from

[37] *Actions and mandates are based on relevant year targets established by AB 32 and the current CARB Scoping Plan.*

use of light-duty vehicles by 2.5 percent). Similarly, emissions reductions regarding the Cap-and-Trade Program were not included in this analysis. By not speculating on potential regulatory conditions, the analysis takes a conservative approach that likely overestimates the Project's GHG emissions at buildout because the State is expected to continue to implement a number of policies and programs aimed at reducing GHG emissions from the land use and transportation sectors to meet the State's long-term climate goals.

(3) Consistency with GHG Reduction Plans and Regulations

The Project's GHG impacts also were evaluated by assessing the Project's consistency with applicable statewide and regional GHG reduction plans and strategies. Specifically, the Project has been evaluated for consistency with the UC Policy on Sustainable Practices, CARB's 2022 Scoping Plan, and SCAG's 2024–2050 RTP/SCS. It is noted that as a state entity, the UC is not subject to municipal plans, policies, and regulations, nor is it subject to regional planning processes; nonetheless, discussion of the RTP/SCS is provided herein for informational purposes.

In recognition of the urgency of the climate crisis and the responsibility of public universities to lead in reducing emissions, the UC Policy on Sustainable Practices describes UC's commitments to reduce operational GHG emissions to support the State's climate goals while minimizing impacts to vulnerable populations. The UC Policy on Sustainable Practices calls for collective action to address the climate crisis by establishing goals in 13 areas of sustainable practices. This policy document applies to all 10 UC campuses, five academic health centers, UC Agriculture and Natural Resources locations, Lawrence Berkeley National Laboratory, and the UC Office of the President. In particular, all UC locations are tasked with achieving at least a 90% reduction in total emissions (Scopes 1, 2, and 3) relative to a 2019 baseline by no later than 2045.

The California Governor's Office of Land Use and Climate Innovation (LCI; formerly the Office of Planning and Research) encourages lead agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. On a statewide level, the 2022 Scoping Plan provides measures to achieve AB 32 and SB 32 targets. On a regional level, SCAG's 2024–2050 RTP/SCS contains measures to achieve VMT reductions required under SB 375. Thus, if the Project is designed to align with these plans, policies, regulations, and requirements, the Project would result in a less than significant impact because it would be consistent with the overarching State and regional plans for GHG reduction (i.e., AB 32, AB 1297).

The consistency analysis describes the Project's compliance with the policies and objectives outlined in the applicable portions of these GHG reduction plans and strategies.

D. Project Design Features

As part of the Project, UCLA Health has incorporated project features to support and promote environmental sustainability by complying with applicable regulatory requirements, including the provisions set forth in the UC Policy on Sustainable Practices. Refer to Section III, Project Description, of the Initial Study for a comprehensive list of sustainability features incorporated into the Project. The sustainability features for which emission reductions have been quantified in CalEEMod include: the purchase of 100% renewable energy and the addition of 28 EV charging stations to the existing parking lot. The provision of EV charging stations would facilitate and encourage the use of alternative fueled vehicles.

E. Air Quality Impacts

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

Less Than Significant Impact. The Project Site is located within the 6,745-square-mile South Coast Air Basin (Basin), which includes all of Orange County and portions of Los Angeles, Riverside, and San Bernardino Counties. The SCAQMD is the air pollution control agency for the Basin and is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the Basin is in non-attainment (i.e., ozone [O_3]). SCAQMD's 2022 Air Quality Management Plan (2022 AQMP) is the regional blueprint for achieving air quality standards and healthful air. The 2022 AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by SCAG.

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. With regard to future growth, SCAG prepared the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS) which provides population, housing, and employment projections for cities under its jurisdiction.[38] The growth projections in the 2020–2045 RTP/SCS are based in part on projections originating under County and City General

[38] *On April 4, 2024, SCAG adopted an updated 2024–2050 RTP/SCS. Similar to the 2020–2045 RTP/SCS, the 2024–2050 RTP/SCS is a long-term plan for the Southern California region that details investment in the transportation system and development in communities to meet the existing and future needs of the region through projects, investments, policies and strategies. However, the 2020–2045 RTP/SCS forecasts for population, housing, and employment growth were used to characterize regional growth in the 2022 AQMP. As such, this air quality analysis uses data from SCAG's 2020–2045 RTP/SCS for consistency with the 2022 AQMP.*

Plans. These growth projections were utilized in the preparation of the air quality forecasts and consistency analysis included in the 2022 AQMP.

The 2022 AQMP was adopted by the SCAQMD as a program to lead the Air Basin into compliance with several criteria pollutant standards and other federal requirements. It relies on emissions forecasts based on demographic and economic growth projections provided by SCAG's 2020–2045 RTP/SCS. SCAG is charged by California law to prepare and approve "the portions of each AQMP relating to demographic projections and integrated regional land use, housing, employment, and transportation programs, measures and strategies." Projects whose growth is included in the projections used in the formulation of the AQMP are considered consistent with the plan and would not interfere with its attainment. The SCAQMD recommends that, when determining whether a project is consistent with the current AQMP, a lead agency must assess whether the project would directly obstruct implementation of the plan and whether it is consistent with the demographic and economic assumptions (typically land use related, such as resultant employment or residential units) upon which the plan is based.[39]

As described in detail above, the Project would include adaptive reuse and renovation of an existing 170,000 square foot life sciences building. Adaptive reuse would provide for a sports medicine institute, a clinical microbiology laboratory, and a pharmacy along with support spaces and amenities. The Project would increase the employee population within the area. The Project's employment estimate of 593 employees represents a gross (not net new) number of employees and conservatively does not take into consideration the number of workers who would be relocated from other UCLA Health facilities in the region (at least 152 existing employees), or the number of employees who previously occupied the Project building prior to Siemens vacating the site in 2024. The total number of Project employees would represent approximately 0.3 percent of the employment increase projected for the Los Angeles County in the 2020–2045 RTP/SCS for the period between 2020 and 2030.[40] This level of growth would be well within the employment projections for the region. Furthermore, while the Project would generate jobs associated with construction of the Project, those employment opportunities would be short-term in nature during construction and comprised of positions that circulate throughout the region based on the location of each construction site. Therefore, the Project would be consistent with the demographic projections set forth in SCAG's 2020–2045 RTP/SCS, which were used as the basis for the 2022 AQMP. Since the Project's growth is accounted for in the AQMP, the Project would not conflict with or obstruct implementation of the 2022 AQMP.

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[39] *SCAQMD, CEQA Air Quality Handbook, Section 12.1, 1993.*

[40] *According to the Demographic & Growth Forecast technical report included in SCAG's 2020–2045 RTP/SCS, the number of employees in Los Angeles County is estimated to increase from approximately 4,838,000 in 2020 to 5,060,000 in 2030 (an increase of approximately 222,000 employees).*

As shown in Table 1 through Table 4 on pages 24 through 28, Project implementation would not exceed California or federal ambient air quality standards or thresholds. As the Project would not increase the frequency or severity of an existing air quality violation or cause or contribute to new violations for air quality pollutants including VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$, the Project would also not delay timely attainment of air quality standards or interim emission reductions specified in the 2022 AQMP. In addition, the Project would be consistent with the population and employment growth projections in the AQMP. ***Therefore, the Project would not conflict with or obstruct implementation of the SCAQMD's AQMP, and impacts would be less than significant.***

Table 1
Estimate of Regional Project Construction Emissions[a]
(pounds per day)

Construction Year	VOC[b]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Regional Construction Emissions Winter						
Year 2026	1	10	12	<1	3	<1
Year 2027	14	13	19	<1	2	<1
Year 2028	13	8	13	<1	1	<1
Maximum Unmitigated Construction Emissions	14	13	19	<1	3	<1
SCAQMD Daily Significance Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Over/(Under)	**(62)**	**(87)**	**(531)**	**(150)**	**(147)**	**(54)**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Regional Construction Emissions Summer						
Year 2026	1	12	18	<1	3	1
Year 2027	13	8	14	<1	1	1
Year 2028	-	-	-	-	-	-
Maximum Unmitigated Construction Emissions	13	12	18	<1	3	1
SCAQMD Daily Significance Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Over/(Under)	**(62)**	**(88)**	**(532)**	**(150)**	**(147)**	**(54)**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

[a] *Compiled using the CalEEMod emissions model. The equipment mix and use assumption for each phase are provided in Appendix AQ-3. CalEEMod modeling outputs are also provided in Appendix AQ-3.*

[b] *Please note that the SCAQMD significance threshold is in terms of VOC while CalEEMod calculates reactive organic compounds (ROG) emissions. For purposes of this analysis, VOC and ROG are used interchangeably since ROG represents approximately 99.9 percent of VOC emissions.*

Source: Eyestone Environmental, 2025.

Table 2
Estimate of Localized Project Construction Emissions
(pounds per day)[a]

Construction Year	NO_X	CO	PM_{10}[b]	$PM_{2.5}$[b]
Winter				
Year 2026	7	10	2	<1
Year 2027	11	15	<1	<1
Year 2028	7	9	<1	<1
Maximum Unmitigated Daily Localized Emissions	**11**	**15**	**2**	**<1**
SCAQMD Localized Significance Thresholds[c]	**110**	**967**	**8**	**5**
Over/(Under)	**(99)**	**(952)**	**(6)**	**(5)**
Exceed Threshold?	**No**	**No**	**No**	**No**
Summer				
Year 2026	11	13	2	<1
Year 2027	7	9	<1	<1
Year 2028	—	—	—	—
Maximum Unmitigated Daily Localized Emissions	**11**	**13**	**2**	**<1**
SCAQMD Localized Significance Thresholds[c]	**110**	**967**	**8**	**5**
Over/(Under)	**(100)**	**(954)**	**(6)**	**(5)**
Exceed Threshold?	**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

[a] *Compiled using the CalEEMod emissions model. The equipment mix and use assumption for each phase are provided in Appendix AQ-3. CalEEMod modeling outputs are also provided in Appendix AQ-3.*

[b] *PM_{10} and $PM_{2.5}$ emission estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.*

[c] *The SCAQMD LSTs are based on Source Receptor Area No. 3 (Southwest Los Angeles County Coastal) for a 2-acre site with a 25-meter receptor distance. The closest sensitive receptors are residential uses located approximately 70 feet (20 meters) west of the Project Site. Refer to SCAQMD Localized Significance Threshold Methodology, Appendix C, July 2008.*

Source: Eyestone Environmental, 2025; SCAQMD, Final Localized Significance Threshold Methodology, July 2008.

Table 3
Project Regional Operational Emissions—Project Buildout (2028)
(pounds per day)[a]

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Existing Winter						
Area	4	<1	<1	<1	<1	<1
Energy (Natural Gas)	<1	2	1	<1	<1	<1
Mobile	5	4	42	<1	11	3
Stationary (Emergency Generator)	<1	2	2	<1	<1	<1
Total	10	8	45	<1	12	3
Buildout Winter						
Area	4	<1	<1	<1	<1	<1
Energy (Natural Gas)[b]	<1	3	2	<1	<1	<1
Mobile	11	10	97	<1	26	7
Stationary (Emergency Generator)	1	6	3	<1	<1	<1
Total	17	18	103	<1	27	7
Project (Buildout less Existing) Winter						
Area	<1	<1	<1	<1	<1	<1
Energy (Natural Gas)[b]	<1	1	<1	<1	<1	<1
Mobile	6	5	56	<1	15	4
Stationary (Emergency Generator)	<1	3	1	<1	<1	<1
Total Proposed Uses Net Emissions	**7**	**10**	**58**	**<1**	**15**	**4**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Over/(Under)	**(48)**	**(45)**	**(492)**	**(150)**	**(135)**	**(51)**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Existing Summer						
Area	5	<1	7	<1	<1	<1
Energy (Natural Gas)	<1	3	2	<1	<1	<1
Mobile	11	9	106	<1	26	7
Stationary (Emergency Generator)	<1	2	2	<1	<1	<1
Total	11	8	57	<1	12	3
Buildout Summer						
Area	5	<1	7	<1	<1	<1
Energy (Natural Gas)[b]	<1	3	2	<1	<1	<1
Mobile	11	9	106	<1	26	7
Stationary (Emergency Generator)	1	6	3	<1	<1	<1
Total	18	17	119	<1	27	7
Project (Buildout less Existing) Summer						
Area	<1	<1	<1	<1	<1	<1
Energy (Natural Gas)[b]	<1	<1	<1	<1	<1	<1
Mobile	6	5	60	<1	15	4
Stationary (Emergency Generator)	<1	3	1	<1	<1	<1

Table 3 (Continued)
Project Regional Operational Emissions—Project Buildout (2028)
(pounds per day)

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Total Proposed Uses Net Emissions	**7**	**9**	**63**	**<1**	**15**	**4**
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Over/(Under)	**(48)**	**(46)**	**(488)**	**(150)**	**(135)**	**(51)**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Numbers may not add up exactly due to rounding.

[a] *The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix AQ-3 (CalEEMod Output).*

[b] *Includes natural gas usage from boilers.*

Source: Eyestone Environmental, 2025.

Table 4
Project Localized Operational Emissions (Net Increase)—Project Buildout (2028)
(pounds per day)[a]

Emission Source	NO_X	CO	PM_{10}	$PM_{2.5}$
Winter				
Area[b]	<1	<1	<1	<1
Energy (Natural Gas)	1	<1	<1	<1
Emergency Generators	3	1	<1	<1
Project Emissions[c]	**4**	**2**	**<1**	**<1**
SCAQMD Significance Threshold[d]	**110**	**967**	**2**	**1**
Over/(Under)	**(106)**	**(965)**	**(2)**	**(1)**
Exceed Threshold?	**No**	**No**	**No**	**No**
Summer				
Area[b]	<1	<1	<1	<1
Energy (Natural Gas)	<1	<1	<1	<1
Emergency Generators	3	1	<1	<1
Project Emissions	4	2	<1	<1
SCAQMD Significance Threshold[c]	**110**	**967**	**2**	**1**
Over/(Under)	**(106)**	**(965)**	**(2)**	**(1)**
Exceed Threshold?	**No**	**No**	**No**	**No**

[a] *Compiled using the CalEEMod emissions model. Worksheets and CalEEMod modeling outputs are also provided in Appendix AQ-3.*

[b] *Area sources include consumer products, architectural coatings and landscaping activities. During winter, CalEEMod assumes minimal landscaping activities. However, worst-case emissions during the summer are used to evaluate impacts.*

[c] *Localized emissions include area, energy and stationary sources including emergency generators and boilers.*

[d] *The SCAQMD LSTs are based on Source Receptor Area No. 3 (Southwest Los Angeles County Coastal) for a 2-acre site with a 25-meter receptor distance. The closest sensitive receptors are residential uses located approximately 70 feet (20 meters) west of the Project Site. Refer to SCAQMD Localized Significance Threshold Methodology, Appendix C, July 2008.*

Source: Eyestone Environmental, 2025; SCAQMD, Final Localized Significance Threshold Methodology, July 2008.

Threshold (b): Would the Project 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?[41]

Less Than Significant Impact. As indicated above, the Project Site is located within the South Coast Air Basin, which is characterized by relatively moderate air quality. State

[41] *See Appendix AQ-1 Regulatory Framework, Table 1, for the attainment status of criteria pollutants.*

and federal air quality standards are often exceeded in many parts of the Basin, including the monitoring stations nearest to the Project Site, which exceed the most stringent ambient air quality standard for ozone and particulate matter. The monitoring station most representative of the Project Site is the West LA Station, located at Wilshire Boulevard and Sawtelle Boulevard in the City of Los Angeles, approximately 9.6 miles north of the Project Site. The Project would contribute to local and regional air pollutant emissions during construction (short-term) and Project occupancy (long-term). However, as demonstrated by the following analysis, construction and operation of the Project would result in less than significant impacts relative to the daily significance thresholds for criteria air pollutant emissions established within the SCAQMD CEQA Air Quality Handbook.[42]

Construction

Construction of the Project has the potential to create regional air quality impacts by heavy-duty construction equipment and vehicle trips generated by construction workers traveling to and from the Project Site. In addition, fugitive dust emissions would result from site preparation, minor earthwork, and interior construction activities. Mobile source emissions, primarily particulate matter and NO_X would result from the use of construction equipment such as loaders, backhoes, and haul trucks. During the finishing phase, paving operations and the application of architectural coatings (e.g., paints) and other building materials would release VOCs. 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.

Based on criteria set forth in the SCAQMD CEQA Air Quality Handbook, a project would have the potential to violate an air quality standard or contribute substantially to an existing violation and result in a significant impact with regard to construction emissions if regional emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed threshold levels: (1) 75 pounds a day for VOCs; (2) 100 pounds per day for 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 $PM_{2.5}$.[43]

Construction activities would include interior demolition, limited trenching, minor repaving of portions of the existing parking lot, interior construction, and architectural coatings. Construction is estimated to commence in 2026, with completion in 2028.

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[42] *SCAQMD, Air Quality Analysis Guidance Handbook, www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook, accessed January 21, 2025.*

[43] *SCAQMD, Air Quality Analysis Guidance Handbook, www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook, accessed January 21, 2025.*

Regional Impacts

Regional construction-related emissions associated with heavy construction equipment were calculated using the SCAQMD recommended California Emissions Estimator Model (CalEEMod) Version 2022.1. Model results are provided in Appendix AQ-3. The analysis assumes that all construction activities would comply with SCAQMD Rule 403 regarding the control of fugitive dust, as well as UCLA's previously adopted mitigation measures and PPs contained in the LRDP MMRP, discussed above. Such measures include using at minimum USEPA Tier III-rated construction equipment, minimizing equipment idling, and the use of low VOC architectural coatings, among others. A summary of unmitigated maximum daily regional emissions for Project construction is presented in Table 1 on page 24, along with the regional significance thresholds for each air pollutant. As presented therein, construction-related daily maximum regional construction emissions (i.e., combined on-site and off-site emissions) would not exceed the thresholds for VOC, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$.

As Project regional construction emissions would remain below SCAQMD significance thresholds, the Project would result in a less than significant impact with regard to regional construction emissions.

Localized Impacts

The localized effects from on-site daily emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to SCAQMD's LST methodology, which, as described above, uses on-site mass emissions rate lookup tables and Project-specific modeling, where appropriate.[44] SCAQMD provides LSTs applicable to the following criteria pollutants: NO_X, CO, PM_{10}, or $PM_{2.5}$. As previously discussed, the mass rate look-up tables can be used to determine whether 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. While the total Project Site is 9.2 acres, the majority of construction activities would occur within the building footprint (approximately two acres) plus approximately one acre of exterior disturbance surrounding the building; accordingly, the active work area will be less than five acres.

Estimates of maximum construction-related localized (on-site) daily emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ are presented in Table 2 on page 25. Based on the construction site acreage and distance to the closest off-site sensitive receptors, localized construction emissions thresholds were obtained from the LST look-up tables and are also listed in Table 2. The nearest residential uses are located adjacent to the Project Site along the

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[44] *SCAQMD, LST Methodology Appendix C—Mass Rate LST Look-Up Table, October 2009.*

southern and western boundaries, approximately 70 feet (20 meters) from the building footprint. Limited construction activities such as equipment staging/installation and vehicle travel may occur at or near the Project boundary, inside the perimeter wall that is adjacent to the off-site sensitive receptors. The SCAQMD LST mass rate look-up tables provide a minimum receptor distance of 25 meters for evaluating localized air quality impacts. Based on SCAQMD LST methodology, projects with boundaries located closer than 25 meters to the nearest receptor (such as the Project) should use the LSTs for receptors located at 25 meters.[45] Therefore, LSTs based on a 25-meter receptor distance were used as a close approximation of actual conditions. As presented in Table 2, construction-related daily maximum localized emissions would not exceed the SCAQMD daily significance thresholds for NO_X, CO, PM_{10}, or $PM_{2.5}$. Therefore, localized construction emissions associated with the Project would result in less than significant impacts, and no mitigation measures are required.

Localized construction emissions from the Project would result in a less than significant impact.

Operation

SCAQMD has established separate significance thresholds to evaluate potential impacts due to the incremental increase in criteria air pollutants associated with long-term operations. Regional operational emissions for the Project were calculated using CalEEMod. Inputs into the CalEEMod model include Project-related vehicle trips, as well as land uses and square footage to determine energy, water usage, and waste generation. Mobile-source emissions were calculated within CalEEMod based on data from the trip generation. In addition, the proposed land uses would result in an increase in emissions generated by energy sources (e.g., natural gas combustion) and area sources (e.g., landscape equipment fuel combustion, consumer products, and architectural coatings). The Project would also add two new boilers, gas water heaters, and four emergency generators as part of the utility upgrades. Emissions for boilers and emergency generators were also calculated for the Project's operational emissions inventory based on EPA AP-42 emission factors for boilers and SCAQMD Rule 1470 limits for emergency generators.

Regional Impacts

The results of the modeled emissions calculations are provided in Table 3 on page 26, and CalEEMod model output files are provided in Appendix AQ-3. As indicated therein, the Project would result in an increase in criteria pollutant (VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$.) emissions which would fall below the SCAQMD daily significance thresholds for long-term regional emissions. Therefore, impacts associated with regional operational

[45] *SCAQMD, Final Localized Significance Threshold Methodology, revised July 2008.*

emissions would be less than significant, and no mitigation measures are required. ***Therefore, regional operational emissions resulting from the Project would result in a less-than-significant air quality impact.***

Localized Impacts

The operation of the Project would not introduce any major new sources of air pollution within the Project Site. Localized emissions estimates for criteria air pollutants from on-site sources are presented in Table 4 on page 28. The SCAQMD LST mass rate look-up tables, which apply to projects that have active areas that are less than or equal to 5 acres in size, were used to evaluate potential localized impacts. As shown in Table 4, on-site localized operational emissions would not exceed any of the LSTs for NO_X, CO, PM_{10}, or $PM_{2.5}$. ***Therefore, localized on-site operational emissions resulting from the Project would result in a less-than-significant air quality impact.***

Under existing conditions, CO levels in the Project area are substantially below the federal and state standards.[46] No exceedances of CO have been recorded at monitoring stations in the Basin for some time, and the Basin is currently designated as a CO attainment area for both the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). Air quality data from the SCAQMD Central LA monitoring station between years 2022-2024 indicate that the maximum CO levels in recent years are 2.0 ppm (1-hour average) and 1.6 ppm (8-hour average) compared to the thresholds of 20 ppm (1-hour average) and 9.0 ppm (8-hour average).[47]

Localized areas where ambient concentrations exceed state and/or federal standards are termed CO hotspots. Emissions of CO are produced in greatest quantities from motor vehicle combustion and are usually concentrated at or near ground level because they do not readily disperse into the atmosphere, particularly under cool, stable (i.e., low or no wind) atmospheric conditions. The potential for the Project to cause or contribute to CO hotspots was evaluated by comparing nearby intersections (both intersection geometry and traffic volumes) with prior studies conducted by SCAQMD in support of their AQMP. As discussed below, this comparison provides evidence that the Project would not cause or contribute to the formation of CO hotspots, that CO concentrations at nearby intersections would remain well below the ambient air quality standards, and that no further CO analysis is warranted or required.

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[46] *SCAQMD, Historical Data by Year, www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year, accessed July 21, 2025.*

[47] *SCAQMD, Historical Data by Year, www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year, accessed July 21, 2025.*

As discussed above, SCAQMD conducted CO modeling for the 2003 AQMP for the four worst-case intersections in the Basin, which indicates that the most stringent 1-hour CO standard (20.0 ppm) would likely not be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day.[48] As an initial screening step, if a project intersection does not exceed 400,000 vehicles per day, then the project does not need to prepare a detailed CO hot spot analysis.

At buildout of the Project, the Project is projected to result in a net increase of 2,048 daily trips, as detailed in Appendix AQ-3.[49] The addition of these trips to any of the nearest intersections would not result in an average daily traffic volume anywhere near the volumes analyzed in the 2003 AQMP. Therefore, the Project would not trigger the need for CO hotspots modeling and would not cause any new or exacerbate any existing CO hotspots. As a result, impacts related to localized mobile-source CO emissions are considered less than significant. ***The Project would not involve any new significant localized air quality impacts.***

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Certain population groups are especially sensitive to air pollution and should be given special consideration when evaluating potential air quality impacts. These population groups include children, the elderly, persons with pre-existing respiratory or cardiovascular illness, and athletes or others who engage in frequent exercise. As defined in the SCAQMD CEQA Air Quality Handbook, a sensitive receptor to air quality is defined as any of the following land use categories: (1) long-term health care facilities; (2) rehabilitation centers; (3) convalescent centers; (4) retirement homes; (5) residences; (6) schools (i.e., elementary, middle school, high schools); (7) parks and playgrounds; (8) childcare centers; and (9) athletic fields. As previously described, the nearest sensitive receptors with respect to air quality are residential uses located approximately 70 feet (20 meters) west of the Project Site.

As discussed above, construction and operation of the Project would result in less than significant impacts relative to both regional and localized air pollution emissions. Therefore, the Project would not expose sensitive receptors to substantial pollutant concentrations. In addition, Project construction activities would comply with SCAQMD Rule 403 regarding the control of fugitive dust as well as the previously adopted mitigation measures and PPs contained in the LRDP MMRP, discussed above. As such, impacts to

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[48] *Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).*

[49] *The VMT Study did not include TDM measures to provide a conservative analysis. For analysis of air quality, GHG, energy and noise impacts, VMT was calculated to incorporate proposed TDM measures so as not to overestimate impacts for these analyses.*

off-site sensitive receptors would be less than significant, and no Project-specific mitigation measures are required.

The greatest potential for TAC emissions would generally involve diesel particulate emissions associated with heavy equipment operations during trenching activities. According to SCAQMD methodology, health effects from carcinogenic air toxins 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 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Construction activities are temporary and short-term events; thus, construction activities would not result in a long-term substantial source of TAC emissions. Additionally, SCAQMD's CEQA Air Quality Handbook and SCAQMD's supplemental online guidance/information do not require an HRA for short-term construction emissions. It is, therefore, not required or meaningful to evaluate long-term cancer impacts from construction activities which occur over relatively short durations. Particularly in the case of the Project, the entire construction duration would be approximately 22 months, with specific construction activities lasting 4 to 10 weeks and the majority of activities occurring within the building interior. As such, given the short-term nature of these activities, TAC emission impacts during construction would be less than significant.

With regard to operational TAC emissions, the Project would not include sources of TACs such as large boilers (>2 MMBTU/hr) or any other non-emergency combustion sources. 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 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 retain the two existing 1.23-MMBTU/hr natural gas-fired boilers and add two 1-MMBTU/hr natural gas-fired boilers. As the Project is located in an existing building, the zero emissions limits on boilers set forth in SCAQMD Rule 1146.2 would not be required until Year 2031, after Project buildout. Gas-fired boilers and other equipment installed before the zero emissions compliance date can remain operational for up to 25 years. Any replacement boilers or similar equipment installed after 2031 would be required to generate zero emissions (i.e., electric units), consistent with Rule 1146.2.[50]

The Project Site currently has one emergency generator which will be replaced with four 500-kw diesel emergency generators. The new emergency generators would be located in the southern parking lot of the Project Site, approximately 30 meters from the closest residential uses. SCAQMD Rule 1470 establishes emissions limits for emergency

[50] *An alternative scenario involving full electrification of the building mechanical systems has also been evaluated with regard to potential air quality impacts. Refer to Appendix AQ-4 for further discussion.*

generators and provides for more stringent emissions limits when three or more generators are located within 50 meters of sensitive uses (i.e., residences). As the new generators would be located within this distance, the Project would be required to comply with the more stringent Rule 1470 limits. Based on compliance with Rule 1470, TAC emissions would be limited. The existing generator emits approximately 0.12 lbs/day of diesel particulate matter (DPM) during testing operations, while the new generators would each emit an estimated 0.02 lbs/day during testing (conducted one at a time), resulting in a reduction of 0.1 lbs/day of DPM (83 percent reduction of DPM) due to the Project. Testing would only be performed monthly, with engines running for 15 minutes to an hour. ***As such, Project-related TAC impacts during construction and operations would be less than significant.***

Based on the above, the Project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

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

Less Than Significant Impact. No objectionable odors are anticipated because of either construction or operation of the Project. Specifically, construction of the Project would involve the use of conventional building materials typical of construction projects of similar type and size. Any odors that may be generated during construction would be localized and temporary in nature and would not be sufficient to affect a substantial number of people. With respect to Project operation, according to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Project would include a trash compactor within a small enclosed service yard, and medical waste would be sterilized using a self-contained, closed San-I-Pak unit. These facilities would be located and maintained in a manner that promotes odor control and would not result in substantially adverse odor impacts.

Construction and operation of the Project would also comply with SCAQMD Rules 401, 402, and 403, regarding visible emissions violations. SCAQMD Rule 402 provides that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. ***Therefore, the potential odor impact during construction and operation of the Project would be less than significant, and no further analysis is required.***

Based on the above, construction and operation of the Project would not result in other emissions, such as those leading to odors, adversely affecting a substantial number of people, and impacts would be less than significant.

Cumulative Impacts

Less Than Significant Impact. According to SCAQMD, individual projects that exceed 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.[51] As discussed above, the Project's construction-related and operational air quality emissions would be less than significant. Thus, the Project's contribution to cumulative construction-related regional and localized emissions would not be cumulatively considerable and, therefore, would be less than significant.

As discussed above, the Project would result in a less-than-significant impact related to TACs primarily because the duration of construction would be relatively short-term (22 months) in comparison to a long-term (70-year) exposure duration typically used to assess exposure to TACs. With regard to operational TACs, the Project's operational air quality emissions and TACs would not exceed any of the SCAQMD's recommended daily regional or localized thresholds, and, as such, the Project's operational air quality cumulative impacts would be less than significant. As such, the Project's contribution to cumulative impacts related to TACs during construction and operation would not be cumulatively considerable and, thus, would be less than significant.

Conclusion

In conclusion, during construction and operation, the Project's regional, localized, and TAC emissions would not be cumulatively considerable, and cumulative impacts would be less than significant.

F. Greenhouse Gas Impacts

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. As discussed above, the Project's GHG impacts have been evaluated based on the SCAQMD 3,000 MT CO_2e threshold as well as the Project's consistency with statewide, regional, and University of California plans adopted for

[51] *SCAQMD, White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, August 2003, Appendix D.*

the purpose of reducing and/or mitigating GHG emissions. Evaluation of the Project's consistency with plans are discussed under GHG Threshold (b).

This analysis calculates the amount of GHG emissions that would be attributable to the Project using recommended air quality models. A specific discussion regarding potential GHG emissions associated with the construction and operational phases of the Project is provided below.

Construction

GHG emissions from construction activities were forecasted using a reasonable estimate of construction schedule and phasing and applying published GHG emission factors. Construction emissions were calculated using the CalEEMod model. The output values used in this analysis were adjusted to be Project-specific, based on usage rates, type of fuel, and construction schedule. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate GHG emissions values for each construction year.

Project construction is anticipated to occur over approximately 22 months, with completion anticipated by 2028. It is estimated that grading and soil handling activities would be minimal requiring approximately 150 cubic yards of soil export.[52] A summary of construction details (e.g., schedule, equipment mix, and vehicular trips) and CalEEMod modeling input assumptions and output files are provided in Appendix AQ-3. The emissions of GHGs associated with construction of the Project were calculated for each year of construction activity. A summary of GHG emissions for each year of construction is presented in Table 5 on page 38.

[52] *Final earthwork numbers may change slightly based on soil conditions but are expected to remain minimal.*

Table 5
Combined Construction-Related Emissions
($MTCO_2e$)

Year	$MTCO_2e$[a]
2026	376
2027	419
2028	8
Total	**803**
Amortized Over 30 Years[b]	**27**

[a] *$MTCO_2e$ = metric tons of an equivalent mass of carbon dioxide. CO_2e was calculated using CalEEMod and the results are provided in Section 2.0 of the Construction CalEEMod output file within Appendix AQ-3 of this Technical Report.*

[b] *As recommended by SCAQMD, the total GHG construction emissions were amortized over the 30-year lifetime of the project (i.e., total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate that can be added to the Project's operational emissions) in order to determine the Project's annual GHG emissions inventory.*

Source: Eyestone Environmental, 2025.

As presented in Table 5, construction of the Project is estimated to generate a total of 803 metric tons of GHGs measured as an equivalent mass of carbon dioxide (CO_2e). As recommended by SCAQMD, the total GHG construction emissions were amortized over the 30-year lifetime of the Project (i.e., total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate that can be added to the Project's operational emissions) in order to determine the Project's annual GHG emissions inventory.[53] Accordingly, when amortized, Project construction would generate an estimated 27 $MTCO_2e$ per year.

Operation

The Project would mainly include interior and limited exterior improvements to an existing building. The Project would comply with the UC Policy on Sustainable Practices for a minor renovation project, including the requirement to achieve a minimum LEED ID+C Certified rating, although the Project would strive for a Gold rating. The Project would also increase vehicle travel to and from the site. The Project would result in direct and indirect GHG emissions generated by the increase in vehicular trips, as well as operations associated with the proposed uses, including: (1) building operations: emissions associated with space heating and cooling, water heating, and lighting; (2) water: emissions associated with energy used to pump, convey, treat, deliver, and re-treat water; and (3) solid waste: emissions

[53] *SCAQMD Governing Board Agenda Item 31, December 5, 2008.*

associated with waste streams (embodied energy of materials). The Project would comply with the requirements of Title 24, which would serve to reduce GHG emissions.

Operational emissions from the sources described above were estimated using CalEEMod in order to determine the net incremental increase in GHG emissions. The net increase in operational emissions is calculated based on Project operational emissions minus existing operational emissions. Existing uses include a 170,000-gsf research and development building which generate GHG emissions from vehicle trips, energy usage, water consumption and solid waste.

Mobile source emissions are based on the vehicle emission factors from EMFAC and the Project's daily VMT included as Appendix AQ-3 of this Technical Report. The Project's daily VMT was calculated using trip generation provided by Fehr & Peers and default trip lengths contained within CalEEMod. As shown in Table 6 on page 40, the Project, with implementation of the applicable regulatory requirements set forth in Title 24 and design features including the use of 100% renewable electricity and the addition of 28 EV charging spaces, would result in emissions of an estimated 2,357 $MTCO_2e$ annually. Therefore, the Project's GHG emissions would not exceed the SCAQMD 3,000 MT CO2e threshold.

Accordingly, the Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. As such, the impact under Threshold (a) would be less than significant.

Table 6
Annual GHG Emissions Summary—Net Increase (Year 2028)[a]
(metric tons of carbon dioxide equivalent [$MTCO_2e$])

Scope	Project
Mobile	2,589
Area[b]	0
Energy[c]	(228)
Water/Wastewater[e]	(102)
Solid Waste[d]	84
Refrigerant	0
Emergency Generators	195
Electric Vehicle Charging Credit	(207)
Construction	27
Total Emissions	**2,357**
SCAQMD Project Threshold	**3,000**
Exceed Threshold?	**No**

[a] *CO_2e was calculated using CalEEMod and the results are provided in Section 2.0 of the Operation CalEEMod output file within Appendix AQ-3 of this Technical Report. Emissions represent net increase (Project minus Existing uses to be removed)*

[b] *Area source emissions are from landscape equipment. Landscaping activities under the Project would be similar or the same as under the existing uses. Therefore, the net increase in landscaping emissions would be zero.*

[c] *Energy source emissions are based on CalEEMod default electricity and natural gas usage rates.*

[d] *Solid waste emissions are calculated based on CalEEMod default solid waste generation rates.*

[e] *Water/Wastewater emissions are calculated based on CalEEMod default water consumption rates.*

Source: Eyestone Environmental, 2025.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. As previously stated, pursuant to Section 15604.4 of the CEQA Guidelines, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions. As such, the Project's consistency with the UC Policy on Sustainable Practices, CARB 2022 Scoping Plan, and SCAG's 2024–2050 RTP/SCS is discussed below. As a constitutionally autonomous entity, the University does not participate in and is not subject to the regional planning process, and the proposed Project's lack of conflict with the RTP/SCS is presented for informational purposes. It should be noted that the Project's consistency with the 2022 Scoping Plan also satisfies consistency with AB 32 since the 2022 Scoping Plan is based on the overall targets established by AB 32 and SB 32. Consistency with the 2008 and 2017

Scoping Plan is not necessary since both of these plans have been superseded by the 2022 Scoping Plan.

The analysis below describes the extent to which the Project complies with or exceeds the performance-based standards included in the regulations outlined in these plans. As shown herein, the Project would be consistent with the applicable GHG reduction plans and policies.

Consistency with the UC Policy on Sustainable Practices

In June 2004, the University of California developed detailed guidelines for the Policy on Green Building Design and Clean Energy Standards. This comprehensive policy established the UC system as a leader in promoting environmental stewardship among institutions of higher education. Subsequently renamed the Policy on Sustainable Practices, the policy has been revised several times, most recently in April 2024, and has expanded to cover the areas of climate action, sustainable transportation, sustainable building and laboratory operations for campuses, zero waste, sustainable procurement, sustainable food services, sustainable water systems, sustainability at UC Health, general sustainability performance assessment, and human health and well-being. The UC Policy on Sustainable Practices includes climate change goals for the 10 UC campuses and additional health centers that, at a minimum, must meet AB 32 requirements.

The proposed Project incorporates previously adopted PP 4.15-1 from the LRDP MMRP, which ensures implementation of applicable provisions of the UC Policy on Sustainable Practices. The majority of the sustainable practices policies are applicable at the UC-wide or campus-wide level and do not necessarily apply to individual projects. Examples include systemwide targets for emissions reductions, procedures for the purchase of campus fleet vehicles, preparation of CAPs, campus and health system procurements, and campus outreach programs. Following is a discussion of the Project's consistency with those requirements of the UC Policy on Sustainable Practices that apply to individual projects.

The policies and procedures regarding Green Building Design include the following goals applicable to projects that involve a minor renovation of an existing building, such as the proposed Project:

- At a minimum achieve a LEED-ID+C Certified rating and register with the utilities' energy efficiency program, if eligible.
- By 2025, each health location will obtain 100 percent clean electricity.

The Project would be subject to the 2022 Title 24 standards and would be designed to achieve LEED ID+C certification at minimum, while striving for a Gold rating. As identified in Section III, Project Description, of this document, the sustainability features to be incorporated into the Project would include but not be limited to: electrification of certain

HVAC system components to reduce natural gas usage and associated emissions; the use of 100% renewable electricity through SCE's Clean Power Alliance; enhanced commissioning of building mechanical systems to maximize efficiencies; and new efficient emergency generators. Additionally, the Project would incorporate previously adopted water conservation measures (LRDP PP 4.14-2[a] through PP 4.14-2[d]), solid waste conservation measures (LRDP PP 4.14-3), and energy conservation measures (LRDP PP 4.14-9) as identified in Section V.A of this document. Therefore, the Project would comply with relevant UC requirements related to Green Building Design.

Also relevant to the Project, the Sustainable Transportation section of the UC Policy on Sustainable Practices includes strategies for reducing commute emissions. The Sustainable Transportation policy includes goals to:

- Reduce GHG emissions from each location fleet by requiring (after 2023) zero-emission vehicles, plug-in hybrid or dedicated clean transportation fueled vehicles to account for at least 50 percent of all vehicle acquisitions. Additionally, this would be accomplished by the acquisition and/or use of zero-emission or plug-in hybrid vehicles.

- Reduce the percentage of employees and students commuting by single-occupancy vehicles (SOV) by 10 percent relative to the 2015 SOV commute rates by 2025; and (2) have no more than 40 percent of employees and no more than 30 percent of all employees and students commuting to each location by SOV by 2050.

While these goals are typically measured for each academic or health campus rather than individual projects, the Project would support these reduction goals with the addition of 28 EV charging stations, including four for UCLA Health's zero-emission fleet vehicles, within the existing parking lots on-site, which would exceed CALGreen requirements. The Project's convenient access to public transit, TDM measures such as discounted transit passes and carpool planning support, as well as the provision of bicycle parking would result in a reduction of SOVs and thus vehicle trips, VMT, and associated GHG emissions. Therefore, the Project would support Sustainable Transportation goals set forth in the UC Policy on Sustainable Practices.

Sustainability policies specific to UC Health are also established and include the following requirements applicable to the Project:

- Health locations will achieve Practice Greenhealth's award "Greenhealth Partner for Change."

- Health locations will achieve a target of 25 pounds (lbs) of total waste as defined by Practice Greenhealth per Adjusted Patient Day by 2025 and strive for 20 lbs of total waste per Adjusted Patient Day by 2030. In meeting these goals, Health locations will follow the provisions outlined in Section F of UC Policy on Sustainable Practices

(Policy on Zero Waste), including limiting combustion and reducing the use of foam and single-use products.

- Health locations will reduce growth-adjusted potable water consumption 20% by 2020 and 36% by 2025, when compared to a three-year average baseline of FY2005/06, FY2006/07, and FY2007/08.[54]

UCLA Health is a member of Practice Greenhealth, and the Project would comply with applicable requirements to achieve the "Greenhealth Partner for Change" award. The proposed Project would implement UCLA Health's existing programs that reduce the amount of solid waste diverted to landfills during operation, including those detailed in UCLA's Zero Waste Plan. Practice Greenhealth defines total waste as municipal solid waste plus all forms of regulated waste, including but not limited to, regulated medical waste, biohazardous waste, pharmaceutical waste, and universal waste. UCLA's extensive multi-stream waste diversion is accomplished through various recycling and waste management programs, including but not limited to programs for food and beverage containers, plastics, paper, metals, green waste, food waste, construction waste, and electronics. Additional sustainability features incorporated into the Project include the provision of on-site solid waste compaction and sterilization of biohazardous waste, both of which reduce the transportation and associated emissions associated with waste disposal, as well as a reusable sharps container program to reduce waste generation associated with disposable sharps containers. UCLA is able to monitor and enforce compliance with established diversion requirements through review of waste hauler data. Additionally, a minimum of 65 percent of construction waste would be diverted from landfills in order to reduce solid waste disposal, as specified in UCLA's standard design specifications and construction documents.

With respect to water conservation, LRDP PPs 4.14-2(a) through 4.14-(d) are incorporated into the Project and require using low-flow water fixtures, reducing irrigation needs, promptly detecting and repairing water and irrigation pipe leaks, and minimizing the use of water to clean walkways and other hardscape, which would serve to reduce water demands. Additionally, as required by LRDP PP 4.14-2(g), building occupants would be educated on the importance of water conservation measures. As such, the Project would support both the waste reduction and water conservation goals established for UC Health.

In summary, the proposed Project would not conflict with UC Policy on Sustainable Practices and would support achievement of UC's sustainability goals.

Consistency with CARB's 2022 Climate Change Scoping Plan

As discussed in Appendix AQ-1, Regulatory Framework, of this technical report, the Scoping Plan is a strategy that CARB develops and updates at least once every five years, as

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[54] *While this requirement is not measurable for the Project given the lack of appropriate baseline data, it is included herein to convey the water conservation efforts required by the UC Policy on Sustainable Practices.*

required by AB 32. It lays out the transformations needed to reduce GHG emissions and reach the State's climate targets. CARB published the Final 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan Update) in November 2022, the third update to the original plan adopted in 2008.

Appendix D, Local Actions, of the 2022 Scoping Plan Update includes "recommendations intended to build momentum for local government actions that align with the State's climate goals, with a focus on local GHG reduction strategies (commonly referred to as climate action planning) and approval of new land use development projects, including through environmental review under the California Environmental Quality Act (CEQA)." (Page 4 of Appendix D.) Jurisdictions that want to take meaningful climate action aligned with the State's climate goals in the absence of a CEQA-qualified CAP should also consider the three priority areas: transportation electrification, VMT reduction, and building decarbonization. To assist local jurisdictions, the 2022 Scoping Plan Update presents a non-exhaustive list of impactful GHG reduction strategies that can be implemented by local governments within the three priority areas.[55] An evaluation of the goals, plans, and policies implemented by UCLA Health as part of the Project to support the GHG reduction strategies in Scoping Plan's three priority areas is provided below.

- **Transportation Electrification.** As identified above, the Project would include the addition of 28 EV charging stations to the existing parking lots, including four chargers for UCLA Health's zero-emission fleet vehicles. While not specific to the Project, the UC Policy on Sustainable Practices also establishes requirements for the conversion of fleets to zero-emission vehicles, and UCLA Health is required to comply with these requirements.

- **VMT Reduction.** As identified above, the Project area is well served by transit, and the Project incorporates various strategies to reduce SOV travel, vehicular trips, and associated VMT, including pedestrian access improvements, subsidized transit passes, and assistance with carpooling and vanpooling. The Project would also include eight short-term bicycle parking spaces. Further, based on the Project-specific VMT analysis prepared by Fehr & Peers, the Project Site is located within a low VMT area, and the Project would have a less than significant VMT impact.

- **Building Decarbonization.** The priority GHG reduction strategies for local government climate action related to electrification are discussed below and would support the Scoping Plan actions regarding meeting increased demand for electrification without new fossil gas-fire resources and all electric appliances beginning in 2026 (residential) and 2029 (commercial) (see Table 2-1 of the Scoping Plan). California's transition away from fossil fuel–based energy sources will bring the project's GHG emissions associated with building energy use down to zero as our

[55] Refer to the Priority GHG Reduction Strategies for Local Government Climate Action Priority Areas listed in Table 1 of Appendix D, 2022 Scoping Plan Update, November 2022.

electric supply becomes 100 percent carbon free. California has committed to achieving this goal by 2045 through SB 100, the 100 Percent Clean Energy Act of 2018. SB 100 strengthened the State's Renewables Portfolio Standard (RPS) by requiring that 60 percent of all electricity provided to retail users in California come from renewable sources by 2030 and that 100 percent come from carbon-free sources by 2045. The land use sector will benefit from RPS because the electricity used in buildings will be increasingly carbon-free, but implementation does not depend (directly, at least) on how buildings are designed and built.

As previously discussed, the UC Policy on Sustainable Practices requires each campus and health location to obtain 100 percent clean electricity (defined as having carbon intensity factor of less than 150 lbs CO_2e per MWh). The Project would purchase 100% renewable electricity for Project operations. In future years, the SCE will be required to increase the amount of renewable energy in the power mix to comply with SB 100 requirements. The combination of the UC policies and increasing availability of renewable energy will serve to reduce GHG emissions from sources traditionally powered by natural gas. Although the Project would include new natural gas fired boilers, any future replacements would be zero-emissions consistent with SCAQMD Rule 1146.2.[56]

The Project would further support these decarbonization strategies by achieving LEED ID+C certification and striving to achieve a Gold rating. LEED measures incorporated into the Project include water conservation, enhanced insulation, and energy efficiency measures. Additionally, the Project would replace existing fixtures with energy-efficient LED lighting, thus reducing overall energy usage compared to baseline conditions.

In summary, the Project would incorporate a variety of GHG reduction strategies that reflect the Scoping Plan's three priority areas (transportation electrification, VMT reduction, and building decarbonization). As such, the Project would not conflict with CARB's 2022 Climate Change Scoping Plan.

Consistency with the SCAG 2024–2050 RTP/SCS

The primary goal of the 2024–2050 RTP/SCS is to provide a framework for future growth that will decrease per capita GHG emissions from cars and light-duty trucks based on land use planning and transportation options.[57] To accomplish this goal, the 2024–2050 RTP/SCS identifies various strategies to reduce per capita VMT. The 2024–2050 RTP/SCS

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[56] *An alternative scenario involving full electrification of the building mechanical systems has also been evaluated with regard to potential GHG impacts. Refer to Appendix AQ-4 for further discussion.*

[57] *SCAG, Final Connect SoCal 2024 (2024–2050 RTP/SCS), adopted April 2024.*

is expected to help SCAG reach its GHG reduction goals, as identified by CARB, with reductions in per capita passenger vehicle GHG emissions for specified target years.

The 2024–2050 RTP/SCS outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Successful implementation of the 2024–2050 RTP/SCS would result in more complete communities with a variety of transportation and housing choices, while reducing automobile use. With regard to individual developments like the Project, relevant strategies and policies set forth in the 2024–2050 RTP/SCS can be grouped into the following three categories: (1) reduction of vehicle trips and VMT; (2) increased use of alternative fuel vehicles; and (3) improved energy efficiency.[58] Although the Project is not a regional project requiring consistency with the RTP/SCS (and the UC, as a constitutionally autonomous entity does not participate in the RTP/SCS regional planning framework), these strategies and policies are addressed below for informational purposes, and the Project would be consistent with applicable growth forecasts.

Integrated Growth Forecast

The RTP/SCS provides socioeconomic forecast projections of regional population growth. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to a specific area; these are used by SCAG in all phases of implementation and review. As discussed earlier under Air Quality Threshold (a), the Project's increase in employees (conservatively assumed to be all employees) is well within the employment projections for Los Angeles County, as set forth in the 2020–2045 RTP/SCS. Similarly, the Project is consistent with the regional growth projections in the 2024–2050 RTP/SCS. Specifically, the total number of Project employees would represent approximately 0.4 percent of the employment increase projected for Los Angeles County in the 2024–2050 RTP/SCS for the period between 2025 and 2030.[59]

VMT Reduction Strategies and Policies

The Project is designed and would be constructed to incorporate features to support and promote environmental sustainability. The Project represents an adaptive reuse of an existing building in an area well served by public transportation. Additionally, the Project incorporates strategies to reduce the number of single occupancy vehicle trips to the Project

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[58] *SCAG, Draft Program EIR for the 2024–2050 RTP/SC, Section 3.8, Greenhouses, November 2023, pp. 3.8–3.55.*

[59] *According to the Demographic & Growth Forecast technical report included in SCAG's 2024–2050 RTP/SCS, the number of employees in Los Angeles County is estimated to increase from approximately 5,131,000 in 2025 to 5,277,000 in 2030 (an increase of approximately 146,000 employees).*

Site, as discussed previously. Notably, to encourage the use of transit, direct pedestrian access from the nearby Metro C Line Aviation/LAX Station to the Pacific Concourse business park would be provided to facilitate the 'last mile' connection to the Project Site, and discounted transit passes would be available to Project employees as part of UCLA Health's standard TDM program. The Project would also be consistent with the following key GHG reduction strategies in SCAG's 2024–2050 RTP/SCS, which are based on changing the region's land use and travel patterns:[60]

- New job growth focused in High Quality Transit Areas (HQTAs); and
- Limit total acreage of greenfield or otherwise rural land uses converted to urban use.

As discussed above, the Project represents an adaptive reuse of an existing building and involves increased employment within an HQTA that is well served by public transportation.[61] This concentration of development in a highly urbanized area would avoid impacts to greenfield or rural areas and is consistent with the overall growth pattern encouraged in the RTP/SCS. In addition, the Project would incorporate various strategies identified above to reduce SOV trips. These strategies would promote a reduction in VMT and a related reduction in GHG emissions, which would be consistent with the goals of SCAG's 2024–2050 RTP/SCS.

Increased Use of Alternative Fueled Vehicles Policy Initiative

The second category of strategies and policies of the 2024–2050 RTP/SCS, with regard to individual development projects like the Project, is to increase alternative fueled vehicles to reduce per capita GHG emissions. The 2024–2050 RTP/SCS policy initiative focuses on providing charge port infrastructure and accelerating fleet conversion to electric or other near zero-emission technologies. As previously discussed, the Project would provide EV charging stations for both general use and UCLA Health fleet vehicles, exceeding CalGreen requirements.

Energy Efficiency Strategies and Policies

The third category of strategies and policies within the 2024–2050 RTP/SCS applicable to individual developments, such as the Project, involves improving energy efficiency (e.g., reducing energy consumption) to reduce GHG emissions. The 2024–2050 RTP/SCS goal is to actively encourage and create incentives for energy efficiency, where possible. As discussed above, the Project has been designed and would be constructed to incorporate environmentally sustainable building features and construction protocols

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[60] *SCAG, 2024–2050 RTP/SCS, Table 5.1, Connect SoCal 2024 Performance Measures.*

[61] *SCAG, 2024–2050 RTP/SCS, Map 3.4, Priority Development Areas.*

required by the UC Policy on Sustainable Practices. Additionally, the Project would comply with the CALGreen Code.[62] These standards would reduce energy and water usage and waste generation and, thereby, reduce associated GHG emissions and help minimize the impact on natural resources and infrastructure.

Land Use Assumptions

At the regional level, the 2024–2050 RTP/SCS is a plan adopted for the purpose of reducing GHGs.[63] In order to assess the Project's consistency with the 2024–2050 RTP/SCS, this report also analyzes the Project's land use characteristics for consistency with those utilized by SCAG in its SCS. Generally, projects are considered consistent with the provisions and policies of applicable regional land use plans and regulations, such as the 2024–2050 RTP/SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals.

In sum, the Project is the type of land use development that is encouraged by the 2024–2050 RTP/SCS to reduce VMT and expand multi-modal transportation options in order for the region to achieve the GHG reductions from the land use and transportation sectors required by SB 375, which, in turn, advances the State's long-term climate policies.[64] By furthering implementation of SB 375, the Project supports regional land use and transportation GHG reductions consistent with State regulatory requirements. Therefore, the Project would not conflict with the 2024–2050 RTP/SCS.

Conclusion

Based on this analysis, the Project would be consistent with the UC Policy on Sustainable Practices, CARB's 2022 Scoping Plan, and SCAG's 2024–2050 RTP/SCS and, therefore, would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. As such, the Project's impact under Threshold (b) would be less than significant.

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[62] *California Building Standards Commission, 2022 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11, effective January 1, 2023.*

[63] *As part of the State's mandate to reduce per-capita GHG emissions from automobiles and light trucks, the 2024–2050 RTP/SCS presents strategies and tools that are consistent with local jurisdictions' land use policies and incorporates practices to achieve the state-mandated reductions in GHG emissions at the regional level through reduced per-capita vehicle miles traveled.*

[64] *As discussed above, SB 375 legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32.*

UCLA Health Sports Medicine Institute Project (5210 Pacific Concourse Tenant Improvements)

Technical Appendix for Air Quality and Greenhouse Emissions

- Appendix AQ-1: Regulatory Framework
- Appendix AQ-2: Air Quality and Greenhouse Gas Methodology
- Appendix AQ-3: Air Quality and Greenhouse Gas Worksheets
    - Summary of Criteria Air Pollutant Emissions
    - Localized Significance Threshold (LST) Calculation Worksheets
    - Summary of Construction Assumptions
    - Trip Generation Summary
    - GHG Emissions Summary
    - Electric Vehicle Charging Calculations
    - SB 100
    - Natural Gas Boiler Calculations
- CalEEMod Outputs
    - Existing Operations at Buildout Year
    - Project Construction and Operations
    - Project Construction Onsite

- Appendix AQ-4: Evaluation of an All-Electric Building

UCLA Health Sports Medicine Institute Project (5210 Pacific Concourse Tenant Improvements)

Appendix AQ-1: Regulatory Framework

- Appendix AQ-1: Regulatory Framework

Air Quality Regulatory Framework

There are several plans, regulations, and programs that include policies, requirements, and guidelines regarding air quality at the federal, state, regional, and local levels. As described below, these plans, guidelines, and laws include the following:

- Federal Clean Air Act
  - National Ambient Air Quality Standards
- California Clean Air Act
  - California Ambient Air Quality Standards
- California Code of Regulations
- State Programs for Toxic Air Contaminants
- State Diesel Risk Reduction Program
- South Coast Air Quality Management District
  - Air Quality Management Plan
  - Air Quality Guidance Documents
  - Rules and Regulations
- Southern California Association of Governments Regional Transportation Plan/ Sustainable Communities Strategy

(1) Federal

(a) Federal Clean Air Act

The federal Clean Air Act (CAA) was enacted in 1970 and has been amended numerous times in subsequent years, with the latest amendments occurring in 1990.[1] The CAA is the comprehensive federal law that regulates air emissions in order to protect public health and welfare.[2] The USEPA is responsible for the implementation and enforcement of the CAA, which establishes the NAAQS, specifies future dates for achieving compliance, and requires the USEPA to designate areas as attainment, nonattainment, or maintenance. The CAA also mandates that each state submit and implement a State Implementation Plan (SIP) for each criteria pollutant for which the state has not achieved the applicable NAAQS. The

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[1] *42 United States Code §7401 et seq., 1970.*

[2] *USEPA, Summary of the Clean Air Act, www.epa.gov/laws-regulations/summary-clean-air-act, accessed January 16, 2025.*

SIP includes pollution control measures that demonstrate how the standards for those pollutants will be met. The sections of the CAA most applicable to land use development projects include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).[3]

Title I requirements are implemented for the purpose of attaining NAAQS for criteria air pollutants. Table 1 on page 3 shows the NAAQS currently in effect for each criteria pollutant and their corresponding attainment status. The Air Basin fails to meet national standards for O_3 and $PM_{2.5}$ and, therefore, is considered a federal "non-attainment" area for these pollutants. In addition, Los Angeles County fails to meet the national standard for Pb and, therefore, is considered a federal non-attainment area for Pb.

Title II pertains to mobile sources, which includes on-road vehicles (e.g., cars, buses, motorcycles) and non-road vehicles (e.g., aircraft, trains, construction equipment). 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 NAAQS and the CAAQS for the California criteria air pollutants (discussed below) have been set at levels considered safe to protect public health, including the health of sensitive populations and to protect public welfare.

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[3] *USEPA, Clean Air Act Overview, Clean Air Act Table of Contents by Title, Last Updated January 3, 2017. www.epa.gov/clean-air-act-overview/clean-air-act-text, accessed January 16, 2025. As shown therein, Title I addresses nonattainment areas and Title II addresses mobile sources.*

Table 1
Ambient Air Quality Standards

Pollutant	Averaging Period	Federal Standard[a,b]	California Standard[a,b]	South Coast Air Basin Attainment Status[c]	
				Federal Standard[d]	California Standard[d]
Ozone (O_3)	1 hour	—	0.09 ppm (180 µg/m^3)	—	Non-Attainment
	8 hour	0.070 ppm (137 µg/m^3)	0.07 ppm (137 µg/m^3)	Non-Attainment (Extreme)[e]	Non-Attainment
Respirable Particulate Matter (PM_{10})	24 hour	150 µg/m^3	50 µg/m^3	Attainment	Non-Attainment
	Annual	—	20 µg/m^3		
Fine Particulate Matter ($PM_{2.5}$)	24 hour	35 µg/m^3	—	Non-Attainment (Serious)[f]	Non-Attainment
	Annual	12 µg/m^3	12 µg/m^3		
Carbon MoNO$_X$ide (CO)	1 hour	35 ppm (40 mg/m^3)	20 ppm (23 mg/m^3)	Attainment	Attainment
	8 hour	9 ppm (10 mg/m^3)	9.0 ppm (10 mg/m^3)		
Nitrogen Dioxide (NO_2)	1 hour	0.10 ppm (188 µg/m^3)	0.18 ppm (339 µg/m^3)	Unclassified/ Attainment	Attainment
	Annual	0.053 ppm (100 µg/m^3)	0.030 ppm (57 µg/m^3)		
Sulfur Dioxide (SO_2)	1 hour	0.075 ppm (196 µg/m^3)	0.25 ppm (655 µg/m^3)	Unclassified/ Attainment	Attainment
	24 hour	0.14 ppm (365 µg/m^3)	0.04 ppm (105 µg/m^3)		
	Annual	0.03 ppm (80 µg/m^3)	—		
Lead (Pb)	30-day average	—	1.5 µg/m^3	Partial Non-Attainment[g]	Attainment
	Rolling 3-month average	0.15 µg/m^3	—		
Sulfates	24 hour	—	25 µg/m^3	—	Attainment
Hydrogen Sulfide (H_2S)	1 hour	—	0.03 ppm (42 µg/m^3)	—	Unclassified

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ppm = parts per million by volume

µg/m^3 = micrograms per cubic meter

[a] *An ambient air quality standard is a concentration level expressed in either ppm or µg/m^3 and averaged over a specific time period (e.g., 1 hour). The different averaging times and concentrations are meant to protect against different exposure effects. Some ambient air quality standards are expressed as a concentration that is not to be exceeded. Others are expressed as a concentration that is not to be equaled or exceeded.*

[b] *Ambient Air Quality Standards based on the 2022 AQMP.*

[c] *"Attainment" means that the regulatory agency has determined based on established criteria, that the Air Basin meets the identified standard. "Non-attainment" means that the regulatory agency has determined*

Table 1 (Continued)
Ambient Air Quality Standards

Pollutant	Averaging Period	Federal Standard[a,b]	California Standard[a,b]	South Coast Air Basin Attainment Status[c]	
				Federal Standard[d]	California Standard[d]
that the Air Basin does not meet the standard. "Unclassified" means there is insufficient data to designate an area, or designations have yet to be made.					
[d] *California and Federal standard attainment status based on SCAQMD's 2022 AQMP.*					
[e] *Extreme nonattainment classification is defined as an area with a design value (ambient concentration) exceeding 0.163 ppm. Areas classified as "extreme" nonattainment have the longest timeframe to achieve NAAQS for ozone. https://www.epa.gov/green-book/ozone-designation-and-classification-information*					
[f] *Under a Serious nonattainment classification the EPA has determined a particular air basin (South Coast Air Basin) cannot practicably attain $PM_{2.5}$ NAAQS by the applicable Moderate area attainment date. Moderate nonattainment is defined as an area which exceeds $PM_{2.5}$ NAAQS.*					
[g] *An attainment re-designation request is pending.*					
Source: Eyestone Environmental, 2025.					

(2) State

(a) California Clean Air Act

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practicable date. CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both state and federal air pollution control programs within California. In this capacity, CARB conducts research, sets the CAAQS, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. Table 1 on page 3 includes the CAAQS currently in effect for each of the criteria pollutants, as well as other pollutants recognized by the State. As shown in Table 1, the CAAQS include more stringent standards than the NAAQS. The Air Basin fails to meet state standards for O_3, PM_{10}, and $PM_{2.5}$ and, therefore, is considered a state "non-attainment" area for these pollutants.

(b) 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 Title 13 of the CCR states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to 5 minutes at any location. In addition, Section 93115 in Title 17 of the CCR states

that operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emissions standards.

(c) State Programs for Toxic Air Contaminants

The California Air Toxics Program is an established two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and OEHHA determine if a substance should be formally identified, or "listed," as a TAC in California. 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 stationary and mobile sources, including On-Road and Off-Road Vehicle Rules. These ATCMs include measures, such as limits on heavy-duty diesel motor vehicle idling and emission standards for off-road diesel construction equipment, in order to reduce public exposure to DPM and other TACs. These actions are also supplemented by the Assembly Bill (AB) 2588 Air Toxics "Hot Spots" program and Senate Bill (SB) 1731, which require facilities to report their air toxics emissions, assess health risks, notify nearby residents and workers of significant risks if present, and reduce their risk through implementation of a risk management plan. SCAQMD has further adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

(d) State Diesel Risk Reduction Program

CARB identified particulate emissions from diesel-fueled engines as TACs in August 1998. Following the identification process, CARB was required by law to determine if there is a need for further control, which moved us into the risk management phase of the program. CARB developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and the Vehicles and the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines*. The Diesel Advisory Committee 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 DPM 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 DPM emissions.

(3) Regional

The SCAQMD is primarily responsible for planning, implementing, and enforcing air quality standards for the South Coast Air Basin. The Air Basin is a subregion within the

western portion of the SCAQMD jurisdiction as the SCAQMD also regulates portions of the Salton Sea Air Basin and Mojave Desert Air Basin within Riverside County.

(a) Air Quality Management Plan and Regional Transportation Plan/ Sustainable Communities Strategy

To meet the NAAQS and CAAQS, the SCAQMD has adopted a series of AQMPs, which serve as a regional blueprint to develop and implement an emission reduction strategy that will bring the area into attainment with the standards in a timely manner. The AQMPs are incorporated into the SIP. The 2022 AQMP includes strategies to ensure that rapidly approaching attainment deadlines for O_3 and $PM_{2.5}$ are met and that public health is protected to the maximum extent feasible. The most significant air quality challenge in the Air Basin is to reduce NO_X emissions[4] sufficiently to meet the O_3 standard deadlines as NO_X plays a critical role in the creation of O_3. Since NO_X emissions also lead to the formation of $PM_{2.5}$, the NO_X reductions needed to meet the O_3 standards will likewise lead to improvement of $PM_{2.5}$ levels and attainment of $PM_{2.5}$ standards.[5] The 2022 AQMP is focused on attaining the 2015 8-hour O_3 standard of 70 parts per billion. The 2022 AQMP builds upon measures already in place from previous AQMPs and includes a variety of additional strategies, such as regulation, accelerated development of available clean technologies, incentives and other CAA measures to achieve this standard.[6]

The SCAQMD's strategy to meet the NAAQS and CAAQS distributes the responsibility for emission reductions across federal, state, and local levels and industries. The 2022 AQMP is composed of stationary and mobile source emission reductions from traditional regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile source strategies, and reductions from federal sources, which include aircraft, locomotives and ocean-going vessels. These strategies are to be implemented in partnership with CARB and USEPA.

The 2022 AQMP also incorporates the transportation strategy and transportation control measures from the SCAG 2020–2045 RTP/SCS Plan.[7] 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. Pursuant to California Health and Safety Code Section 40460, SCAG has the responsibility of preparing and approving the portions of the AQMP relating

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[4] *NO_X emissions are a precursor to the formation of both O_3 and secondary $PM_{2.5}$.*

[5] *Estimates are based on the inventory and modeling results and are relative to the baseline emission levels for each attainment year (see Final 2022 AQMP for detailed discussion).*

[6] *SCAQMD, Final 2022 AQMP, December 2022, p. ES-2.*

[7] *SCAG, Final 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments, adopted September 3, 2020.*

to the regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. 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.

The RTP/SCS includes transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained in the AQMP. The SCAQMD combines its portion of the AQMP with those prepared by SCAG.[8] The RTP/SCS and Transportation Control Measures, included as Appendix IV-C of the 2022 AQMP, are based on the 2020–2045 RTP/SCS.

The 2022 AQMP forecasts the 2037 emissions inventories "with growth" based on SCAG's 2020–2045 RTP/SCS. The region is projected to see a 12-percent growth in population, a 17-percent growth in housing units, an 11-percent growth in employment, and a 5-percent growth in VMT between 2018 and 2037. Despite regional growth in the past, air quality has improved substantially over the years, primarily due to the effects of air quality control programs at the local, state, and federal levels.[9]

On April 4, 2024, SCAG adopted the 2024–2050 RTP/SCS. Similar to the 2020–2045 RTP/SCS, the 2024–2050 RTP/SCS is a long-term plan for the Southern California region that details investment in the transportation system and development in communities to meet the existing and future needs of the region through projects, investments, policies and strategies. While the 2024–2050 RTP/SCS remains focused on its core responsibilities and on the requirements of comprehensive regional transportation planning integrated with the development of a sustainable communities strategy, it also encompasses a holistic approach to programs and strategies that support success of the RTP/SCS, such as workforce development, broadband and mobility hubs. The primary goals of the 2024–2050 RTP/SCS include:

- Mobility: Build and maintain an integrated multimodal transportation network;
- Communities: Develop, connect and sustain livable and thriving communities;
- Environment: Create a healthy region for the people of today and tomorrow; and
- Economy: Support a sustainable, efficient and productive regional economic environment that provides opportunities for all people in the region.

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[8] *SCAQMD, Final 2022 AQMP, December 2022, p. ES-4.*

[9] *SCAQMD, Final 2022 AQMP, December 2022, Figure 1-4.*

In addition, as discussed above, SCAG's 2020–2045 RTP/SCS forecasted population, housing, employment growth data were used to characterize regional growth in the 2022 AQMP.

(b) SCAQMD Air Quality Guidance Documents

The SCAQMD published the *CEQA Air Quality Handbook* (approved by the SCAQMD's Governing Board in 1993) to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts.[10] The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses. However, the SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD has provided supplemental guidance on the SCAQMD website to be used in conjunction with the Handbook.[11]

The SCAQMD has also adopted land use planning guidelines in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, which considers impacts to sensitive receptors from facilities that emit TAC emissions.[12] SCAQMD's siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity to freeways and high-traffic roads, and the same siting criteria for distribution centers and dry-cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. The SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies.

The SCAQMD has published a guidance document called the Final Localized Significance Threshold Methodology for CEQA evaluations that is intended to provide guidance when evaluating the localized effects from mass emissions during construction or operation of a project.[13] The SCAQMD adopted additional guidance regarding $PM_{2.5}$ emissions in a document called *Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds*.[14] The latter document has been incorporated by the

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[10] *SCAQMD, CEQA Air Quality Handbook, April 1993.*

[11] *SCAQMD, Air Quality Analysis Handbook, www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook#, accessed January 16, 2025.*

[12] *SCAQMD, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, 2005.*

[13] *SCAQMD, Final Localized Significance Threshold Methodology, June 2003 (revised July 2008).*

[14] *SCAQMD, Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, 2006.*

SCAQMD into its CEQA significance thresholds and *Final Localized Significance Threshold Methodology*.

(c) SCAQMD Rules and Regulations

The SCAQMD has adopted several rules and regulations to regulate sources of air pollution in the Air Basin and to help achieve air quality standards for land use development projects, which include, but are not limited to, the following:

Regulation IV—Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events. The following is a list of rules that apply to the Project:

- **Rule 401—Visible Emissions:** This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour, which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.

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

- **Rule 403—Fugitive Dust:** This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM_{10} emissions to less than 50 micrograms per cubic meter ($\mu g/m^3$), and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Best available control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers, and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the USEPA.

Regulation XI—Source Specific Standards: Regulation XI sets emissions standards for specific sources. The following is a list of rules that may apply to the Project:

- **Rule 1113—Architectural Coatings:** This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

- **Rule 1138—Control of Emissions from Restaurant Operations:** This rule specifies PM and VOC emissions and odor control requirements for commercial cooking operations that use chain-driven charbroilers to cook meat.

- **Rule 1146.2—Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters:** This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_X emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.

- **Rule 1186—PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations:** This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM_{10} emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Regulation XIII—New Source Review (NSR): Regulation XIII sets requirements for preconstruction review required under both federal and state statutes for new and modified sources located in areas that do not meet the CAA standards ("non-attainment" areas). NSR applies to both individual permits and entire facilities. Any permit that has a net increase in emissions is required to apply Best Available Control Technology (BACT). Facilities with a net increase in emissions are required to offset the emission increase by use of Emission Reduction Credits (ERCs). The regulation provides for the application, eligibility, registration, use and transfer of ERCs. For low emitting facilities, the SCAQMD maintains an internal bank that can be used to provide the required offsets. In addition, certain facilities are subject to provisions that require public notice and modeling analysis to determine the downwind impact prior to permit issuance.

Regulation XIV—Toxics and Other Non-Criteria Pollutants: Regulation XIV sets requirements for new permit units, relocations, or modifications to existing permit units, which emit TACs or other non-criteria pollutants. The following is a list of rules, which may apply to the Project:

- **Rule 1403—Asbestos Emissions from Demolition/Renovation Activities:** This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

- **Rule 1470—Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines:** This rule applies to stationary compression ignition (CI) engines greater than 50 brake horsepower and sets limits on emissions and operating hours. In general, new stationary emergency

standby diesel-fueled engines greater than 50 brake horsepower are not permitted to operate more than 50 hours per year for maintenance and testing.

GHG Regulatory Framework

There are a number of plans, regulations, programs, and agencies that provide policies, requirements, and guidelines regarding GHG emissions at the federal, State, regional, and local levels. As described below, these plans, guidelines, and laws include the following:

- Federal Clean Air Act
- Federal Corporate Average Fuel Economy Standards
- Federal Energy Independence and Security Act
- California Air Resources Board
- California Greenhouse Gas Reduction Targets
- California Global Warming Solutions Act (AB 32)
- California Climate Change Scoping Plan
- California Cap-and-Trade Program
- California Emission Performance Standards
- California Renewables Portfolio Standard Program
- California Climate Crisis Act (AB 1279)
- California Pavley Standards
- California Low Carbon Fuel Standard
- California Advanced Clean Cars Regulations
- California Sustainable Communities and Climate Protection Act (SB 375)
- California Senate Bill 743
- California Executive Order N-79-20
- California Executive Order B-55-18
- California Appliance Efficiency Regulations

- California Title 24, Building Standards Code and California Green Building Standards Code
- California CEQA Guidelines
- South Coast Air Quality Management District
- Southern California Association of Governments Regional Transportation Plan/ Sustainable Communities Strategy
- University of California Policy on Sustainable Practices

(1) Federal

(a) Federal Clean Air Act

The USEPA is responsible for implementing federal policy to address GHGs. The United States Supreme Court (Supreme Court) ruled in *Massachusetts v. Environmental Protection* Agency, 127 S.Ct. 1438 (2007), that CO_2 and other GHGs are pollutants under the federal Clean Air Act (CAA), which the USEPA must regulate if it determines they pose an endangerment to public health or welfare. In December 2009, the USEPA issued an endangerment finding for GHGs under the CAA, setting the stage for future regulation.

The federal government administers a wide array of public-private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, CH_4 and other non-CO_2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The USEPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the ENERGY STAR labeling system for energy-efficient products) play a significant role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

(b) Corporate Average Fuel Economy (CAFE) Standards

In response to the *Massachusetts v. Environmental Protection Agency* ruling, President George W. Bush issued Executive Order 13432 in 2007, directing the USEPA, the United States Department of Transportation (USDOT), and the United States Department of Energy (USDOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. The National Highway Traffic Safety Administration (NHTSA) subsequently issued multiple final rules regulating fuel efficiency for and GHG emissions from cars and light-duty trucks for model years 2012–2016 and 2017–2021. In March 2020, the USDOT and the USEPA issued the final Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which amends existing CAFE standards and tailpipe CO_2 emissions standards for passenger cars and light trucks and establishes new standards

covering model years 2021 through 2026.[15] These standards set a combined fleet wide average of 36.9 to 37 miles per gallon (mpg) for the model years 2021 through 2026.[16] In February 2022, the USEPA issued the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards.[17] This final rule revises current GHG standards for vehicles in model year 2023 through model year 2026 and establishes the most stringent GHG standards ever set for the light-duty vehicle sector that are expected to result in average fuel economy label values of 40 mpg, while the standards they replace (i.e., the SAFE rule standards) would achieve only 32 mpg in model year 2026 vehicles.[18]

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011 the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the USEPA, this regulatory program would reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent nationwide over the 2010 baselines. Building on the first phase of standards, in August 2016, the USEPA and NHTSA finalized Phase 2 standards for medium and heavy-duty vehicles through model year 2027 that will improve fuel efficiency and cut carbon pollution. The Phase 2 standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons nationwide annually.[19]

(c) Energy Independence and Security Act

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation,

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[15] *USEPA, Final Rule for Model Year 2021–2026 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, published April 30, 2020.*

[16] *National Highway Traffic Safety Administration (NHTSA), Corporate Average Fuel Economy Standards, www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy, accessed January 9, 2025.*

[17] *USEPA, Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards: Regulatory Update Vol. 86, No. 248 Federal Register page 74434, December 30, 2021.*

[18] *USEPA, Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards: Regulatory Update, December 2021.*

[19] *USEPA, EPA and NHTSA Adopt Standards to Reduce GHG and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles for Model Year 2018 and Beyond, August 2016.*

energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;

- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and

- While superseded by the USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."[20]

(2) State

(a) California Air Resources Board

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and State air pollution control programs within California. In this capacity, CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts. The SIP is required for the State to take over implementation of the federal CAA. CARB adopted the 2022 SIP in September 2022.[21] CARB also has primary responsibility for adopting regulations to meet the State's goal of reducing GHG emissions. The State has met its goals to reduce GHG emissions to 1990 levels by 2020.[22] Subsequent State goals include reducing GHG emissions to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050.

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[20] *A green job, as defined by the United States Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.*

[21] *CARB, 2022 State Implementation Program, https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy, accessed January 9, 2025.*

[22] *CARB, Final 2022 Climate Change Scoping Plan (Chapter 1), adopted December 2022.*

(b) California Greenhouse Gas Reduction Targets

(i) Executive Order S-3-05

Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

In accordance with Executive Order S-3-05, the Secretary of CalEPA is required to coordinate efforts of various agencies, which comprise the California Climate Action Team (CAT), in order to collectively and efficiently reduce GHGs. The CAT provides periodic reports to the Governor and Legislature on the state of GHG reductions in California, as well as strategies for mitigating and adapting to climate change.

The CAT stated that smart land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development (TOD), and encourage high-density residential/commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce, and socioeconomic needs for the full spectrum of the population.

(ii) Executive Order B-30-15

On April 29, 2015, Governor Jerry Brown issued Executive Order B-30-15. Therein, the Governor directed the following:

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of CO2e (MMTCO2e).

(iii) Executive Order B-55-18

Executive Order B-55-18, issued by Governor Jerry Brown in September 2018, establishes a new Statewide goal to achieve carbon neutrality as soon as possible, but no later than 2045, and achieve and maintain net negative emissions thereafter. Based on this executive order, CARB would work with relevant State agencies to develop a framework for

implementation and accounting that tracks progress toward this goal, as well as ensuring future scoping plans identify and recommend measures to achieve the carbon neutrality goal.

In October 2020, CARB released a study, which evaluated three scenarios that achieve carbon neutrality in California by 2045. The study was used by CARB in development of the 2022 Scoping Plan.[23] More ambitious carbon reduction scenarios that achieve carbon neutrality prior to 2045 may be considered as part of future analyses by the State.

The scenarios analyzed to achieve carbon neutrality include a High Carbon Dioxide Removal (CDR) scenario, Zero Carbon Energy scenario, and a Balanced scenario. The High CDR scenario achieves GHG reductions by relying on CO_2 removal strategies. The Zero Carbon Energy scenario is based on the assumption of zero-fossil fuel emissions by 2045. The Balanced scenario represents a middle point between the High CDR scenario and Zero Carbon Energy scenario. The scenarios would achieve at least an 80-percent reduction in GHGs by 2045, relative to 1990 levels. Remaining CO_2 would be reduced to zero by applying CO_2 removal strategies, including sinks from natural and working lands and negative emissions technologies, such as direct air capture.[24,25]

Under each of these scenarios, CARB proposed reduction strategies for various sectors that contribute GHG emissions throughout the State. Although specific details are not yet available for the GHG reduction measures discussed above, implementation of these measures would require regulations to be enforced by the State.

(c) California Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code (HSC), Division 25.5—California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020, which the State has achieved. HSC Division 25.5 defines regulated GHGs as CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6 and represents the first enforceable Statewide program to limit emissions of these GHGs from all major industries, with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under HSC Division 25.5, CARB has the primary responsibility for reducing GHG

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[23] *Energy+Environmental Economics (E3), Achieving Carbon Neutrality in California, PATHWAYS Scenarios Developed for the California Air Resources Board, October 2020.*

[24] *Sinks are defined as natural or artificial reservoirs that accumulate and store a carbon-containing chemical compound for an indefinite period.*

[25] *E3, Achieving Carbon Neutrality in California, PATHWAYS Scenarios Developed for the California Air Resources Board, October 2020, p. 22.*

emissions. CARB is required to adopt rules and regulations directing State actions that would achieve GHG emissions reductions.

To achieve these goals, AB 32 mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce Statewide GHG emissions from stationary sources consistent with the CAT strategies, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. In order to achieve the reduction targets, AB 32 requires CARB to adopt rules and regulations in an open public process that achieve the maximum technologically feasible and cost-effective GHG reductions.[26]

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Jerry Brown. SB 32 and AB 197 amend HSC Division 25.5, establish a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and include provisions to ensure that the benefits of State climate policies reach disadvantaged communities. The new goals outlined in SB 32 update the scoping plan requirement of AB 32 and involve increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

AB 197, signed September 8, 2016, is a bill associated with SB 32, which prioritizes efforts to cut GHG emissions in low-income and minority communities. AB 197 requires CARB to make available, and update at least annually, on its website the emissions of GHGs, criteria pollutants, and toxic air contaminants for each facility that reports to CARB and air districts. In addition, AB 197 adds two members of the Legislature to the CARB board as ex officio, non-voting members and creates the Joint Legislative Committee on Climate Change Policies to ascertain facts and make recommendations to the Legislature and the houses of the Legislature concerning the State's programs, policies, and investments related to climate change.

(d) Climate Change Scoping Plan

The Scoping Plan is a GHG reduction roadmap developed and updated by CARB at least once every five years, as required by AB 32. It lays out the transformations needed across various sectors to reduce GHG emissions and reach the State's climate targets. CARB adopted the Final 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) in December 2022, as the third update to the initial plan that was adopted in 2008. The initial 2008 Scoping Plan laid out a path to achieve the AB 32 target of returning to 1990

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[26] *CARB's list of discrete early action measures that could be adopted and implemented before January 1, 2010, was approved on June 21, 2007. The three adopted discrete early action measures are: (1) a low-carbon fuel standard, which reduces carbon intensity in fuels Statewide; (2) reduction of refrigerant losses from motor vehicle air conditioning system maintenance; and (3) increased methane capture from landfills, which includes requiring the use of state-of-the-art capture technologies.*

levels of GHG emissions by 2020, a reduction of approximately 15 percent below business as usual activities.[27] The 2008 Scoping Plan included a mix of incentives, regulations, and carbon pricing, laying out the portfolio approach to addressing climate change and clearly making the case for using multiple tools to meet California's GHG targets. The 2013 Scoping Plan Update (adopted in 2014) assessed progress toward achieving the 2020 target and made the case for addressing short-lived climate pollutants (SLCPs).[28] The 2017 Scoping Plan Update shifted the focus to the newer SB 32 goal of a 40-percent reduction below 1990 levels by 2030 by laying out a detailed cost-effective and technologically feasible path to this target, and also assessed progress toward achieving the AB 32 goal of returning to 1990 GHG levels by 2020. The 2020 goal was ultimately reached in 2016, four years ahead of the schedule called for under AB 32.

The 2022 Scoping Plan is the most comprehensive and far-reaching Scoping Plan developed to date. It identifies a technologically feasible, cost-effective, and equity-focused path to achieve new targets for carbon neutrality by 2045 and to reduce anthropogenic GHG emissions to at least 85 percent below 1990 levels, while also assessing the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan.[29] The 2030 target is an interim but important stepping stone along the critical path to the broader goal of deep decarbonization by 2045. The relatively longer path assessed in the 2022 Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts to reduce GHGs and air pollution, while identifying new clean technologies and energy. Given the focus on carbon neutrality, the 2022 Scoping Plan also includes discussion for the first time of the natural and working lands sectors as sources for both sequestration and carbon storage, and as sources of emissions as a result of wildfires. The estimated statewide GHG emissions with and without reduction measures in the 2022 Scoping Plan are provided in Table 2 on page 19.

The 2022 Scoping Plan reflects existing and recent direction in the Governor's Executive Orders and State Statutes, which identify policies, strategies, and regulations in support of and implementation of the Scoping Plan. Among these include Executive Order B-55-18 and AB 1279 (The California Climate Crisis Act), which identify the 2045 carbon neutrality and GHG reduction targets required for the Scoping Plan.

Table 3 on page 20 provides a summary of major climate legislation and executive orders issued since the adoption of the 2017 Scoping Plan.

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[27] *CARB, Climate Change Scoping Plan: A Framework for Change, December 2008.*

[28] *CARB, First Update to the Climate Change Scoping Plan: Building on the Framework, 2014.*

[29] *CARB, California's 2017 Climate Change Scoping Plan, November 2017.*

Table 2
Estimated Statewide Greenhouse Gas Emissions With and without Reduction Measures in the 2022 Scoping Plan

Emissions Scenario	GHG Emissions ($MMTCO_2e$)
2019	
2019 State GHG Emissions	404
2030	
2030 Business-As-Usual (BAU) Forecast	312
2030 GHG Emissions without Carbon Removal and Capture	233
2030 GHG Emissions with Carbon Removal and Capture	226
2030 Emissions Target Set by AB 32 (i.e., 1990 level by 2030)	260
Reduction below BAU necessary to achieve 1990 levels by 2030	52 (16.7%)[a]
2045	
2045 BAU Forecast	266
2045 GHG Emissions without Carbon Removal and Capture	72
2045 GHG Emissions with Carbon Removal and Capture	(3)

$MMTCO_2e$ = million metric tons of carbon dioxide equivalents; parenthetical numbers represent negative values.

[a] *312 – 260 = 52. 52 / 312 = 16.7%*

Source: CARB, Final 2022 Climate Change Scoping Plan, adopted December 2022.

The 2022 Scoping Plan Scenario identifies the need to accelerate AB 32's 2030 target, from 40 percent to 48 percent below 1990 levels. The Cap-and-Trade Program continues to play a large factor in the reduction of near-term emissions for meeting the 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet these GHG reduction goals and achieve carbon neutrality no later than 2045. The 2022 Scoping Plan approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology. The Scoping Plan Scenario is summarized in Table 2-1 starting on page 72 of the Scoping Plan. It includes references to relevant statutes and executive orders, although it is not comprehensive of all existing new authorities for directing or supporting the actions described.

Table 3
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
AB 1279 (Muratsuchi, Chapter 337, Statutes of 2022) *The California Climate Crisis Act*	AB 1279 establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that the Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO_2 removal solutions and carbon capture, utilization, and storage (CCUS) technologies. This bill is implemented through the 2022 Scoping Plan.
SB 905 (Caballero, Chapter 359, Statutes of 2022) *Carbon Capture, Removal, Utilization, and Storage Program*	SB 905 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate CCUS and carbon dioxide removal (CDR) projects and technology. The bill requires CARB, on or before January 1, 2025, to adopt regulations creating a unified state permitting application for approval of CCUS and CDR projects. The bill also requires CNRA to publish a framework for governing agreements for two or more tracts of land overlying the same geologic storage reservoir for the purposes of a carbon sequestration project. The 2022 Scoping Plan modeling reflects both CCUS and CDR contributions to achieve carbon neutrality.
SB 846 (Dodd, Chapter 239, Statutes of 2022) *Diablo Canyon Powerplant: Extension of Operations*	SB 846 extends the Diablo Canyon Power Plant's sunset date by up to five additional years for each of its two units and seeks to make the nuclear power plant eligible for federal loans. The bill requires that the California Public Utilities Commission (CPUC) not include and disallow a load-serving entity from including in their adopted resource plan, the energy, capacity, or any attribute from the Diablo Canyon power plant. The 2022 Scoping Plan explains the emissions impact of this legislation.
SB 1020 (Laird, Chapter 361, Statutes of 2022) *Clean Energy, Jobs, and Affordability Act of 2022*	SB 1020 adds interim renewable energy and zero carbon energy retail sales of electricity targets to California end-use customers set at 90 percent in 2035 and 95 percent in 2040. It accelerates the timeline required to have 100 percent renewable energy and zero carbon energy procured to serve state agencies from the original target year of 2045 to 2035. This bill requires each state agency to individually achieve the 100 percent goal by 2035 with specified requirements. This bill requires the CPUC, California Energy Commission (CEC), and CARB, on or before December 1, 2023, and annually thereafter, to issue a joint reliability progress report that reviews system and local reliability. The bill also modifies the requirement for CARB to hold a portion of its Scoping Plan workshops in regions of the state with the most significant exposure to air pollutants by further specifying that this includes communities with minority populations or low-income communities in areas designated as being in extreme federal non-attainment.

Table 3 (Continued)
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
	The 2022 Scoping Plan describes the implications of this legislation on emissions.
SB 1137 (Gonzales, Chapter 365, Statutes of 2022) *Oil & Gas Operations: Location Restrictions: Notice of Intention: Health protection zone: Sensitive receptors*	SB 1137 prohibits the development of new oil and gas wells or infrastructure in health protection zones, as defined, except for purposes of public health and safety or other limited exceptions. The bill requires operators of existing oil and gas wells or infrastructure within health protection zones to undertake specified monitoring, public notice, and nuisance requirements. The bill requires CARB to consult and concur with the California Geologic Energy Management Division (CalGEM) on leak detection and repair plans for these facilities, adopt regulations as necessary to implement emission detection system standards, and collaborate with CalGEM on public access to emissions detection data.
SB 1075 (Skinner, Chapter 363, Statutes of 2022) *Hydrogen: Green Hydrogen: Emissions of Greenhouse Gases*	SB 1075 requires CARB, by June 1, 2024, to prepare an evaluation that includes: policy recommendations regarding the use of hydrogen, and specifically the use of green hydrogen, in California; a description of strategies supporting hydrogen infrastructure, including identifying policies that promote the reduction of GHGs and short-lived climate pollutants; a description of other forms of hydrogen to achieve emission reductions; an analysis of curtailed electricity; an estimate of GHG and emission reductions that could be achieved through deployment of green hydrogen through a variety of scenarios; an analysis of the potential for opportunities to integrate hydrogen production and applications with drinking water supply treatment needs; policy recommendations for regulatory and permitting processes associated with transmitting and distributing hydrogen from production sites to end uses; an analysis of the life-cycle GHG emissions from various forms of hydrogen production; and an analysis of air pollution and other environmental impacts from hydrogen distribution and end uses. This bill would inform the production of hydrogen at the scale called for in the 2022 Scoping Plan.
AB 1757 (Garcia, Chapter 341, Statutes of 2022) *California Global Warming Solutions Act of 2006: Climate Goal: Natural and Working Lands*	AB 1757 requires the CNRA, in collaboration with CARB, other state agencies, and an expert advisory committee, to determine a range of targets for natural carbon sequestration, and for nature-based climate solutions, that reduce GHG emissions in 2030, 2038, and 2045 by January 1, 2024. These targets must support state goals to achieve carbon neutrality and foster climate adaptation and resilience. This bill also requires CARB to develop standard methods for state agencies to consistently track GHG emissions and reductions, carbon sequestration, and additional benefits from natural and working lands over time. These methods will account for GHG emissions reductions of CO_2, methane, and nitrous oxide related to natural and working lands and the potential impacts of climate change on the ability to reduce GHG emissions and sequester carbon from natural and working lands, where feasible. This 2022 Scoping Plan describes the next steps and implications of this legislation for the natural and working lands sector.

Table 3 (Continued)
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
SB 1206 (Skinner, Chapter 884, Statutes of 2022) *Hydrofluorocarbon gases: sale or distribution*	SB 1206 mandates a stepped sales prohibition on newly produced high-GWP HFCs to transition California's economy toward recycled and reclaimed HFCs for servicing existing HFC-based equipment. Additionally, SB 1206 also requires CARB to develop regulations to increase the adoption of very low-GWP technologies (i.e., GWP < 10 and no-GWP) in sectors that currently rely on higher-GWP HFCs.
SB 27 (Skinner, Chapter 237, Statutes of 2021) *Carbon Sequestration: State Goals: Natural and Working Lands: Registry of Projects*	SB 27 requires CNRA, in coordination with other state agencies, to establish the Natural and Working Lands Climate Smart Strategy by July 1, 2023. This bill also requires CARB to establish specified CO_2 removal targets for 2030 and beyond as part of its Scoping Plan. Under SB 27, CNRA is tasked to establish and maintain a registry to identify projects in the state that drive climate action on natural and working lands and are seeking funding. CNRA also must track carbon removal and GHG emission reduction benefits derived from projects funded through the registry. This bill is reflected directly in the 2022 Scoping Plan as CO_2 removal targets for 2030 and 2045 in support of carbon neutrality.
SB 596 (Becker, Chapter 246, Statutes of 2021) *Greenhouse Gases: Cement Sector: Net- zero Emissions Strategy*	SB 596 requires CARB, by July 1, 2023, to develop a comprehensive strategy for the state's cement sector to achieve net-zero-emissions of GHGs associated with cement used within the state as soon as possible, but no later than December 31, 2045. The bill establishes an interim target of 40 percent below the 2019 average GHG intensity of cement by December 31, 2035. Under SB 596, CARB must: • Define a metric for GHG intensity and establish a baseline from which to measure GHG intensity reductions. • Evaluate the feasibility of the 2035 interim target (40 percent reduction in GHG intensity) by July 1, 2028. • Coordinate and consult with other state agencies. • Prioritize actions that leverage state and federal incentives. • Evaluate measures to support market demand and financial incentives to encourage the production and use of cement with low GHG intensity. The 2022 Scoping Plan modeling is designed to achieve these outcomes.
Executive Order N-82-20	Governor Gavin Newsom signed Executive Order N-82-20 in October 2020 to combat the climate and biodiversity crises by setting a statewide goal to conserve at least 30 percent of California's land and coastal waters by 2030. The Executive Order also instructed the CNRA, in consultation with other state agencies, to develop a Natural and Working Lands Climate Smart Strategy that serves as a framework to advance the state's carbon neutrality goal and build climate resilience. In addition to setting a statewide conservation goal, the Executive Order directed CARB to update the target for natural and working lands in support of carbon neutrality as part of this Scoping Plan, and to take into consideration the NWL Climate Smart Strategy. Executive Order N-82-20 also calls on the CNRA, in consultation with other state agencies, to establish the California Biodiversity Collaborative (Collaborative). The Collaborative shall be made up of

Table 3 (Continued)
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
	governmental partners, California Native American tribes, experts, business and community leaders, and other stakeholders from across the state. State agencies will consult the Collaborative on efforts to: • Establish a baseline assessment of California's biodiversity that builds upon existing data and can be updated over time. • Analyze and project the impact of climate change and other stressors in California's biodiversity. • Inventory current biodiversity efforts across all sectors and highlight opportunities for additional action to preserve and enhance biodiversity. CNRA also is tasked with advancing efforts to conserve biodiversity through various actions, such as streamlining the state's process to approve and facilitate projects related to environmental restoration and land management. The California Department of Food and Agriculture (CDFA) is directed to advance efforts to conserve biodiversity through measures, such as reinvigorating populations of pollinator insects, which restore biodiversity and improve agricultural production. The Natural and Working Lands Climate Smart Strategy informs the 2022 Scoping Plan.
Executive Order N-79-20	Governor Gavin Newsom signed Executive Order N-79-20 in September 2020 to establish targets for the transportation sector to support the state in its goal to achieve carbon neutrality by 2045. The targets established in this Executive Order are: • 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. • 100 percent of medium- and heavy-duty vehicles will be zero-emission by 2045 for all operations where feasible, and by 2035 for drayage trucks. • 100 percent of off-road vehicles and equipment will be zero-emission by 2035 where feasible. The Executive Order also tasked CARB to develop and propose regulations that require increasing volumes of zero-electric passenger vehicles, medium- and hveavy-duty vehicles, drayage trucks, and off-road vehicles toward their corresponding targets of 100 percent zero-emission by 2035 or 2045, as listed above. The 2022 Scoping Plan modeling reflects these targets.
Executive Order N-19-19	Governor Gavin Newsom signed Executive Order N-19-19 in September 2019 to direct state government to redouble its efforts to reduce GHG emissions and mitigate the impacts of climate change while building a sustainable, inclusive economy. This Executive Order instructs the Department of Finance to create a Climate Investment Framework that: • Includes a proactive strategy for the state's pension funds that reflects the increased risks to the economy and physical environment due to climate change. • Provides a timeline and criteria to shift investments to companies and industry sectors with greater growth potential based on their

Table 3 (Continued)
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
	focus of reducing carbon emissions and adapting to the impacts of climate change. • Aligns with the fiduciary responsibilities of the California Public Employees' Retirement System, California State Teachers' Retirement System, and the University of California Retirement Program. Executive Order N-19-19 directs the State Transportation Agency to leverage more than $5 billion in annual state transportation spending to help reverse the trend of increased fuel consumption and reduce GHG emissions associated with the transportation sector. It also calls on the Department of General Services to leverage its management and ownership of the state's 19 million square feet in managed buildings, 51,000 vehicles, and other physical assets and goods to minimize state government's carbon footprint. Finally, it tasks CARB with accelerating progress toward California's goal of five million ZEV sales by 2030 by: • Developing new criteria for clean vehicle incentive programs to encourage manufacturers to produce clean, affordable cars. • Proposing new strategies to increase demand in the primary and secondary markets for ZEVs. • Considering strengthening existing regulations or adopting new ones to achieve the necessary GHG reductions from within the transportation sector. The 2022 Scoping Plan modeling reflects efforts to accelerate ZEV deployment.
SB 576 (Umberg, Chapter 374, Statutes of 2019) *Coastal Resources: Climate Ready Program and Coastal Climate Change Adaptation, Infrastructure and Readiness Program*	Sea level rise, combined with storm-driven waves, poses a direct risk to the state's coastal resources, including public and private real property and infrastructure. Rising marine waters threaten sensitive coastal areas, habitats, the survival of threatened and endangered species, beaches, other recreation areas, and urban waterfronts. SB 576 mandates that the Ocean Protection Council develop and implement a coastal climate adaptation, infrastructure, and readiness program to improve the climate change resiliency of California's coastal communities, infrastructure, and habitat. This bill also instructs the State Coastal Conservancy to administer the Climate Ready Program, which addresses the impacts and potential impacts of climate change on resources within the conservancy's jurisdiction.
AB 65 (Petrie- Norris, Chapter 347, Statutes of 2019) *Coastal Protection: Climate Adaption: Project Prioritization: Natural Infrastructure: Local General Plans*	This bill requires the State Coastal Conservancy, when it allocates any funding appropriated pursuant to the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018, to prioritize projects that use natural infrastructure in coastal communities to help adapt to climate change. The bill requires the conservancy to provide information to the Governor's Office of Planning and Research (OPR) on any projects funded pursuant to the above provision to be considered for inclusion into the clearinghouse for climate adaptation information. The bill authorizes the conservancy to provide technical assistance to coastal communities to better assist them with their projects that use natural infrastructure.

Table 3 (Continued)
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
Executive Order B-55-18	Governor Jerry Brown signed Executive Order B-55-18 in September 2018 to establish a statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. Policies and programs undertaken to achieve this goal shall: • Seek to improve air quality and support the health and economic resiliency of urban and rural communities, particularly low-income and disadvantaged communities. • Be implemented in a manner that supports climate adaptation and biodiversity, including protection of the state's water supply, water quality, and native plants and animals. This Executive Order also calls for CARB to: • Develop a framework for implementation and accounting that tracks progress toward this goal. • Ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The 2022 Scoping Plan is designed to achieve carbon neutrality no later than 2045 and the modeling includes technology and fuel transitions to achieve that outcome.
SB 100 (De León, Chapter 312, Statutes of 2018) *California Renewables Portfolio Standard Program: emissions of greenhouse gases*	Under SB 100, the CPUC, CEC, and CARB shall use programs under existing laws to achieve 100 percent clean electricity. The statute requires these agencies to issue a joint policy report on SB 100 every four years. The first of these reports was issued in 2021. The 2022 Scoping Plan reflects SB 100 requirements with a few minor updates.
AB 2127 (Ting, Chapter 365, Statutes of 2018) *Electric Vehicle Charging Infrastructure: Assessment*	This bill requires the CEC, working with CARB and the CPUC, to prepare and biennially update a statewide assessment of the electric vehicle charging infrastructure needed to support the levels of electric vehicle adoption required for the state to meet its goals of putting at least 5 million ZEV on California roads by 2030 and of reducing emissions of GHGs to 40 percent below 1990 levels by 2030. The bill requires the CEC to regularly seek data and input from stakeholders relating to electric vehicle charging infrastructure. This bill supports the deployment of ZEVs as modeled in the 2022 Scoping Plan.
SB 30 (Lara, Chapter 614, Statutes of 2018) *Insurance: Climate Change*	This bill requires the Insurance Commissioner to convene a working group to identify, assess, and recommend risk transfer market mechanisms that, among other things, promote investment in natural infrastructure to reduce the risks of climate change related to catastrophic events, create incentives for investment in natural infrastructure to reduce risks to communities, and provide mitigation incentives for private investment in natural lands to lessen exposure and reduce climate risks to public safety, property, utilities, and infrastructure.
AB 2061 (Frazier, Chapter 580, Statutes of 2018)	Existing state and federal laws set specified limits on the total gross weight imposed on the highway by a vehicle with any group of two or more consecutive axles. Under existing federal law, the maximum

Table 3 (Continued)
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
Near-zero-emission and Zero-emission Vehicles	gross vehicle weight of that vehicle may not exceed 82,000 pounds. AB 2061 authorizes a near-zero-emission vehicle or a zero-emission vehicle to exceed the weight limits on the power unit by up to 2,000 pounds. This bill supports the deployment of cleaner trucks as modeled in this 2022 Scoping Plan.

Source: CARB, 2022 Scoping Plan for Achieving Carbon Neutrality, Table 1-1, December 2022.

Achieving the targets described in the 2022 Scoping Plan will require continued commitment to and successful implementation of existing policies and programs, and identification of new policy tools and technical solutions to go further, faster. California's Legislature and state agencies will continue to collaborate to achieve the state's climate, clean air, equity, and broader economic and environmental protection goals. It will be necessary to maintain and strengthen this collaborative effort, and to draw upon the assistance of the federal government, regional and local governments, tribes, communities, academic institutions, and the private sector to achieve the state's near-term and longer-term emission reduction goals and a more equitable future for all Californians. The 2022 Scoping Plan acknowledges that the path forward is not dependent on one agency, one state, or even one country. However, the State can lead by engaging Californians and demonstrating how actions at the state, regional, and local levels of governments, as well as action at community and individual levels, can contribute to addressing the challenge.

Aligning local jurisdiction action with state-level priorities to tackle climate change and the outcomes called for in the 2022 Scoping Plan is identified as critical to achieving the statutory targets for 2030 and 2045. The 2022 Scoping Plan discusses the role of local governments in meeting the State's GHG reductions goals. Local governments have the primary authority to plan, zone, approve, and permit how and where land is developed to accommodate population growth, economic growth, and the changing needs of their jurisdictions. They also make critical decisions on how and when to deploy transportation infrastructure, and can choose to support transit, walking, bicycling, and neighborhoods that do not force people into cars. Local governments also have the option to adopt building ordinances that exceed statewide building code requirements, and play a critical role in facilitating the rollout of ZEV infrastructure. As a result, local government decisions play a critical role in supporting state-level measures to contain the growth of GHG emissions associated with the transportation system and the built environment—the two largest GHG emissions sectors over which local governments have authority.

(e) Cap-and-Trade Program

The Climate Change Scoping Plan identified a Cap-and-Trade Program as one of the strategies California would employ to reduce GHG emissions. CARB asserts that this program will help put California on the path to meet its goal of ultimately achieving an 80-percent reduction from 1990 levels by 2050. Under the Cap-and-Trade Program, an overall limit on GHG emissions from capped sectors was established, and facilities subject to the cap will be able to trade permits to emit GHGs.

CARB designed and adopted a California Cap-and-Trade Program[30] pursuant to its authority under AB 32. The Cap-and-Trade Program was designed to reduce GHG emissions from public and private major sources (deemed "covered entities") by setting a firm cap on Statewide GHG emissions and employing market mechanisms to achieve the State's emission-reduction mandates. The Statewide cap for GHG emissions from the capped sectors[31] (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, as GHG emission reductions are continually achieved throughout the Program's duration.

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities that emit more than 25,000 $MTCO_2e$ per year must comply with the Cap-and-Trade Program.[32] Triggering of the 25,000 $MTCO_2e$ per year "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (Mandatory Reporting Rule or MRR).[33]

Each covered entity with a compliance obligation is required to surrender "compliance instruments"[34] for each MTCO2e of GHG they emit. Covered entities are allocated free allowances in whole or part (if eligible), and can buy allowances at auction, purchase allowances from others, or purchase offset credits.

The Cap-and-Trade Program provides a firm cap, ensuring that the Statewide emission limits will not be exceeded. In sum, the Cap-and-Trade Program will achieve aggregate, rather than site-specific or project-level, GHG emissions reductions. Also, due to the regulatory framework adopted by CARB in AB 32, the reductions attributed to the Cap-

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[30] *California Code of Regulations 17, Sections 95800–96023.*

[31] *California Code of Regulations 17, Sections 95811, 95812.*

[32] *California Code of Regulations 17, Section 95812.*

[33] *California Code of Regulations 17, Sections 95100–95158.*

[34] *Compliance instruments are permits to emit, the majority of which will be "allowances," but entities also are allowed to use CARB-approved offset credits to meet up to 8 percent of their compliance obligations.*

and-Trade Program can change over time depending on the State's emissions forecasts and the effectiveness of direct regulatory measures.

The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported.[35] Accordingly, for projects that are subject to the CEQA, GHG emissions from electricity consumption are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Cap-and-Trade Program's first compliance period.[36]

The Cap-and-Trade Program applies to emissions that cover approximately 80 percent of the State's GHG emissions. Demonstrating the efficacy of AB 32 policies, California achieved its 2020 GHG reduction target four years earlier than mandated. The largest reductions were the result of increased renewable electricity in the electricity sector, which is a covered sector in the Cap-and-Trade Program.

AB 398 was enacted in 2017 to extend and clarify the role of the State's Cap-and-Trade Program through December 31, 2030. As part of AB 398, refinements were made to the Cap-and-Trade Program to establish updated protocols and allocation of proceeds to reduce GHG emissions.

(f) Energy-Related (Stationary) Sources

(i) Emission Performance Standards

SB 1368, signed on September 29, 2006, is a companion bill to AB 32, which requires the CPUC and the CEC to establish GHG emission performance standards for the generation of electricity. These standards also generally apply to power that is generated outside of California and imported into the State. SB 1368 provides a mechanism for reducing the emissions of electricity providers, thereby assisting CARB to meet its mandate under AB 32.

(ii) Renewables Portfolio Standard

SB 1078 (Chapter 516, Statutes of 2002) required retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017 as a Renewables Portfolio Standard (RPS). Subsequent amendments provided additional targets throughout the years. On October 7, 2015, SB 350 (Chapter 547, Statues of 2015), also known as the Clean Energy and Pollution Reduction Act, further increased the RPS to 50 percent by 2030. The legislation also included

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[35] *California Code of Regulations 17, Section 95811(b).*

[36] *California Code of Regulations 17, Sections 95811, 95812(d).*

interim targets of 40 percent by 2024 and 45 percent by 2027. SB 350 also requires the state to double Statewide energy efficiency savings in electricity and natural gas end uses by 2030 in comparison to 2015. The 2017 Scoping Plan incorporated the SB 350 standards and estimated the GHG reductions would account for approximately 21 percent of the Scoping Plan reductions.[37] On September 10, 2018, SB 100 provided updated RPS targets of 44 percent by 2024, 52 percent by 2027, and 60 percent by 2030, and instructed that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by 2045.[38]

(iii) Assembly Bill 1279 (The California Climate Crisis Act)

The California Legislature enacted AB 1279,[39] the California Climate Crisis Act, on September 16, 2022. AB 1279 establishes the policy of the State to achieve net zero GHG emissions, carbon neutrality,[40] as soon as possible, but no later than 2045 and achieve and maintain net negative GHG emissions thereafter. Additionally, AB 1279 ensures that by 2045 Statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. SB 1279 also requires CARB to ensure that the 2022 Scoping Plan identified and recommended measures to achieve carbon neutrality and to identify and implement policies and strategies for CO_2 removal solutions and carbon capture, utilization, and storage technologies. It also requires CARB to submit an annual report on progress in achieving the 2022 Scoping Plan's goals.

(g) Mobile Sources

(i) Pavley Standards

AB 1493 (Chapter 200, Statutes of 2002), enacted on July 22, 2002, required CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. In 2004, CARB approved the Pavley regulation to require automakers to control GHG emissions from new passenger vehicles for the 2009 through 2016 model years. Upon adoption of subsequent federal GHG standards by the USEPA that preserved the benefits of the Pavley regulations, the Pavley regulations were revised to accept compliance with the

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[37] *CARB, California's 2017 Climate Change Scoping Plan, Table 3, p. 31, November 2017. Calculated as: (108 – 53) / 260 = 21 percent.*

[38] *California Legislative Information, SB-100 California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases.*

[39] *California Legislative Information, AB 1279 The California Climate Crisis Act, 2022.*

[40] *Carbon neutrality means "net zero" emissions of GHGs. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of carbon dioxide that is stored, both in natural sinks and through mechanical sequestration. AB 1279 uses the terminology net zero and the 2022 Scoping Plan uses the terminology carbon neutrality or carbon neutral. These terms mean the same thing and are used interchangeably.*

federal standards as compliance with California's standards in the 2012 through 2016 model years. This is referred to as the "deemed to comply" option.

In January 2012, CARB approved GHG emission regulations, which require further reductions in passenger GHG emissions for 2017 and subsequent vehicle model years. As noted above, in August 2012, the USEPA and USDOT adopted GHG emission standards for model year 2017 through 2025 vehicles.[41] On November 15, 2012, CARB approved an amendment that allows manufacturers to comply with the 2017–2025 national standards to meet State law. Automobile manufacturers generally comply with these standards through a combination of improved energy efficiency in vehicle equipment (e.g., air conditioning systems) and engines, as well as sleeker aerodynamics, use of strong but lightweight materials, and lower-rolling resistance tires.[42]

In 2018, the USEPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE), which would roll back fuel economy standards and revoke California's waiver. The rule amended certain average fuel economy and GHG standards for passenger cars covering model years 2021 through 2026. On March 30, 2020, the SAFE Rule was finalized and published in the Federal Register, commencing a review period. Subsequent legal challenges from a coalition of states, including California, and private industry groups were issued. However, in December 2021, the NHTSA repealed the SAFE Vehicle Rule Part One. Although the SAFE Vehicle Rule Part One has been repealed, GHG modeling contained in regional plans, such as SCAG's 2020–2045 RTP/SCS, have not been updated to account for this repeal.

Subsequently, on March 20, 2024, USEPA announced new, more protective final standards to further reduce harmful air pollutant emissions from light-duty and medium-duty vehicles starting with model year 2027. The final rule builds upon USEPA's standards for federal GHG emissions standards for passenger cars and light trucks for model years 2023 through 2026, established in 2021. These standards will phase in over model years 2027 through 2032.

(ii) California Low Carbon Fuel Standard

Executive Order S-01-07 was enacted by Governor Arnold Schwarzenegger on January 18, 2007. The order mandates the following: (1) that a Statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 from a 2010 baseline; and (2) that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established in California. The final regulation was approved by the State's Office of Administrative Law and filed with the Secretary of State on January 12,

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[41] *USEPA, 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 2012.*

[42] *CARB, California's Advanced Clean Cars Midterm Review, pp. ES-17, C-9.*

2010; the LCFS became effective on the same day. In September 2015, CARB approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted.[43]

The development of the 2017 Scoping Plan Update identified LCFS as a regulatory measure to reduce GHG emissions to meet the 2030 emissions target. In September 2018, the standards were amended by CARB to require a 20-percent reduction in carbon intensity by 2030, aligning with California's 2030 targets set by SB 32.[44]

(iii) Advanced Clean Cars Regulations

In 2012, CARB approved the Advanced Clean Cars program, an emissions-control program for model years 2015–2025.[45] The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the ZEV regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.[46] During the March 2017 midterm review, CARB voted unanimously to continue with the vehicle GHG emission standards and the ZEV program for cars and light trucks sold in California through 2025.[47]

In addition, Governor Gavin Newsom signed an executive order (Executive Order No. N-79-20) on September 23, 2020, that would phase out sales of new gas-powered passenger cars by 2035 in California with an additional 10-year transition period for heavy vehicles. The State would not restrict used car sales or forbid residents from owning gas-powered vehicles. In accordance with the executive order, the 2020 Mobile Source Strategy, a comprehensive analysis that presents scenarios for possible strategies to reduce the carbon, toxic and unhealthy pollution from cars, trucks, equipment, and ships, was developed by CARB. The strategies will provide important information for numerous regulations and incentive programs going forward by conveying what is necessary to address the aggressive emission reduction requirements.

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[43] *CARB, Low Carbon Fuel Standard, About, ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard/about, accessed January 9, 2025.*

[44] *CARB, CARB amends Low Carbon Fuel Standard for wider impact, 2018, ww2.arb.ca.gov/index.php/news/carb-amends-low-carbon-fuel-standard-wider-impact, accessed January 9, 2025.*

[45] *CARB, Advanced Clean Cars Program, About, ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about, accessed January 9, 2025.*

[46] *CARB, Advanced Clean Cars Program, About, ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about, accessed January 9, 2025.*

[47] *CARB, News Release: CARB finds vehicle standards are achievable and cost-effective, ww2.arb.ca.gov/news/carb-finds-vehicle-standards-are-achievable-and-cost-effective, accessed January 9, 2025.*

The primary mechanism for achieving the ZEV target for passenger cars and light trucks is CARB's Advanced Clean Cars II (ACC II) Program. The ACC II regulations focus on post-2025 model year light-duty vehicles, as requirements are already in place for new vehicles through the 2025 model year. The rulemaking for ACC II regulations was adopted on November 30, 2022.

(iv) Sustainable Communities and Climate Protection Act (SB 375)

The Sustainable Communities and Climate Protection Act of 2008, or SB 375 (Chapter 728, Statutes of 2008), which was adopted by the State on September 30, 2008, establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. SB 375 finds that the "transportation sector is the single largest contributor of greenhouse gases of any sector."[48] Under SB 375, CARB is required, in consultation with the Metropolitan Planning Organizations (MPOs), to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. SCAG is the MPO in which Los Angeles County is located. CARB set targets for 2020 and 2035 for each of the 18 MPO regions in 2010 and updated them in 2018.[49] In March 2018, CARB updated the SB 375 targets for the SCAG region to require an 8-percent reduction by 2020 and a 19-percent reduction by 2035 in per capita passenger vehicle GHG emissions.[50] As discussed further below, SCAG adopted an updated Regional Transportation Plan/ Sustainable Community Strategies (2020–2045 RTP/SCS and 2024–2050 RTP/SCS) subsequent to the update of the emission targets. The 2020–2045 RTP/SCS and 2024–2050 RTP/SCS are expected to reduce per capita transportation emissions by 19 percent by 2035, which is consistent with SB 375 compliance with respect to meeting the State's GHG emission reduction goals.[51]

Under SB 375, the target must be incorporated within that region's RTP, which is used for long-term transportation planning, in an SCS. Certain transportation planning and programming activities would then need to be consistent with the SCS; however, SB 375 expressly provides that the SCS does not regulate the use of land and further provides that local land use plans and policies (e.g., general plans) are not required to be consistent with either the RTP or SCS.

(v) Senate Bill 743

Governor Jerry Brown signed SB 743 in 2013, which creates a process to change the way that transportation impacts are analyzed under CEQA. Specifically, SB 743 required

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[48] *State of California, Senate Bill No. 375, September 30, 2008.*

[49] *CARB, Sustainable Communities & Climate Protection Program, About, ww2.arb.ca.gov/our-work/programs/sustainable-communities-climate-protection-program/about, accessed December 22, 2023.*

[50] *CARB, SB 375 Regional Greenhouse Gas Emissions Reduction Targets, 2018.*

[51] *SCAG, Final 2020–2045 RTP/SCS, Chapter 0: Making Connections, 2020, p. 5.*

OPR to amend the CEQA Guidelines to provide an alternative to level of service (LOS) methodology for evaluating transportation impacts. Particularly within areas served by transit, the required alternative criteria must "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." Instead of LOS, measurements of transportation impacts may now include "vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated."

(h) Building Standards and Other Regulations

(i) California Appliance Efficiency Regulations

The Appliance Efficiency Regulations (Title 20, Sections 1601 through 1609), adopted by the CEC, include standards for new appliances (e.g., refrigerators) and lighting, if they are sold or offered for sale in California. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

(ii) Title 24—Building Standards Code

The CEC first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 is referred to as the California Green Building Standards (CALGreen) Code and was developed to help the State achieve its GHG reduction goals under HSC Division 25.5 (e.g., AB 32) by codifying standards for reducing building-related energy, water, and resource demand, which in turn reduces GHG emissions from energy, water, and resource demand. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality."[52] The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program (e.g., Leadership in Energy and Environmental Design) that is not established and adopted by the California Building Standards Commission. The CALGreen Code establishes mandatory measures for new residential and non-residential

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[52] *California Building Standards Commission, 2010 California Green Building Standards Code, 2010.*

buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality.[53]

On July 1, 2025, the CEC adopted the 2025 Title 24 Standards, which will go into into effect on January 1, 2026. The 2025 standards continue to improve upon the previous (2022) Title 24 standards for new construction of, and additions and alterations to, residential and non-residential buildings.[54] The 2025 Title 24 Standards ensure that builders use the most energy efficient and energy conserving technologies and construction practices. The 2025 Title 24 Standards encourage use of electric heat pumps, requiring newly constructed residences to be electric-ready and introduces solar and battery storage standards as an optional measure to achieve compliance and increases minimum ventilation requirements to improve air quality. Although recently adopted 2025 Title 24 Standards will go into effect on January 1, 2026, the Project will be subject to the 2022 Standards. Compliance with Title 24 is enforced through the building permit process.

(i) CEQA Guidelines

In August 2007, the California State Legislature adopted SB 97 (Chapter 185, Statutes of 2007), requiring OPR to prepare and transmit new CEQA Guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the Resources Agency by July 1, 2009. In response to SB 97, OPR adopted the new guidelines that became effective on March 18, 2010. In late 2018, OPR finalized amendments to the CEQA Guidelines, including changes to CEQA Guidelines Section 15064.4, which addresses the analysis of GHG emissions. The amendments became effective on December 28, 2018.

However, neither a threshold of significance nor any specific mitigation measures are included or provided in the CEQA Guidelines.[55] The CEQA Guidelines require a lead agency to make a good-faith effort, to the extent possible based on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. Discretion is given to the lead agency whether to: (1) use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; or (2) rely on a qualitative analysis or performance-based standards. Furthermore, three factors are identified that should be considered in the evaluation of the significance of GHG emissions:

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[53] *California Building Standards Commission, 2010 California Green Building Standards Code, 2010.*

[54] *California Energy Commission (CEC), Building Energy Efficiency Standards, 2025, https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2025-building-energy-efficiency, accessed October 8, 2025.*

[55] *See 14 Cal. CCR Section 15064.7 (generally giving discretion to lead agencies to develop and publish thresholds of significance for use in the determination of the significance of environmental effects), 15064.4 (giving discretion to lead agencies to determine the significance of impacts from GHGs).*

1. The extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting;

2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.[56]

The administrative record for the amendments to the CEQA Guidelines clarifies "that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of California Environmental Quality Act's requirements for cumulative impact analysis."[57]

(3) Regional

(a) South Coast Air Quality Management District CEQA Guidance

The County is located in the South Coast Air Basin (Air Basin), which consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside Counties, in addition to the San Gorgonio Pass area in Riverside County. The South Coast Air Quality Management District (SCAQMD) is responsible for air quality planning in the Air Basin and developing rules and regulations to bring the area into attainment of the ambient air quality standards. This is accomplished through air quality monitoring, evaluation, education, implementation of control measures to reduce emissions from stationary sources, permitting and inspection of pollution sources, enforcement of air quality regulations, and by supporting and implementing measures to reduce emissions from motor vehicles.

In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds.[58] A GHG Significance Threshold Working Group was formed to further evaluate potential GHG significance thresholds.[59] SCAQMD proposed the use of a percent emission reduction target to determine significance for commercial/residential projects that emit greater than 3,000 $MTCO_2e$ per year. Under this proposal, commercial/residential projects that emit fewer than 3,000 $MTCO_2e$ per year would be assumed to have a less-than-

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[56] *14 CCR Section 15064.4(b).*

[57] *Letter from Cynthia Bryant, Director of the Governor's Office of Planning and Research to Mike Chrisman, California Secretary for Natural Resources, dated April 13, 2009.*

[58] *SCAQMD, Board Meeting, December 5, 2008, Agenda No. 31, www3.aqmd.gov/hb/2008/December/081231a.htm, accessed January 9, 2025.*

[59] *SCAQMD, Greenhouse Gases CEQA Significance Thresholds, www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds, accessed January 9, 2025.*

significant impact on climate change. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold of 10,000 $MTCO_2e$ per year for stationary source/industrial projects where the SCAQMD is the lead agency. However, SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects). The Working Group has been inactive since 2011, and SCAQMD has not formally adopted any GHG significance threshold for other jurisdictions.

(b) SCAG Regional Transportation Plan/Sustainable Communities Strategy

To implement SB 375 and reduce GHG emissions by correlating land use and transportation planning, SCAG adopted the 2020–2045 RTP/SCS in September 2020. The vision for the region incorporates a range of best practices for increasing transportation choices, reducing dependence on personal automobiles, further improving air quality, and encouraging growth in walkable, mixed-use communities with ready access to transit infrastructure and employment. More and varied housing types and employment opportunities would be located in and near job centers, transit stations and walkable neighborhoods where goods and services are easily accessible via shorter trips. To support shorter trips, people would have the choice of using neighborhood bike networks, car share or micro-mobility services, such as shared bicycles or scooters. For longer commutes, people would have expanded regional transit services and more employer incentives to carpool or vanpool. Other longer trips would be supported by on-demand services, such as microtransit, carshare, and citywide partnerships with ride hailing services. For those that choose to drive, hotspots of congestion would be less difficult to navigate due to cordon pricing and using an electric vehicle will be easier due to an expanded regional charging network.

The 2020–2045 RTP/SCS states that the SCAG region was home to about 18.8 million people in 2016 and currently includes approximately 6.0 million homes and 8.4 million jobs.[60] By 2045, the integrated growth forecast estimates that these figures will increase by 3.7 million people, with nearly 1.6 million more homes and 1.6 million more jobs. Transit Priority Areas[61] (TPAs) will account for less than 1 percent of regional total land but are projected to accommodate 30 percent of future household growth between 2016 and 2045. The 2020–2045 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in the region's TPAs. TPAs are a cornerstone of land use planning best practice in the SCAG region because they concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life cycle

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[60] *2020–2045 RTP/SCS population growth forecast methodology includes data for years 2000, 2010, 2016, and 2045.*

[61] *Defined by the 2020–2045 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a major transit stop (rail or bus rapid transit station) with 15-minute or less service frequency during peak commute hours.*

infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability.

The 2020–2045 RTP/SCS is expected to reduce per capita transportation emissions by 19 percent by 2035, which is consistent with SB 375 compliance with respect to meeting the State's GHG emission reduction goals.[62] Due to fuel economy and efficiency improvements, GHG emission rates of model year 2017 vehicles have decreased by 15 to 20 percent when compared to model year 2008 and earlier vehicles. However, for purposes of SB 375 emissions reduction targets, the fuel economy improvements have been largely excluded from the reduction calculation. The SB 375 target focuses on the amount of vehicle travel per capita. As discussed above, OPR recommended that achieving 15 percent lower per capita (residential) or per employee (office) VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the State's emissions goals (i.e., SB 375 goal). The reductions generated by fuel economy improvements are already included as part of the State's GHG emissions reduction program and are not double-counted in the SB 375 target calculation.

On April 4, 2024, SCAG adopted the 2024–2050 RTP/SCS. Similar to the 2020–2045 RTP/SCS, the 2024–2050 RTP/SCS is a long-term plan for the Southern California region that details investment in the transportation system and development in communities to meet the existing and future needs of the region through projects, investments, policies and strategies. While the 2024–2050 RTP/SCS remains focused on its core responsibilities and on the requirements of comprehensive regional transportation planning integrated with the development of a sustainable communities strategy, it also encompasses a holistic approach to programs and strategies that support success of the RTP/SCS, such as workforce development, broadband and mobility hubs.

(c) University of California Policy on Sustainable Practices

In June 2004, the University of California (UC) developed detailed guidelines for the Policy on Green Building Design and Clean Energy Standards. This comprehensive policy established the University as a leader in promoting environmental stewardship among institutions of higher education. Subsequently renamed the Policy on Sustainable Practices, it has been revised several times (with the most recent version becoming effective in April 2024). This policy document applies to all 10 UC campuses, five academic health centers, UC Agriculture and Natural Resources locations, Lawrence Berkeley National Laboratory, and the UC Office of the President. The UC Policy on Sustainable Practices calls for collective action to address the climate crisis by establishing goals in 13 areas of sustainable practices, including green building design, clean energy, and sustainable transportation. It also describes UC's commitments to reduce operational GHG emissions to support the State's climate goals while minimizing impacts to vulnerable populations. All UC locations

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[62] *SCAG, Final 2020–2045 RTP/SCS, Chapter 0: Making Connections, 2020, p. 5.*

are tasked with achieving at least a 90% reduction in total emissions (Scopes 1, 2, and 3) relative to a 2019 baseline by no later than 2045. Particularly relevant to the proposed Project, the UC Policy on Sustainable Practices, under the category of Green Building Design, requires that minor renovation projects meet a minimum rating of LEED Certified.[63]

[63] *University of California – Policy on Sustainable Practices. April 2024*

UCLA Health Sports Medicine Institute Project (5210 Pacific Concourse Tenant Improvements)

Appendix AQ-2: Air Quality and Greenhouse Gas Methodology

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AIR QUALITY AND GREENHOUSE GAS EMISSIONS METHODLOGY

UCLA Health Sports Medicine Institute Project
(5210 Pacific Concourse Tenant Improvements)

Prepared by:

Eyestone Environmental, LLC

November 2025

UCLA Health Sports Medicine Institute Project (5210 Pacific Concourse Tenant Improvements)

Air Quality and Greenhouse Gas Emissions Methodology

1. Introduction

Eyestone Environmental has been retained to conduct a comprehensive criteria air pollutant emissions assessment for the UCLA Health Sports Medicine Institute Project (the "Project"). Emissions during both construction and operation of the Project were quantified. This assessment describes the methodology used to estimate air pollutant emissions from existing and Project conditions and describes the methodology used to quantify air pollutant emission reductions from project design features and mitigation measures.

2. Air Pollutant and Greenhouse Gas Emissions Methodology

The Project would result in direct emissions of criteria pollutants generated by different types of emissions sources, including:[1]

- Direct Emissions:
  - Construction: emissions associated with demolition of existing uses, shoring, excavation, grading, and construction-related equipment and vehicular activity;
  - Area source: emissions associated with consumer products, architectural coatings, and landscape equipment;
  - Energy source (building operations): emissions associated with space heating and cooling, and water heating;

[1] *Direct sources of emissions include Project-related vehicular trips and onsite combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).*

- Mobile source: emissions associated with vehicles accessing the project site; and
- Stationary source: emissions associated with stationary equipment (e.g., emergency generators).

a. Emission Inventories

Project-related construction and operation emissions were calculated using SCAQMD's recommended California Emissions Estimator Model (CalEEMod). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered by the SCAQMD to be an accurate and comprehensive tool for quantifying criteria pollutant impacts from land use projects throughout California.[2]

CalEEMod utilizes widely accepted models for emission estimates combined with appropriate default data that can be used if site-specific information is not available. These models and default estimates use sources such as the USEPA AP-42 emission factors, CARB's on-road emission model (EMission FACtor model (EMFAC)) and off-road equipment emission model (Off-road Emissions Inventory Program model (OFFROAD)).

(1) Construction

Construction activities would generate emissions from off-road equipment usage, on-road vehicle travel (truck hauling, vendor deliveries, and workers commuting), architectural coating, and paving. Each of these source types is discussed in more detail below. The Project's construction emissions were calculated using the SCAQMD recommended CalEEMod (Version 2022.1). Please refer to CalEEMod construction output files for a complete listing of construction details modeled. CalEEMod default values were used for equipment and vehicle emission factors, equipment load factors and vehicle trip lengths. It should be noted that the maximum daily emissions were predicted values for the worst-case day and do not represent the emissions that would occur for every day of Project construction. The maximum daily emissions were compared to the SCAQMD daily regional numeric indicators.

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[2] *See www.caleemod.com.*

(a) Emissions from Construction Equipment

The emission calculations associated with construction equipment are from off-road equipment engine use based on the equipment list and phase length. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel. Construction equipment emissions vary with engine model years in which newer equipment will emit fewer pollutants. As a conservative assumption, the CalEEMod model uses an emission rate for equipment which represents an average model year for available equipment within the Air Basin. CalEEMod calculates the exhaust emissions based on CARB OFFROAD methodology using the equation presented below.

Construction Off-Road Equipment:

$$\text{Emissions Diesel [lbs]} = \left(\sum_i (EF_i \times Pop_i \times AvgHP_i \times Load_i \times Activity_i \right.$$

Where:
- EF_i = Emission factor from OFFROAD (lbs/hr)
- Pop_i = Population (quantity of same equipment)
- $AvgHP_i$ = Maximum rated average horsepower (hp)
- $Load_i$ = Load Factor (dimensionless)
- $Activity_i$ = Hours of operation (hours)
- i = Summation index

Fugitive dust emissions from use of off-road equipment were also calculated using CalEEMod based on the types of equipment used during grading activities and based on the amount of import/export from loading or unloading dirt into haul trucks. These methods have been adapted from USEPA's AP-42 method for Western Coal Mining. As recommended by SCAQMD, the fugitive dust emissions from the grading phase are calculated using the methodology described in USEPA AP-42. PM_{10} and $PM_{2.5}$ emissions from fugitive dust will be controlled by watering the construction site three times a day consistent with SCAQMD Rule 403 and were estimated to be reduced by 74 percent.

(b) Emissions from On-Road Trips

Construction generates on-road vehicle exhaust, evaporative, and dust emissions from personal vehicles for worker commuting, vendor deliveries, and trucks for soil and material hauling. These emissions are based on the number of trips and VMT along with emission factors from EMFAC. The emissions from mobile sources were calculated with the trip rates, trip lengths and emission factors for running from EMFAC as follows:

Construction On-Road Equipment:

Emissions pollutant (lbs) = VMT * EF running, pollutant

Where: VMT = vehicle miles traveled (miles)

EF running,pollutant = emission factor for running emissions (lbs/VMT)

Evaporative emissions, starting and idling emissions in CalEEMod were calculated by multiplying the number of trips times the respective emission factor for each pollutant.

(c) Emissions from Architectural Coating

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings. CalEEMod calculates the VOC evaporative emissions from application of residential and non-residential surface coatings using the following equation:

Construction Architectural Coating Emissions:

Emissions Architectural Coatings (lbs) $=EF_{AC}$ x F $*A_{paint}$

Where: EF_{AC} = Emission Factor (lb/sf)

A_{paint} = Building Surface Area (sf)

The CalEEMod tool assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage. All of the land use information provided by a metric other than square footage erewill be converted to square footage using the default conversions or user defined equivalence.

F = fraction of surface area [%].

The default values based on SCAQMD methods used in their coating rules are 75 percent for the interior surfaces and 25 percent for the exterior shell. Parking areas are based on 6-percent coverage.

The emission factor (EF) is based on the VOC content of the surface coatings and is calculated estimated using the equation below:

$EF_{AC} = C_{VOC}$/454(g/lb) x 3.785(L/gal)/180*sf)

Where: EF = emission factor (lb/sf)

C = VOC content (g/L or gram per liter)

The emission factors for coating categories were calculated using the equation above based on default VOC content from provided by the air districts or CARB's statewide limits in CalEEMod. Architectural coating VOC emission factors are also consistent with SCAQMD Rule 1113 as discussed above.

(d) Emissions from Paving

CalEEMod estimates VOC off-gassing emissions associated with asphalt paving of parking lots using the following equation:

$Emissions_{AP}$ (lbs) = EF_{AP} x $A_{parking}$

Where: EF = emission factor (lb/acre)

A = area of the parking lot (acre)

Note: The Sacramento Metropolitan Air Quality Management District (SMAQMD) default emission factor is 2.62 lb/acre. This value is used as the default emission factor within CalEEMod

(2) Operation

Similar to construction, the SCAQMD-recommended CalEEMod was used to calculate potential emissions generated by the Project, including area source, energy sources (electricity and natural gas), mobile source, stationary sources (emergency generator), solid waste generation and disposal, water usage/wastewater generation, and refrigeration.

(3) Area Source Emissions

Area source emissions were calculated using the CalEEMod emissions inventory model, which includes consumer products, architectural coatings, and landscape maintenance equipment. Pollutant emissions generated by the Project were calculated using CalEEMod defaults, based upon the land uses that will be included in each project.

Consumer products are chemically formulated products used by household and institutional consumers, including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products; but

does not include other paint products, furniture coatings, or architectural coatings. SCAQMD did an evaluation of consumer product use compared to the total square footage of buildings using data from CARB consumer product Emission Inventory. To calculate the VOC emissions from consumer product use, the following equation was used in CalEEMod:

Emissions Consumer Products (lbs) = EF_{CP} x Building Area

Where:

EF_{CP} = pounds of VOC per building square foot

The factor is 1.98 x 10^{-5} lbs/sf for SCAQMD areas.

Building Area = the total square footage of all buildings including residential square footage

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers. The operational emission methodology from architecture coating is the same as the construction methodology discussed above. All land use buildings are assumed to be repainted at a rate of 10 percent of area per year. This is based on the assumptions used by SCAQMD.

The combustion of fossil fuels to operate landscape equipment such as lawnmowers and trimmers, results in pollutant emissions. The emissions occur on-site and are considered a direct source of pollutant emissions. The emissions for landscaping equipment are based on the size of the land uses, the pollutant emission factors for fuel combustion. Pollutant emissions from landscaping equipment are generally calculated in CalEEMod as follows:

Landscaping Equipment:

Landscaping Equipment Emissions [lbs] = (Σ_i (Units × EF_{LE} × A_{LE})$_i$)

Where: Units = Number of land use units (same land use type) [1,000 sf]

EF_{LE} = Emission factor [grams (g)/1,000 sfday]

i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

(4) Energy Emissions (Natural Gas)

Pollutant emissions are emitted as a result of activities in buildings when electricity and natural gas are used as energy sources. Combustion of any type of fuel emits pollutant emissions directly into the atmosphere; when this occurs in a building, it is a direct emission source associated with that building. Pollutant emissions are also emitted during the generation of electricity from fossil fuels. When electricity is used in a building, the electricity generation typically takes place off-site at the power plant; electricity use in a building generally causes emissions in an indirect manner.

Energy demand emissions were calculated using the CalEEMod emissions inventory model. Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. CalEEMod calculates energy use from systems covered by Title 24 Building Energy Efficiency Standards (e.g., heating, ventilation, and air conditioning [HVAC] system, water heating system, and lighting system); energy use from lighting; and energy use from office equipment, appliances, plug-ins, and other sources not covered by Title 24 or lighting.

CalEEMod energy demand is based on the California Energy Commission (CEC) sponsored California Commercial End Use Survey (CEUS) study.[3] The data is specific for Electricity Demand Forecast Zones (EDFZ) and, therefore, EDFZ 16 was selected for the Project Site based on the Project's address. CalEEMod includes 2019 Title 24 Energy Efficiency Standards when calculating project energy usage.

(a) Natural Gas

The direct source emissions associated with natural gas combustion are based on the size of the land uses and the natural gas combustion factors for the land uses in units of million British thermal units (MMBtu). Natural gas emissions are calculated in CalEEMod as follows:

[3] *2019 consumption estimates from the CEC's (2020, 2021) 2018–2030 Uncalibrated Commercial Sector Forecast (Commercial Forecast) and the RASS (refer to Table G-28) of Appendix G in CalEEMod User's Guide, 2022.*

Natural Gas:

Natural Gas Emissions (lbs) = (Σ_i (Units × D_{NG} × EF_{NG})$_I$)

Where: Units = Number of land use units (same land use type) [1,000 sf]

D_{NG} = Natural Gas combustion factor [MMBtu/1,000 sf]

EF_{NG} = Natural Gas combustion factor [pounds/MMBtu]

I = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

(5) Mobile Source Emissions

Mobile-source emissions were calculated using the CalEEMod emissions inventory model. CalEEMod calculates the emissions associated with on-road mobile sources associated with residents, employees, visitors, and delivery vehicles visiting the Project Site based on the number of daily trips generated and vehicle miles traveled (VMT). The Traffic Study prepared for the Project calculated Project trips which was entered into CalEEMod in calculating Project mobile source emissions.

Modeling was also conducted using the Los Angeles County vehicle fleet mix for all vehicle types as provided in EMFAC2021.

Mobile source emissions were generally calculated in CalEEMod as follows:

Mobile:

Mobile Emissions [lbs] = (Σ_i (Units × ADT x D_{TRIP} × EF_i)

Where: Units = Number of vehicles (same vehicle model year and class)

ADT = Average daily trip rate [trips/day]

D_{TRIP} = Trip distance [miles/trip]

EF = Pollutant emission factor [pounds per mile]

i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

The Project design includes characteristics that would reduce trips and VMT as compared to a standard project within the air basin as measured by the air quality model (CalEEMod). While these Project characteristics primarily reduce greenhouse gas emissions, they would also reduce criteria air pollutants discussed herein. These relative reductions in vehicle trips and VMT from a standard project within the air basin help quantify the criteria air pollutant emissions reductions achieved by locating the Project in any infill, HQTA area that promotes alternative modes of transportation.

(6) Stationary Source (Emergency Generator Emissions)

Emissions of GHGs associated with use of emergency generators were calculated using CalEEMod, in which emission factors are based on Table 3.4-1 (Gaseous Emission Factors for Large Stationary Diesel Engines) from EPA's AP-42: Compilation of Air Pollutant Emission Factors. The emissions are based on the horsepower rating of the diesel generator and the number of hours operated per year for testing purposes. Annual emergency generator GHG emissions in units of $MTCO_2e$ were calculated as follows:

Emergency Generator:

Emissions [lbs] = (Total HP x LF x HR × EF)

Where: Total HP = Total horsepower of emergency generators (Hp)
LF = Load Factor (CalEEMod default of 0.73)
HR = Hours Operated per Year
EF = AP-42 Emission Factor of 1.16 lb/hp-hr)

(7) Solid Waste Emissions

The generation of municipal solid waste (MSW) from day-to-day operational activities generally consists of product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, plastic, and other items routinely disposed of in trash bins. A portion of the MSW is diverted to waste recycling and reclamation facilities. Waste that is not diverted is usually sent to local landfills for disposal. MSW that is disposed in landfills results in GHG emissions of CO_2 and CH_4 from the decomposition of the waste that occurs over the span of many years.

Emissions of GHGs associated with solid waste disposal were calculated using the CalEEMod emissions inventory model. The emissions are based on the size of the retail and restaurant land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the

GHGs emitted. Annual waste disposal GHG emissions in units of $MTCO_2e$ were calculated in CalEEMod as follows:

Solid Waste:

$$\text{Annual Emissions } [MTCO_2e] = \left(\Sigma_i \left(\text{Units} \times D_{MSW} \times EF_{MSW} \times GWP \right)_i \right) \div 1.1023$$

Where: Units = Number of land use units (same land use type) [1,000 sf]

D_{MSW} = Waste disposal rate [tons/1,000 sf/yr]

EF_{MSW} = GHG emission factor [tons/ton waste]

GWP = Global warming potential [CO_2 = 1, CH_4 = 21, N_2O = 310]

1.1023 = Conversion factor [tons/MT]

i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

CalEEMod allows the input of several variables to quantify solid waste emissions. The model requires the amount of waste disposed, which is the product of the waste disposal rate times the land use units. CalEEMod default annaual solid waste disposal rates used. The GHG emission factors, particularly for CH_4, depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery), which are statewide averages, were used in this assessment. The Project includes a 65-percent recycling/diversion rate currently achieved within the County.[4]

(8) Water Usage and Wastewater Generation Emissions

GHG emissions are related to the energy used to convey, treat, and distribute water and wastewater. Thus, these emissions are generally indirect emissions from the production of electricity to power these systems. Three processes are necessary to supply potable water and include: (1) supply and conveyance of the water from the source; (2) treatment of the water to potable standards; and (3) distribution of the water to individual users. After use, energy is used as the wastewater is treated and reused as reclaimed water.

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[4] *Los Angeles Countywide Disposal Rate and Assessment of Disposal Capacity, 2023 Report.*

Emissions related to water usage and wastewater generation were calculated using the CalEEMod emissions inventory model. The emissions are based on the size of the land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. CalEEMod default annual water demand and wastewater rates were used. GHG emissions due to electricity are calculated in CalEEMod as follows for indoor and outdoor water demand:

Water Supply, Treatment, and Distribution; Wastewater Treatment (electricity):

$$\text{Annual Emissions } [MTCO_2e] = (\Sigma_i \ (\text{Units} \times D_W \times (EI_W \div 1{,}000) \times EF_W \times GWP)_i \ ) \div 2{,}204.62$$

Where: Units = Number of land use units (same land use type) [1,000 sf]

D_W = Water demand factor [million gallons (Mgal)/1,000 sf/yr]

EI_W = Electricity intensity factor [kilowatt-hours (kWh)/Mgal]

1,000 = Conversion factor [kWh/MWh]

EF_W = GHG emission factor [pounds/MWh]

GWP = Global warming potential [CO_2 = 1, CH_4 = 21, N_2O = 310]

2,205 = Conversion factor [pounds/MT]

i = Summation index

Note: For residential land uses, emission factors are specified in units of dwelling units (DU) instead of 1,000 sf.

CalEEMod provides options to account for the use of water saving features such as the use of low-flow water fixtures (e.g., low-flow faucets, low-flow toilets). The same electricity GHG emissions factors discussed above were used for water and wastewater energy usage. In addition, the calculation of Project GHG emissions from water/wastewater usage accounts for a 20 percent reduction in water/wastewater emissions with implementation of CalGreen requirements.

(9) Refrigerant Emissions

The estimate the fugitive GHG emissions associated with building air conditioning (A/C) and refrigeration equipment is based on the different types of refrigeration equipment used by different types of land uses. For example, an office may use various types of A/C equipment, while a supermarket may use both A/C equipment and refrigeration equipment. All equipment that uses refrigerants has a charge size (i.e., quantity of refrigerant the

equipment contains), operational and service refrigerant leak rates (from regular operation and routine servicing), and number of times serviced per lifetime. Each refrigerant has a GWP that is specific to that refrigerant. CalEEMod automatically generates a default A/C and refrigeration equipment inventory for each project land use subtype. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime and then derives average annual emissions from the lifetime estimate. Note that CalEEMod does not quantify emissions from the disposal of refrigeration and A/C equipment at the end of its lifetime.

UCLA Health Sports Medicine Institute Project (5210 Pacific Concourse Tenant Improvements)

Appendix AQ-3: Air Quality and Greenhouse Gas Worksheets

- Appendix AQ-3: Air Quality and Greenhouse Gas Worksheets
  - Summary of Criteria Air Pollutant Emissions
  - Localized Significance Threshold (LST) Calculation Worksheets
  - Summary of Construction Assumptions
  - Trip Generation Summary
  - GHG Emissions Summary
  - Electric Vehicle Charging Calculations
  - SB 100
  - Natural Gas Boiler Calculations
- CalEEMod Outputs
  - Existing Operations at Buildout Year
  - Project Construction and Operations
  - Project Construction Onsite

5210 Pacific Concourse

Emissions Summary - Summer

Construction Emissions (Unmitigated)

Regional (Daily) Unmitigated	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Year 2026	1	12	18	<1	3	1
Year 2027	13	8	14	<1	1	1
MAX	13	12	18	<1	3	<1
Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Difference	**(62)**	**(88)**	**(532)**	**(150)**	**(147)**	**(54)**
Impact	**No**	**No**	**No**	**No**	**No**	**No**

Localized (Daily) Unmitigated	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Year 2026	1	11	13	<1	2	<1
Year 2027	13	7	9	<1	<1	<1
MAX		11	13		2	<1
Threshold		110	967		8	5
Difference		**(99)**	**(954)**		**(6)**	**(5)**
Impact		**No**	**No**		**No**	**No**

Operation Emissions

Existing Regional Emissions (Existing Year)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	5	4	46	<1	11	3
Area	5	<1	7	<1	<1	<1
Energy	<1	2	1	<1	<1	<1
Emergency Generator	<1	2	2	< 0.005	<1	<1
Total	11	8	57	<1	12	3
Existing Regional Emissions (Buidout Year)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	5	4	46	<1	11	3
Area	5	<1	7	<1	<1	<1
Energy	<1	2	1	<1	<1	<1
Emergency Generator	<1	2	2	< 0.005	<1	<1
Total	11	8	57	<1	12	3

Project Regional Emissions (Buildout Year)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	11	9	106	<1	26	7
Area	5	<1	7	<1	<1	<1
Energy	<1	3	2	<1	<1	<1
Emergency Generator	1	6	3	<1	<1	<1
Total	18	17	119	<1	27	7

Incremental Regional Emissions (Project Less Existing)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	6	5	60	<1	15	4
Area	<1	<1	<1	<1	<1	<1
Energy	0	1	1	0	0	0
Emergency Generator	<1	3	1	<1	-<1	-<1
Total	7	9	62	0	15	4
Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Difference	**(48)**	**(46)**	**(488)**	**(150)**	**(135)**	**(51)**
Impact	No	No	No	No	No	No

Project Localized (Buildout Year)						
Area	0.0	0.0	0.0	0.0	0.0	0.0
Energy	0.1	1.1	0.9	0.0	0.1	0.1
Emergency Generator	0.4	3.3	1.1	<1	(0.1)	(0.1)
Onsite Total	0.5	4.4	2.0	0.0	(0.0)	(0.0)
Threshold		**110**	**967**		**2**	**1**
Difference		**(105)**	**(965)**		**(2)**	**(1)**
Impact		**No**	**No**		**No**	**No**

5210 Pacific Concourse

Emissions Summary - Winter

Construction Emissions (Unmitigated)

Regional (Daily) Unmitigated	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Year 2026	1	10	12	<1	3	1
Year 2027	14	13	19	<1	2	1
Year 2028	13	8	13	<1	1	0
MAX	14	13	19	<1	3	<1
Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Difference	**(62)**	**(87)**	**(531)**	**(150)**	**(147)**	**(54)**
Impact	**No**	**No**	**No**	**No**	**No**	**No**

Localized (Daily) Unmitigated	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Year 2026	<1	7	10	<1	2	<1
Year 2027	13	11	15	<1	<1	<1
Year 2028	13	7	9	<1	<1	<1
MAX		11	15		2	<1
Threshold		110	967		8	5
Difference		**(98)**	**(952)**		**(6)**	**(5)**
Impact		**No**	**No**		**No**	**No**

Operation Emissions

Existing Regional Emissions (Existing Year)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	5	4	42	<1	11	3
Area	4	<1	<1	<1	<1	<1
Energy	<1	2	1	<1	<1	<1
Emergency Generator	<1	2	2	< 0.005	<1	<1
Total	10	8	45	<1	12	3

Existing Regional Emissions (Buidout Year)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	5	4	42	<1	11	3
Area	4	<1	<1	<1	<1	<1
Energy	<1	2	1	<1	<1	<1
Emergency Generator	<1	2	2	< 0.005	<1	<1
Total	10	8	45	<1	12	3

Project Regional Emissions (Buildout Year)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	11	10	97	<1	26	7
Area	4	<1	<1	<1	<1	<1
Energy	<1	3	2	<1	<1	<1
Emergency Generator	1	6	3	<1	<1	<1
Total	17	18	103	<1	27	7

Incremental Regional Emissions (Project Less Existing)	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$
Mobile	6	5	56	<1	15	4
Area	<1	<1	<1	<1	<1	<1
Energy	0	1	1	0	0	0
Emergency Generator	<1	3	1	<1	-<1	-<1
Total	7	10	58	0	15	4
Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Difference	**(48)**	**(45)**	**(493)**	**(150)**	**(135)**	**(51)**
Impact	No	No	No	No	No	No

Project Localized (Buildout Year)						
Area	0.0	0.0	0.0	0.0	0.0	0.0
Energy	0.1	1.1	0.9	0.0	0.1	0.1
Emergency Generator	0.4	3.3	1.1	0.0	(0.1)	(0.1)
Onsite Total	0.5	4.4	2.0	0.0	(0.0)	(0.0)
Threshold		**110**	**967**		**2**	**1**
Difference		**(105)**	**(965)**		**(2)**	**(1)**
Impact		**No**	**No**		**No**	**No**

Step 1. Determine Allowable Increase using 98th percentile NO2 and Max NO2 data

NO2 Monitoring Data

SRA	City	Design Value 2021-2023	98th percentile, ppb 2021	2022	2023	Threshold (ppb)	Allowable Increase (ppb)
3	Southwest Coastal LA County	50	55	48	47	100	50

SRA	City	Design Value 2006-2008	Max Hourly, ppb 2021	2022	2023	Threshold (ppb)	Allowable Increase (ppb)
3	Southwest Coastal LA County	120	59	58	56	180	60

Max Hourly vs. 98th Percentile Ratio (Allowable Increase)	84%

Step 2. Use ratio in Step 1 to determine LST lookup value. Extrapolate/Interpolate LST look-up value for project area

LST Threshold (SRA 2, 25 meter receptor)

Project Size (acres)	NO2 (lbs/day)	98th Percentile NO2 (lbs/day)	CO (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	PM10 Ops (lbs/day)	PM2.5 Ops (lbs/day)
2	131	110	967	8	5	2	1

5210 Pacific Concourse

Air Quality Analysis Assumptions

Construction Details	Start Date	End Date	Duration (Months)	Work Days	Max Daily Employee Trips	Max Daily Hauls	Total Hauls	Max Daily Deliveries	Construction (Sq Ft) Residential	Non-Residential	Parking (Spaces)
Overall Duration	**3/9/2026**	**1/7/2028**	**22**	574							
Demolition	3/9/2026	6/19/2026	3	75	25	8	600	-----			
Grading/Excavation	6/22/2026	7/17/2026	1	20	75	3	6				
Trenching	7/20/2026	9/25/2026	2	50	75	2	100				
Building Construction	6/22/2026	1/7/2028	19	405	100		-----	12		170,000	0
Paving/Landscape	12/1/2027	12/30/2027	1	22	20	-----	-----	8			
Architectural Coatings	7/1/2027	1/7/2028	6	137	20	-----	-----				

Site Acreage	
	1.0
Demolition Quantities	
Building Square Footage (SF)	170,000
Parking (SF)	
Parking (spaces)	
Import/Export Quantities during Grading	**(CY)**
Import	-
Export	95

Landfill Location	Distance (miles)
Vulcan Irwindale	42
Onsite Travel	0.15

Equipment	Worst-Case Day					
	Demo	Grading/ Excavation	Trenching	Building Construction	Paving/ Landscape	Arch Coating
Air Compressor	4					1
Aerial Lift				1		
Bore/Drill Rig						
Cement and Mortar Mixers					1	
Concrete/Industrial Saws	1		1			
Cranes (Tower)						
Cranes (Mobile)				1		
Crawler Tractors						
Crushing/Proc. Equipment						
Excavators						
Forklifts				2		
Generator Sets						
Graders						
Off-Highway Tractors						
Water Truck						
Pavers					1	
Paving Equipment						
Pumps						
Plate Compactors						
Rollers					1	
Rough Terrain Forklifts						
Rubber Tired Dozers						
Rubber Tired Loaders						
Scrapers						
Signal Boards						
Skid Steer Loaders						
Surfacing Equipment						
Tractors/Loaders/Backhoes	1		1	1	1	
Trenchers			1			
Welders						
Other ( )						
Total Pieces	6	0	3	5	4	1

Notes: Grading/Excavation equipment contained in Building Construction phase

5210 Pacific Concourse

Trip Generation

Project

Land Use	Amount (KSF)	Daily Trips	Walk/Bike/ Transit Credit	Total	Trip Rate
Medical Office Building	71.3	2,820	127	2,693	37.770
Research and Development	98.7	935	42	893	9.048
Total				**3,586**	

Existing

Land Use	Amount	Daily Trips	Walk/Bike/ Transit Credit	Total	Trip Rate
Research and Development	170	1,610	72	1,538	9.047
Total				**1,538**	

Fehr and Peers, May 28, 2025

5210 Pacific Concourse

Construction Emissions Summary (GHG)

CalEEMod Output Summary	
Year	**CO2e**
2026	376
2027	419
2028	8
Total	803
30-year Amortized	27

Operational Emissions Summary (GHG)

CalEEMod Output Summary	Project
Baseline (Buildout Year)[a]	**CO_2e**
Mobile	1,945
Area	3
Energy	765
Water	165
Waste	1
Refrig.	1
Stationary	38
Total	2,919
Buildout (Buildout Year)[b]	
Mobile	4,534
Area	3
Energy	537
Water	63
Waste	85
Refrig.	1
Stationary	233
EV Charging Credit	(207)
Construction	27
Total	**5,276**
Project (Buildout less Baseline)	
Mobile	2,589
Area	0
Energy	(228)
Water	(102)
Waste	84
Refrig.	0
Stationary	195
EV Charging Credit	(207)
Construction	27
Total	**2,357**

[a] Existing Uses

[b] Please refer to CalEEMod outputs for Future uses

9000 Airport
Electric Vehicle (EV) Modeling Parameters

GHG Emissions Reductions for Passenger Vehicle Uses Associated with City Codes (Electric Vehicle Charging Stations/Plugins)

Step 1: Estimating GHG Emisisons Reduction to Replace Gasoline/Diesel Vehicle with Electric Vehicle

	Project	
SCE Electricity Emission Factor[1]	0.00	MTCO2E/MWh
Total Passenger Vehicle VMT per Year[2]	13,432,944	
Percent of Parking Spaces with EV Charger[2]	5%	
Annual VMT Reduction (Based on EV Chargers)	696,523	
Average EV Efficiency[3]	195	Wh/km
Annual EV Charging at Project Site	218,584	kWh/year
Fuel Economy of Electric Vehicle[3]	0.40	kWh/mile
Gasoline/Diesel CO2 Emissions While Running[3]	297.2	grams/mile

Step 2: Estimating GHG Emissions Reduction from Installing Electric Vehicle Charging Stations/Plugins

GHG Emissions of Gasoline/Diesel Vehicle[4]	207	MTCO2E/MWh
GHG Emissions of Electric Vehicle	0	MTCO2E/MWh
GHG Emisisons Reduction	**207**	MTCO2E/MWh

[1] Assumes 100% renewable electricity

[2] 28 EV charging spaces / 540 total spaces

[3] EMFAC2021, Los Angeles County, Year 2028

EMFAC2021 Emissions Inventory
Region Type: County
Region: Los Angeles
Calendar Year: 2028
Season: Annual
Vehicle Classification: EMFAC2007 Categories

Region	CalYr	Season	Veh_Class	Fuel	MdYr	Speed (miles/hr)	Population (vehicles)	VMT (miles/day)	Trips (trips/day)	Energy Consumption (kWh/day)		
Los Angeles	2028	Annual	HHDT	Electricity	Aggregated	Aggregated	1,528	168,704	20,878	300,882.33		
Los Angeles	2028	Annual	LDA	Electricity	Aggregated	Aggregated	246,221	11,419,406	1,210,834	4,408,833.04		
Los Angeles	2028	Annual	LDT1	Electricity	Aggregated	Aggregated	1,872	86,780	9,159	33,504.22		
Los Angeles	2028	Annual	LDT2	Electricity	Aggregated	Aggregated	25,086	861,396	126,117	332,569.77		
Los Angeles	2028	Annual	LHDT1	Electricity	Aggregated	Aggregated	7,169	450,826	100,216	252,279.96		
Los Angeles	2028	Annual	LHDT2	Electricity	Aggregated	Aggregated	1,867	111,714	24,762	62,549.48		
Los Angeles	2028	Annual	MDV	Electricity	Aggregated	Aggregated	26,159	894,991	131,365	345,540.56		
Los Angeles	2028	Annual	MHDT	Electricity	Aggregated	Aggregated	2,813	153,538	37,663	160,764.31		
Los Angeles	2028	Annual	OBUS	Electricity	Aggregated	Aggregated	81	5,758	1,613	6,059.63		
Los Angeles	2028	Annual	SBUS	Electricity	Aggregated	Aggregated	123	3,878	1,375	4,484.18		
Los Angeles	2028	Annual	UBUS	Electricity	Aggregated	Aggregated	477	50,321	1,907	105,840.27		
Los Angeles	2028	Annual	LDA	Plug-in Hybrid	Aggregated	Aggregated	114,381	2,732,014	472,964	825,149.74		
Los Angeles	2028	Annual	LDT1	Plug-in Hybrid	Aggregated	Aggregated	1,428	40,230	5,904	12,150.58		
Los Angeles	2028	Annual	LDT2	Plug-in Hybrid	Aggregated	Aggregated	24,232	630,844	100,200	190,533.69		
Los Angeles	2028	Annual	MDV	Plug-in Hybrid	Aggregated	Aggregated	14,853	360,055	61,417	108,747.41		
											Miles/kWh	kWh/mile
							Totals	17,970,454.41		7,149,889.18	**2.5**	0.40
							Total (Electric	14,207,311.14	0.79	6,013,307.75	**2.4**	0.42
							Total (Plug-in	3,763,143.27	0.21	1,136,581.43	**3.3**	0.30

5210 Pacific Concourse

SB100 - Renewable Portfolio Standards

Year	% RPS	RPS Reduction (%)	Carbon Intensity (lbs/MWh)
2022	35		552
2023			491
2024	44	-20%	439
2027	52	-15%	372
2030	60	-13%	322
2036	65	-8%	297
2045	100	-35%	0

Forecasted Build Out Year	Carbon Intensity (lbs/MWh)
2028	386

5210 Pacific Concourse

Boiler Natural Gas Consumption

Boiler Data

	Existing	Project
Building Square Footage (KSF)	170	170
Boilers Input Heat Rating (MBH)[a]	2,520	4,520
Hours per Year[b]	2,000	2,000
MMBTU/Year	5,040	9,040
kBTU/Year/KSF	**29,647**	**53,176**

Natural Gas Correction for Boilers

	CalEEMod Default[c]		Updated (kBTU/ Year/KSF)	
	Therms/ Year/KSF	kBTU/ Year/KSF	Existing	Project
Water Heater	20	2,010	29,647	53,176
Primary Heat	119	11,960		
Cooking	1	101	101	101
Cooling	18	1,809	1,809	1,809
Misc	43	4,322	4,322	4,322
Refrig	0	0	0	0
Total		20,201	35,878	59,407
Total Natural Gas Usage		3,415,623	**6,099,270**	**10,099,270**

[a] Existing boilers (990 and 1,530 MBH). Project will add 2 x 1,000 MBH boilers

[b] https://www.federalregister.gov/documents/2022/04/20/2022-08427/energy-conservation-program-energy-conservation-standards-for-commercial-packaged-boilers-response

5210 Pacific Concourse - Existing Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	5210 Pacific Concourse - Existing
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	17.6
Location	33.92602070504876, -118.37129268560577
County	Los Angeles-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4523
EDFZ	16
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.30

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
Research & Development	170	1000sqft	3.90	170,000	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-7	Adopt a Water Conservation Strategy
Waste	S-1/S-2	Implement Waste Reduction Plan

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.0	7.75	56.5	0.13	0.33	11.2	11.5	0.32	2.84	3.16	18,464
Mit.	11.0	7.75	56.5	0.13	0.33	11.2	11.5	0.32	2.84	3.16	18,199
% Reduced	—	—	—	—	—	—	—	—	—	—	1%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.77	8.04	45.2	0.13	0.31	11.2	11.5	0.31	2.84	3.15	17,911
Mit.	9.77	8.04	45.2	0.13	0.31	11.2	11.5	0.31	2.84	3.15	17,646
% Reduced	—	—	—	—	—	—	—	—	—	—	1%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.2	7.09	50.5	0.13	0.27	11.1	11.3	0.26	2.81	3.07	17,890
Mit.	10.2	7.09	50.5	0.13	0.27	11.1	11.3	0.26	2.81	3.07	17,625
% Reduced	—	—	—	—	—	—	—	—	—	—	1%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.86	1.29	9.21	0.02	0.05	2.02	2.07	0.05	0.51	0.56	2,962
Mit.	1.86	1.29	9.21	0.02	0.05	2.02	2.07	0.05	0.51	0.56	2,918

% Reduced	—	—	—	—	—	—	—	—	—	—	1%

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.84	3.76	45.7	0.12	0.07	11.2	11.3	0.06	2.84	2.91	12,120
Area	5.28	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Energy	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	4,618
Water	—	—	—	—	—	—	—	—	—	—	1,246
Waste	—	—	—	—	—	—	—	—	—	—	24.4
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	421
Total	11.0	7.75	56.5	0.13	0.33	11.2	11.5	0.32	2.84	3.16	18,464
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.79	4.11	41.7	0.11	0.07	11.2	11.3	0.06	2.84	2.91	11,598
Area	4.07	—	—	—	—	—	—	—	—	—	—
Energy	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	4,618
Water	—	—	—	—	—	—	—	—	—	—	1,246
Waste	—	—	—	—	—	—	—	—	—	—	24.4
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	421
Total	9.77	8.04	45.2	0.13	0.31	11.2	11.5	0.31	2.84	3.15	17,911
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.75	4.15	42.9	0.11	0.07	11.1	11.1	0.06	2.81	2.88	11,746
Area	4.90	0.04	5.06	< 0.005	0.01	—	0.01	0.01	—	0.01	20.9
Energy	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	4,618

Water	—	—	—	—	—	—	—	—	—	—	1,246
Waste	—	—	—	—	—	—	—	—	—	—	24.4
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	0.45	1.26	1.15	< 0.005	0.07	0.00	0.07	0.07	0.00	0.07	231
Total	10.2	7.09	50.5	0.13	0.27	11.1	11.3	0.26	2.81	3.07	17,890
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.87	0.76	7.82	0.02	0.01	2.02	2.03	0.01	0.51	0.52	1,945
Area	0.89	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46
Energy	0.02	0.30	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	765
Water	—	—	—	—	—	—	—	—	—	—	206
Waste	—	—	—	—	—	—	—	—	—	—	4.03
Refrig.	—	—	—	—	—	—	—	—	—	—	0.72
Stationary	0.08	0.23	0.21	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	38.2
Total	1.86	1.29	9.21	0.02	0.05	2.02	2.07	0.05	0.51	0.56	2,962

2.6. Operations Emissions by Sector, Mitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.84	3.76	45.7	0.12	0.07	11.2	11.3	0.06	2.84	2.91	12,120
Area	5.28	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Energy	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	4,618
Water	—	—	—	—	—	—	—	—	—	—	996
Waste	—	—	—	—	—	—	—	—	—	—	8.53
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	421
Total	11.0	7.75	56.5	0.13	0.33	11.2	11.5	0.32	2.84	3.16	18,199

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.79	4.11	41.7	0.11	0.07	11.2	11.3	0.06	2.84	2.91	11,598
Area	4.07	—	—	—	—	—	—	—	—	—	—
Energy	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	4,618
Water	—	—	—	—	—	—	—	—	—	—	996
Waste	—	—	—	—	—	—	—	—	—	—	8.53
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	421
Total	9.77	8.04	45.2	0.13	0.31	11.2	11.5	0.31	2.84	3.15	17,646
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.75	4.15	42.9	0.11	0.07	11.1	11.1	0.06	2.81	2.88	11,746
Area	4.90	0.04	5.06	< 0.005	0.01	—	0.01	0.01	—	0.01	20.9
Energy	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	4,618
Water	—	—	—	—	—	—	—	—	—	—	996
Waste	—	—	—	—	—	—	—	—	—	—	8.53
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	0.45	1.26	1.15	< 0.005	0.07	0.00	0.07	0.07	0.00	0.07	231
Total	10.2	7.09	50.5	0.13	0.27	11.1	11.3	0.26	2.81	3.07	17,625
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.87	0.76	7.82	0.02	0.01	2.02	2.03	0.01	0.51	0.52	1,945
Area	0.89	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46
Energy	0.02	0.30	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	765
Water	—	—	—	—	—	—	—	—	—	—	165
Waste	—	—	—	—	—	—	—	—	—	—	1.41
Refrig.	—	—	—	—	—	—	—	—	—	—	0.72
Stationary	0.08	0.23	0.21	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	38.2
Total	1.86	1.29	9.21	0.02	0.05	2.02	2.07	0.05	0.51	0.56	2,918

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	4.84	3.76	45.7	0.12	0.07	11.2	11.3	0.06	2.84	2.91	12,120
Total	4.84	3.76	45.7	0.12	0.07	11.2	11.3	0.06	2.84	2.91	12,120
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	4.79	4.11	41.7	0.11	0.07	11.2	11.3	0.06	2.84	2.91	11,598
Total	4.79	4.11	41.7	0.11	0.07	11.2	11.3	0.06	2.84	2.91	11,598
Annual	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.87	0.76	7.82	0.02	0.01	2.02	2.03	0.01	0.51	0.52	1,945
Total	0.87	0.76	7.82	0.02	0.01	2.02	2.03	0.01	0.51	0.52	1,945

4.1.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	4.84	3.76	45.7	0.12	0.07	11.2	11.3	0.06	2.84	2.91	12,120
Total	4.84	3.76	45.7	0.12	0.07	11.2	11.3	0.06	2.84	2.91	12,120

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	4.79	4.11	41.7	0.11	0.07	11.2	11.3	0.06	2.84	2.91	11,598
Total	4.79	4.11	41.7	0.11	0.07	11.2	11.3	0.06	2.84	2.91	11,598
Annual	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.87	0.76	7.82	0.02	0.01	2.02	2.03	0.01	0.51	0.52	1,945
Total	0.87	0.76	7.82	0.02	0.01	2.02	2.03	0.01	0.51	0.52	1,945

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	2,658
Total	—	—	—	—	—	—	—	—	—	—	2,658
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	2,658
Total	—	—	—	—	—	—	—	—	—	—	2,658
Annual	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	440
Total	—	—	—	—	—	—	—	—	—	—	440

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	2,658
Total	—	—	—	—	—	—	—	—	—	—	2,658
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	2,658
Total	—	—	—	—	—	—	—	—	—	—	2,658
Annual	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	440
Total	—	—	—	—	—	—	—	—	—	—	440

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	1,960
Total	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	1,960
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	1,960
Total	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	1,960
Annual	—	—	—	—	—	—	—	—	—	—	—

Research & Development	0.02	0.30	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	325
Total	0.02	0.30	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	325

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	1,960
Total	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	1,960
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	1,960
Total	0.09	1.64	1.38	0.01	0.12	—	0.12	0.12	—	0.12	1,960
Annual	—	—	—	—	—	—	—	—	—	—	—
Research & Development	0.02	0.30	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	325
Total	0.02	0.30	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	325

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.64	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.43	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.21	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Total	5.28	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.64	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	—	—	—	—	—	—	—	—	—	—
Total	4.07	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.66	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.08	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46
Total	0.89	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46

4.3.2. Mitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.64	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.21	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Total	5.28	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.64	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	—	—	—	—	—	—	—	—	—	—
Total	4.07	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.66	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.08	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46
Total	0.89	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	1,246
Total	—	—	—	—	—	—	—	—	—	—	1,246
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	1,246
Total	—	—	—	—	—	—	—	—	—	—	1,246
Annual	—	—	—	—	—	—	—	—	—	—	—

Research & Development	—	—	—	—	—	—	—	—	—	—	206
Total	—	—	—	—	—	—	—	—	—	—	206

4.4.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	996
Total	—	—	—	—	—	—	—	—	—	—	996
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	996
Total	—	—	—	—	—	—	—	—	—	—	996
Annual	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	165
Total	—	—	—	—	—	—	—	—	—	—	165

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	24.4

Total	—	—	—	—	—	—	—	—	—	—	24.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	24.4
Total	—	—	—	—	—	—	—	—	—	—	24.4
Annual	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	4.03
Total	—	—	—	—	—	—	—	—	—	—	4.03

4.5.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	8.53
Total	—	—	—	—	—	—	—	—	—	—	8.53
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	8.53
Total	—	—	—	—	—	—	—	—	—	—	8.53
Annual	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	1.41
Total	—	—	—	—	—	—	—	—	—	—	1.41

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	4.34
Total	—	—	—	—	—	—	—	—	—	—	4.34
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	4.34
Total	—	—	—	—	—	—	—	—	—	—	4.34
Annual	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	0.72
Total	—	—	—	—	—	—	—	—	—	—	0.72

4.6.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	4.34
Total	—	—	—	—	—	—	—	—	—	—	4.34
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	4.34
Total	—	—	—	—	—	—	—	—	—	—	4.34

Annual	—	—	—	—	—	—	—	—	—	—	—
Research & Development	—	—	—	—	—	—	—	—	—	—	0.72
Total	—	—	—	—	—	—	—	—	—	—	0.72

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	421
Total	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	421
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	421
Total	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	421
Annual	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.08	0.23	0.21	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	38.2
Total	0.08	0.23	0.21	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	38.2

4.8.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	421

Total	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	421
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	421
Total	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	421
Annual	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.08	0.23	0.21	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	38.2
Total	0.08	0.23	0.21	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	38.2

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
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
Research & Development	1,538	1,538	1,538	561,366	15,784	15,784	15,784	5,761,158

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Research & Development	1,538	1,538	1,538	561,366	15,784	15,784	15,784	5,761,158

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

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	255,000	85,000	—

5.10.3. Landscape Equipment

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

5.10.4. Landscape Equipment - Mitigated

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)
Research & Development	2,707,887	355	0.0489	0.0069	6,099,270

5.11.2. Mitigated

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)
Research & Development	2,707,887	355	0.0489	0.0069	6,099,270

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Research & Development	83,587,971	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Research & Development	66,870,377	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Research & Development	12.9	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Research & Development	4.52	—

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
Research & Development	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.14.2. Mitigated

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

Research & Development	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

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

5.15.2. Mitigated

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
Emergency Generator	Diesel	1.00	1.00	200	500	0.73

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

5.18.1.2. Mitigated

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

5.18.1.2. Mitigated

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)

5.18.2.2. Mitigated

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	5.38	annual days of extreme heat
Extreme Precipitation	4.70	annual days with precipitation above 20 mm
Sea Level Rise	—	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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 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	29.9
AQ-PM	77.1

AQ-DPM	97.5
Drinking Water	25.5
Lead Risk Housing	72.1
Pesticides	7.72
Toxic Releases	95.3
Traffic	86.5
Effect Indicators	—
CleanUp Sites	85.0
Groundwater	83.4
Haz Waste Facilities/Generators	94.7
Impaired Water Bodies	0.00
Solid Waste	64.7
Sensitive Population	—
Asthma	64.6
Cardio-vascular	65.6
Low Birth Weights	77.4
Socioeconomic Factor Indicators	—
Education	62.0
Housing	73.7
Linguistic	43.3
Poverty	46.0
Unemployment	22.6

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	30.15526755

Employed	41.16514821
Median HI	46.81124086
Education	—
Bachelor's or higher	52.44450148
High school enrollment	18.81175414
Preschool enrollment	25.06095214
Transportation	—
Auto Access	66.18760426
Active commuting	44.7324522
Social	—
2-parent households	73.32221224
Voting	52.40600539
Neighborhood	—
Alcohol availability	35.55755165
Park access	81.35506224
Retail density	91.03041191
Supermarket access	20.91620685
Tree canopy	48.9285256
Housing	—
Homeownership	33.7482356
Housing habitability	52.98344668
Low-inc homeowner severe housing cost burden	32.41370461
Low-inc renter severe housing cost burden	79.37892981
Uncrowded housing	39.26600796
Health Outcomes	—
Insured adults	16.16835622
Arthritis	90.1
Asthma ER Admissions	40.2

High Blood Pressure	79.0
Cancer (excluding skin)	85.3
Asthma	58.2
Coronary Heart Disease	83.6
Chronic Obstructive Pulmonary Disease	84.0
Diagnosed Diabetes	48.6
Life Expectancy at Birth	59.1
Cognitively Disabled	84.2
Physically Disabled	39.7
Heart Attack ER Admissions	55.3
Mental Health Not Good	44.5
Chronic Kidney Disease	64.9
Obesity	31.1
Pedestrian Injuries	74.9
Physical Health Not Good	48.3
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	26.9
Current Smoker	50.3
No Leisure Time for Physical Activity	50.2
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	59.5
Elderly	75.9
English Speaking	62.0
Foreign-born	58.3
Outdoor Workers	66.7

Climate Change Adaptive Capacity	—
Impervious Surface Cover	15.1
Traffic Density	90.8
Traffic Access	53.1
Other Indices	—
Hardship	60.4
Other Decision Support	—
2016 Voting	44.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	85.0
Healthy Places Index Score for Project Location (b)	39.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
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

Characteristics: Utility Information	SCE Year 2028 RPS
Characteristics: Project Details	EDFZ 16 = Coastal
Operations: Vehicle Data	See Operational Assumptions
Operations: Energy Use	Adjustment for boilers.
Operations: Generators + Pumps EF	—
Construction: Construction Phases	See Construction Assumptions
Construction: Off-Road Equipment	See construction assumptions
Construction: Trips and VMT	See construction assumptions
Construction: On-Road Fugitive Dust	Onsite truck travel is paved
Construction: Paving	Approximately 1 acre of disturbance.
Construction: Dust From Material Movement	Approximately 1 acre disturbed (conservative estimate)
Construction: Electricity	LADWP Year 2028 RPS
Operations: Emergency Generators and Fire Pumps	Existing Generator. Up to 500 hp

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	5210 Pacific Concourse - Project
Construction Start Date	3/9/2026
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	17.6
Location	33.92602070504876, -118.37129268560577
County	Los Angeles-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4523
EDFZ	16
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.30

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	71.3	1000sqft	1.64	71,300	2,000	—	—	—

Research & Development	98.7	1000sqft	2.27	98,700	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-7	Adopt a Water Conservation Strategy
Waste	S-1/S-2	Implement Waste Reduction Plan

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.6	12.2	17.7	0.03	0.38	2.35	2.58	0.35	0.45	0.66	4,734
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.1	13.3	19.3	0.04	0.41	2.35	2.58	0.38	0.45	0.71	5,071
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.85	6.00	9.12	0.02	0.18	0.87	1.03	0.17	0.19	0.34	2,513
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.89	1.09	1.66	< 0.005	0.03	0.16	0.19	0.03	0.03	0.06	416

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	1.37	12.2	17.7	0.03	0.38	2.35	2.58	0.35	0.45	0.66	4,734
2027	12.6	8.48	13.7	0.02	0.25	1.06	1.31	0.23	0.26	0.49	3,583
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	1.00	9.89	11.6	0.03	0.26	2.35	2.58	0.23	0.45	0.66	3,831
2027	13.1	13.3	19.3	0.04	0.41	1.34	1.76	0.38	0.33	0.71	5,071
2028	12.5	8.10	12.9	0.02	0.23	1.06	1.29	0.21	0.26	0.47	3,502
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	0.61	5.66	7.54	0.02	0.16	0.87	1.03	0.15	0.19	0.34	2,265
2027	4.85	6.00	9.12	0.02	0.18	0.72	0.90	0.17	0.17	0.34	2,513
2028	0.17	0.11	0.18	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	48.2
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.11	1.03	1.38	< 0.005	0.03	0.16	0.19	0.03	0.03	0.06	375
2027	0.89	1.09	1.66	< 0.005	0.03	0.13	0.16	0.03	0.03	0.06	416
2028	0.03	0.02	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.97

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	1.37	12.2	17.7	0.03	0.38	2.35	2.58	0.35	0.45	0.66	4,734
2027	12.6	8.48	13.7	0.02	0.25	1.06	1.31	0.23	0.26	0.49	3,583
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	1.00	9.89	11.6	0.03	0.26	2.35	2.58	0.23	0.45	0.66	3,831

2027	13.1	13.3	19.3	0.04	0.41	1.34	1.76	0.38	0.33	0.71	5,071
2028	12.5	8.10	12.9	0.02	0.23	1.06	1.29	0.21	0.26	0.47	3,502
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	0.61	5.66	7.54	0.02	0.16	0.87	1.03	0.15	0.19	0.34	2,265
2027	4.85	6.00	9.12	0.02	0.18	0.72	0.90	0.17	0.17	0.34	2,513
2028	0.17	0.11	0.18	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	48.2
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.11	1.03	1.38	< 0.005	0.03	0.16	0.19	0.03	0.03	0.06	375
2027	0.89	1.09	1.66	< 0.005	0.03	0.13	0.16	0.03	0.03	0.06	416
2028	0.03	0.02	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.97

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	18.0	17.1	119	0.29	0.40	26.1	26.5	0.39	6.63	7.02	34,121
Mit.	18.0	17.1	119	0.29	0.40	26.1	26.5	0.39	6.63	7.02	33,073
% Reduced	—	—	—	—	—	—	—	—	—	—	3%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.6	17.9	103	0.28	0.39	26.1	26.5	0.38	6.63	7.01	32,872
Mit.	16.6	17.9	103	0.28	0.39	26.1	26.5	0.38	6.63	7.01	31,825
% Reduced	—	—	—	—	—	—	—	—	—	—	3%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	18.9	24.7	114	0.29	0.43	25.8	26.2	0.42	6.56	6.97	34,003
Mit.	18.9	24.7	114	0.29	0.43	25.8	26.2	0.42	6.56	6.97	32,955
% Reduced	—	—	—	—	—	—	—	—	—	—	3%

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.44	4.51	20.9	0.05	0.08	4.71	4.79	0.08	1.20	1.27	5,630
Mit.	3.44	4.51	20.9	0.05	0.08	4.71	4.79	0.08	1.20	1.27	5,456
% Reduced	—	—	—	—	—	—	—	—	—	—	3%

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.3	8.76	106	0.27	0.16	26.1	26.3	0.15	6.63	6.78	28,260
Area	5.28	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Energy	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Water	—	—	—	—	—	—	—	—	—	—	472
Waste	—	—	—	—	—	—	—	—	—	—	1,466
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	18.0	17.1	119	0.29	0.40	26.1	26.5	0.39	6.63	7.02	34,121
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.2	9.58	97.2	0.26	0.16	26.1	26.3	0.15	6.63	6.78	27,042
Area	4.07	—	—	—	—	—	—	—	—	—	—
Energy	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Water	—	—	—	—	—	—	—	—	—	—	472
Waste	—	—	—	—	—	—	—	—	—	—	1,466
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	16.6	17.9	103	0.28	0.39	26.1	26.5	0.38	6.63	7.01	32,872
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Mobile	11.1	9.68	99.9	0.26	0.16	25.8	26.0	0.15	6.56	6.71	27,386
Area	4.90	0.04	5.06	< 0.005	0.01	—	0.01	0.01	—	0.01	20.9
Energy	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Water	—	—	—	—	—	—	—	—	—	—	472
Waste	—	—	—	—	—	—	—	—	—	—	1,466
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	2.74	12.3	6.99	0.01	0.05	0.00	0.05	0.05	0.00	0.05	1,407
Total	18.9	24.7	114	0.29	0.43	25.8	26.2	0.42	6.56	6.97	34,003
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.02	1.77	18.2	0.05	0.03	4.71	4.74	0.03	1.20	1.22	4,534
Area	0.89	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46
Energy	0.03	0.50	0.42	< 0.005	0.04	—	0.04	0.04	—	0.04	537
Water	—	—	—	—	—	—	—	—	—	—	78.2
Waste	—	—	—	—	—	—	—	—	—	—	243
Refrig.	—	—	—	—	—	—	—	—	—	—	0.72
Stationary	0.50	2.24	1.28	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	233
Total	3.44	4.51	20.9	0.05	0.08	4.71	4.79	0.08	1.20	1.27	5,630

2.6. Operations Emissions by Sector, Mitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.3	8.76	106	0.27	0.16	26.1	26.3	0.15	6.63	6.78	28,260
Area	5.28	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Energy	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Water	—	—	—	—	—	—	—	—	—	—	378
Waste	—	—	—	—	—	—	—	—	—	—	513

Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	18.0	17.1	119	0.29	0.40	26.1	26.5	0.39	6.63	7.02	33,073
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.2	9.58	97.2	0.26	0.16	26.1	26.3	0.15	6.63	6.78	27,042
Area	4.07	—	—	—	—	—	—	—	—	—	—
Energy	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Water	—	—	—	—	—	—	—	—	—	—	378
Waste	—	—	—	—	—	—	—	—	—	—	513
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	16.6	17.9	103	0.28	0.39	26.1	26.5	0.38	6.63	7.01	31,825
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.1	9.68	99.9	0.26	0.16	25.8	26.0	0.15	6.56	6.71	27,386
Area	4.90	0.04	5.06	< 0.005	0.01	—	0.01	0.01	—	0.01	20.9
Energy	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Water	—	—	—	—	—	—	—	—	—	—	378
Waste	—	—	—	—	—	—	—	—	—	—	513
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	2.74	12.3	6.99	0.01	0.05	0.00	0.05	0.05	0.00	0.05	1,407
Total	18.9	24.7	114	0.29	0.43	25.8	26.2	0.42	6.56	6.97	32,955
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.02	1.77	18.2	0.05	0.03	4.71	4.74	0.03	1.20	1.22	4,534
Area	0.89	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46
Energy	0.03	0.50	0.42	< 0.005	0.04	—	0.04	0.04	—	0.04	537
Water	—	—	—	—	—	—	—	—	—	—	62.6
Waste	—	—	—	—	—	—	—	—	—	—	85.0
Refrig.	—	—	—	—	—	—	—	—	—	—	0.72

Stationary	0.50	2.24	1.28	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	233
Total	3.44	4.51	20.9	0.05	0.08	4.71	4.79	0.08	1.20	1.27	5,456

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.10	9.78	0.02	0.19	—	0.19	0.18	—	0.18	1,251
Demolition	—	—	—	—	—	1.53	1.53	—	0.23	0.23	—
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.10	9.78	0.02	0.19	—	0.19	0.18	—	0.18	1,251
Demolition	—	—	—	—	—	1.53	1.53	—	0.23	0.23	—
Onsite truck	< 0.005	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.6
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.46	2.01	< 0.005	0.04	—	0.04	0.04	—	0.04	257
Demolition	—	—	—	—	—	0.31	0.31	—	0.05	0.05	—
Onsite truck	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.80
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.27	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	42.5
Demolition	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—

Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.63
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.97	0.00	0.00	0.20	0.20	0.00	0.05	0.05	206
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	2.50	0.90	0.02	0.03	0.62	0.65	0.03	0.17	0.20	2,371
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	2.60	0.90	0.02	0.03	0.62	0.65	0.03	0.17	0.20	2,367
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	40.7
Vendor	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	0.54	0.18	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	487
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.74
Vendor	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	0.10	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	80.6

3.2. Demolition (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.10	9.78	0.02	0.19	—	0.19	0.18	—	0.18	1,251

Demolition	—	—	—	—	—	1.53	1.53	—	0.23	0.23	—
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.10	9.78	0.02	0.19	—	0.19	0.18	—	0.18	1,251
Demolition	—	—	—	—	—	1.53	1.53	—	0.23	0.23	—
Onsite truck	< 0.005	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.6
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.46	2.01	< 0.005	0.04	—	0.04	0.04	—	0.04	257
Demolition	—	—	—	—	—	0.31	0.31	—	0.05	0.05	—
Onsite truck	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.80
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.27	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	42.5
Demolition	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.63
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.97	0.00	0.00	0.20	0.20	0.00	0.05	0.05	206
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	2.50	0.90	0.02	0.03	0.62	0.65	0.03	0.17	0.20	2,371
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	2.60	0.90	0.02	0.03	0.62	0.65	0.03	0.17	0.20	2,367
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	40.7

Vendor	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	0.54	0.18	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	487
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.74
Vendor	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	0.10	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	80.6

3.3. Grading (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.90
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.38
Annual	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.06
Offsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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	0.94	0.34	0.01	0.01	0.23	0.24	0.01	0.06	0.08	889
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	48.7
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.06

3.4. Grading (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.90
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.38
Annual	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.06
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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	0.94	0.34	0.01	0.01	0.23	0.24	0.01	0.06	0.08	889
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	48.7
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.06

3.5. Building Construction (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	6.56	7.83	0.02	0.25	—	0.25	0.23	—	0.23	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	6.56	7.83	0.02	0.25	—	0.25	0.23	—	0.23	1,739
Onsite truck	0.01	0.12	0.10	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	19.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	2.48	2.96	0.01	0.09	—	0.09	0.09	—	0.09	657
Onsite truck	< 0.005	0.05	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.14
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.45	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	109
Onsite truck	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.18
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.21	3.51	0.00	0.00	0.71	0.71	0.00	0.17	0.17	748
Vendor	0.02	0.82	0.40	0.01	0.01	0.21	0.22	0.01	0.06	0.06	783
Hauling	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	0.20	0.24	3.00	0.00	0.00	0.71	0.71	0.00	0.17	0.17	707
Vendor	0.02	0.86	0.41	0.01	0.01	0.21	0.22	0.01	0.06	0.06	781
Hauling	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	0.07	0.10	1.19	0.00	0.00	0.27	0.27	0.00	0.06	0.06	271

Vendor	0.01	0.33	0.15	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	295
Hauling	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	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01	44.9
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	48.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	6.56	7.83	0.02	0.25	—	0.25	0.23	—	0.23	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	6.56	7.83	0.02	0.25	—	0.25	0.23	—	0.23	1,739
Onsite truck	0.01	0.12	0.10	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	19.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	2.48	2.96	0.01	0.09	—	0.09	0.09	—	0.09	657
Onsite truck	< 0.005	0.05	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.14
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.45	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	109
Onsite truck	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.18
Offsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.21	3.51	0.00	0.00	0.71	0.71	0.00	0.17	0.17	748
Vendor	0.02	0.82	0.40	0.01	0.01	0.21	0.22	0.01	0.06	0.06	783
Hauling	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	0.20	0.24	3.00	0.00	0.00	0.71	0.71	0.00	0.17	0.17	707
Vendor	0.02	0.86	0.41	0.01	0.01	0.21	0.22	0.01	0.06	0.06	781
Hauling	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	0.07	0.10	1.19	0.00	0.00	0.27	0.27	0.00	0.06	0.06	271
Vendor	0.01	0.33	0.15	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	295
Hauling	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	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01	44.9
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	48.9
Hauling	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 (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	6.24	7.80	0.02	0.22	—	0.22	0.21	—	0.21	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.63	6.24	7.80	0.02	0.22	—	0.22	0.21	—	0.21	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	4.46	5.57	0.01	0.16	—	0.16	0.15	—	0.15	1,242
Onsite truck	< 0.005	0.08	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.81	1.02	< 0.005	0.03	—	0.03	0.03	—	0.03	206
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.20
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.19	3.27	0.00	0.00	0.71	0.71	0.00	0.17	0.17	734
Vendor	0.02	0.79	0.38	0.01	0.01	0.21	0.21	0.01	0.06	0.06	767
Hauling	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	0.19	0.23	2.77	0.00	0.00	0.71	0.71	0.00	0.17	0.17	693
Vendor	0.02	0.82	0.38	0.01	0.01	0.21	0.21	0.01	0.06	0.06	765
Hauling	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	0.14	0.17	2.08	0.00	0.00	0.50	0.50	0.00	0.12	0.12	503
Vendor	0.02	0.59	0.27	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	547
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.38	0.00	0.00	0.09	0.09	0.00	0.02	0.02	83.3
Vendor	< 0.005	0.11	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	90.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2027) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	6.24	7.80	0.02	0.22	—	0.22	0.21	—	0.21	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	6.24	7.80	0.02	0.22	—	0.22	0.21	—	0.21	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	4.46	5.57	0.01	0.16	—	0.16	0.15	—	0.15	1,242
Onsite truck	< 0.005	0.08	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.81	1.02	< 0.005	0.03	—	0.03	0.03	—	0.03	206
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.20
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.19	3.27	0.00	0.00	0.71	0.71	0.00	0.17	0.17	734
Vendor	0.02	0.79	0.38	0.01	0.01	0.21	0.21	0.01	0.06	0.06	767
Hauling	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	0.19	0.23	2.77	0.00	0.00	0.71	0.71	0.00	0.17	0.17	693

Vendor	0.02	0.82	0.38	0.01	0.01	0.21	0.21	0.01	0.06	0.06	765
Hauling	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	0.14	0.17	2.08	0.00	0.00	0.50	0.50	0.00	0.12	0.12	503
Vendor	0.02	0.59	0.27	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	547
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.38	0.00	0.00	0.09	0.09	0.00	0.02	0.02	83.3
Vendor	< 0.005	0.11	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	90.6
Hauling	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 (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	5.86	7.81	0.02	0.20	—	0.20	0.19	—	0.19	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.8
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.25
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.94
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04

Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.21	2.61	0.00	0.00	0.71	0.71	0.00	0.17	0.17	681
Vendor	0.02	0.79	0.37	0.01	0.01	0.21	0.21	0.01	0.06	0.06	748
Hauling	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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.48
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.3
Hauling	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.57
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.70
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2028) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	5.86	7.81	0.02	0.20	—	0.20	0.19	—	0.19	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.8
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.25
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.94
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.21	2.61	0.00	0.00	0.71	0.71	0.00	0.17	0.17	681
Vendor	0.02	0.79	0.37	0.01	0.01	0.21	0.21	0.01	0.06	0.06	748
Hauling	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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.48
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.3
Hauling	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.57
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.70
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	3.74	5.29	0.01	0.15	—	0.15	0.14	—	0.14	807
Paving	0.12	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.23	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	48.6
Paving	0.01	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.09
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.05
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.18
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.04	0.51	0.00	0.00	0.13	0.13	0.00	0.03	0.03	127
Vendor	0.01	0.79	0.34	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	585
Hauling	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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.80
Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	35.3
Hauling	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.29
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.84

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Paving (2027) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	3.74	5.29	0.01	0.15	—	0.15	0.14	—	0.14	807
Paving	0.12	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.23	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	48.6
Paving	0.01	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.09
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.05
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.18
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.04	0.51	0.00	0.00	0.13	0.13	0.00	0.03	0.03	127
Vendor	0.01	0.79	0.34	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	585

Hauling	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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.80
Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	35.3
Hauling	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.29
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.84
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	179
Architectural Coatings	11.5	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	179
Architectural Coatings	11.5	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.40	0.54	< 0.005	0.01	—	0.01	0.01	—	0.01	64.3

Architectural Coatings	4.14	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	10.6
Architectural Coatings	0.76	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.65	0.00	0.00	0.14	0.14	0.00	0.03	0.03	147
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.55	0.00	0.00	0.14	0.14	0.00	0.03	0.03	139
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	50.7
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.40
Vendor	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

3.14. Architectural Coating (2027) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	179
Architectural Coatings	11.5	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	179
Architectural Coatings	11.5	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.40	0.54	< 0.005	0.01	—	0.01	0.01	—	0.01	64.3
Architectural Coatings	4.14	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	10.6
Architectural Coatings	0.76	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.65	0.00	0.00	0.14	0.14	0.00	0.03	0.03	147

Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.55	0.00	0.00	0.14	0.14	0.00	0.03	0.03	139
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	50.7
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.40
Vendor	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

3.15. Architectural Coating (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.08	1.49	< 0.005	0.02	—	0.02	0.02	—	0.02	179
Architectural Coatings	11.5	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.45
Architectural Coatings	0.16	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.41
Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.52	0.00	0.00	0.14	0.14	0.00	0.03	0.03	136
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.90
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.31
Vendor	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

3.16. Architectural Coating (2028) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.08	1.49	< 0.005	0.02	—	0.02	0.02	—	0.02	179
Architectural Coatings	11.5	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.45
Architectural Coatings	0.16	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.41
Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.52	0.00	0.00	0.14	0.14	0.00	0.03	0.03	136
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.90
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.31
Vendor	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

3.17. Trenching (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	3.78	5.17	0.01	0.12	—	0.12	0.11	—	0.11	744
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.60
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.52	0.71	< 0.005	0.02	—	0.02	0.02	—	0.02	102
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.63
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.9
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Worker	0.03	0.03	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	103
Vendor	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	0.63	0.22	< 0.005	0.01	0.16	0.16	0.01	0.04	0.05	593
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	13.6
Vendor	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	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	81.1
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.25
Vendor	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	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.4

3.18. Trenching (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	3.78	5.17	0.01	0.12	—	0.12	0.11	—	0.11	744
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.60
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.52	0.71	< 0.005	0.02	—	0.02	0.02	—	0.02	102
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.63
Annual	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.09	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.9
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	103
Vendor	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	0.63	0.22	< 0.005	0.01	0.16	0.16	0.01	0.04	0.05	593
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	13.6
Vendor	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	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	81.1
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.25
Vendor	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	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.4

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Medical Office Building	8.47	6.58	80.0	0.20	0.12	19.6	19.7	0.11	4.98	5.09	21,222
Research & Development	2.81	2.18	26.5	0.07	0.04	6.50	6.54	0.04	1.65	1.69	7,038
Total	11.3	8.76	106	0.27	0.16	26.1	26.3	0.15	6.63	6.78	28,260
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	8.38	7.20	73.0	0.20	0.12	19.6	19.7	0.11	4.98	5.09	20,308
Research & Development	2.78	2.39	24.2	0.06	0.04	6.50	6.54	0.04	1.65	1.69	6,734
Total	11.2	9.58	97.2	0.26	0.16	26.1	26.3	0.15	6.63	6.78	27,042
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	1.52	1.33	13.7	0.04	0.02	3.54	3.56	0.02	0.90	0.92	3,405
Research & Development	0.50	0.44	4.54	0.01	0.01	1.17	1.18	0.01	0.30	0.30	1,129
Total	2.02	1.77	18.2	0.05	0.03	4.71	4.74	0.03	1.20	1.22	4,534

4.1.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	8.47	6.58	80.0	0.20	0.12	19.6	19.7	0.11	4.98	5.09	21,222
Research & Development	2.81	2.18	26.5	0.07	0.04	6.50	6.54	0.04	1.65	1.69	7,038
Total	11.3	8.76	106	0.27	0.16	26.1	26.3	0.15	6.63	6.78	28,260
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	8.38	7.20	73.0	0.20	0.12	19.6	19.7	0.11	4.98	5.09	20,308

Research & Development	2.78	2.39	24.2	0.06	0.04	6.50	6.54	0.04	1.65	1.69	6,734
Total	11.2	9.58	97.2	0.26	0.16	26.1	26.3	0.15	6.63	6.78	27,042
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	1.52	1.33	13.7	0.04	0.02	3.54	3.56	0.02	0.90	0.92	3,405
Research & Development	0.50	0.44	4.54	0.01	0.01	1.17	1.18	0.01	0.30	0.30	1,129
Total	2.02	1.77	18.2	0.05	0.03	4.71	4.74	0.03	1.20	1.22	4,534

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.00

Research & Development	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Research & Development	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Research & Development	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.03	0.50	0.42	< 0.005	0.04	—	0.04	0.04	—	0.04	537
Research & Development	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.03	0.50	0.42	< 0.005	0.04	—	0.04	0.04	—	0.04	537

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Research & Development	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Medical Office Building	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Research & Development	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.15	2.71	2.28	0.02	0.21	—	0.21	0.21	—	0.21	3,246
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.03	0.50	0.42	< 0.005	0.04	—	0.04	0.04	—	0.04	537
Research & Development	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.03	0.50	0.42	< 0.005	0.04	—	0.04	0.04	—	0.04	537

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.64	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.21	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Total	5.28	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.64	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	—	—	—	—	—	—	—	—	—	—

Total	4.07	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.66	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.08	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46
Total	0.89	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46

4.3.2. Mitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.64	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.21	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Total	5.28	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.64	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	—	—	—	—	—	—	—	—	—	—
Total	4.07	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.66	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.08	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46
Total	0.89	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	73.5
Research & Development	—	—	—	—	—	—	—	—	—	—	399
Total	—	—	—	—	—	—	—	—	—	—	472
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	73.5
Research & Development	—	—	—	—	—	—	—	—	—	—	399
Total	—	—	—	—	—	—	—	—	—	—	472
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	12.2
Research & Development	—	—	—	—	—	—	—	—	—	—	66.0
Total	—	—	—	—	—	—	—	—	—	—	78.2

4.4.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	58.8
Research & Development	—	—	—	—	—	—	—	—	—	—	319
Total	—	—	—	—	—	—	—	—	—	—	378
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	58.8
Research & Development	—	—	—	—	—	—	—	—	—	—	319
Total	—	—	—	—	—	—	—	—	—	—	378
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	9.74
Research & Development	—	—	—	—	—	—	—	—	—	—	52.8
Total	—	—	—	—	—	—	—	—	—	—	62.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Medical Office Building	—	—	—	—	—	—	—	—	—	—	1,452
Research & Development	—	—	—	—	—	—	—	—	—	—	14.1
Total	—	—	—	—	—	—	—	—	—	—	1,466
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	1,452
Research & Development	—	—	—	—	—	—	—	—	—	—	14.1
Total	—	—	—	—	—	—	—	—	—	—	1,466
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	240
Research & Development	—	—	—	—	—	—	—	—	—	—	2.34
Total	—	—	—	—	—	—	—	—	—	—	243

4.5.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	508
Research & Development	—	—	—	—	—	—	—	—	—	—	4.95
Total	—	—	—	—	—	—	—	—	—	—	513
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	508

Research & Development	—	—	—	—	—	—	—	—	—	—	4.95
Total	—	—	—	—	—	—	—	—	—	—	513
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	84.1
Research & Development	—	—	—	—	—	—	—	—	—	—	0.82
Total	—	—	—	—	—	—	—	—	—	—	85.0

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	1.82
Research & Development	—	—	—	—	—	—	—	—	—	—	2.52
Total	—	—	—	—	—	—	—	—	—	—	4.34
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	1.82
Research & Development	—	—	—	—	—	—	—	—	—	—	2.52
Total	—	—	—	—	—	—	—	—	—	—	4.34
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.30

Research & Development	—	—	—	—	—	—	—	—	—	—	0.42
Total	—	—	—	—	—	—	—	—	—	—	0.72

4.6.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	1.82
Research & Development	—	—	—	—	—	—	—	—	—	—	2.52
Total	—	—	—	—	—	—	—	—	—	—	4.34
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	1.82
Research & Development	—	—	—	—	—	—	—	—	—	—	2.52
Total	—	—	—	—	—	—	—	—	—	—	4.34
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.30
Research & Development	—	—	—	—	—	—	—	—	—	—	0.42
Total	—	—	—	—	—	—	—	—	—	—	0.72

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Annual	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.50	2.24	1.28	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	233
Total	0.50	2.24	1.28	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	233

4.8.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Annual	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.50	2.24	1.28	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	233

Total	0.50	2.24	1.28	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	233

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

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

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
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	3/9/2026	6/19/2026	5.00	75.0	—
Grading	Grading	6/22/2026	7/17/2026	5.00	20.0	—

Building Construction	Building Construction	6/22/2026	1/7/2028	5.00	405	—
Paving	Paving	12/1/2027	12/30/2027	5.00	22.0	—
Architectural Coating	Architectural Coating	7/1/2027	1/7/2028	5.00	137	—
Trenching	Trenching	7/20/2026	9/25/2026	5.00	50.0	—

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	Air Compressors	Diesel	Average	4.00	8.00	37.0	0.48
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	8.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Aerial Lifts	Diesel	Average	1.00	8.00	46.0	0.31
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Trenching	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50

5.2.2. Mitigated

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	Air Compressors	Diesel	Average	4.00	8.00	37.0	0.48
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	8.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Aerial Lifts	Diesel	Average	1.00	8.00	46.0	0.31
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Trenching	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
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	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	16.0	42.0	HHDT
Demolition	Onsite truck	8.00	0.15	HHDT
Grading	—	—	—	—
Grading	Worker	0.00	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	6.00	42.0	HHDT
Grading	Onsite truck	3.00	0.15	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	54.4	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	24.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	12.0	0.15	HHDT,MHDT
Paving	—	—	—	—
Paving	Worker	10.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	16.0	10.2	HHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	8.00	0.15	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	10.9	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	7.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	0.00	10.2	HHDT,MHDT
Trenching	Hauling	4.00	42.0	HHDT

Trenching	Onsite truck	2.00	0.15	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	16.0	42.0	HHDT
Demolition	Onsite truck	8.00	0.15	HHDT
Grading	—	—	—	—
Grading	Worker	0.00	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	6.00	42.0	HHDT
Grading	Onsite truck	3.00	0.15	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	54.4	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	24.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	12.0	0.15	HHDT,MHDT
Paving	—	—	—	—
Paving	Worker	10.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	16.0	10.2	HHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	8.00	0.15	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	10.9	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	7.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	0.00	10.2	HHDT,MHDT
Trenching	Hauling	4.00	42.0	HHDT
Trenching	Onsite truck	2.00	0.15	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	0.00	0.00	255,000	85,000	—

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 (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	175,000	—
Grading	—	95.0	1.00	0.00	—
Paving	0.00	0.00	0.00	0.00	1.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Medical Office Building	1.00	100%
Research & Development	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	428	0.05	0.01
2027	0.00	407	0.05	0.01
2028	0.00	386	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
Medical Office Building	2,693	2,693	2,693	982,945	27,638	27,638	27,638	10,087,714
Research & Development	893	893	893	325,959	9,165	9,165	9,165	3,345,230

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Medical Office Building	2,693	2,693	2,693	982,945	27,638	27,638	27,638	10,087,714

Research & Development	893	893	893	325,959	9,165	9,165	9,165	3,345,230

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

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	255,000	85,000	—

5.10.3. Landscape Equipment

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

5.10.4. Landscape Equipment - Mitigated

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	1,135,720	0.00	0.0000	0.0000	10,099,270
Research & Development	1,572,168	0.00	0.0000	0.0000	0.00

5.11.2. Mitigated

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	1,135,720	0.00	0.0000	0.0000	10,099,270
Research & Development	1,572,168	0.00	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Medical Office Building	8,946,762	28,049
Research & Development	48,530,193	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Medical Office Building	7,157,410	22,439
Research & Development	38,824,154	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Medical Office Building	770	—

Research & Development	7.50	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Medical Office Building	270	—
Research & Development	2.63	—

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
Research & Development	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.14.2. Mitigated

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

Research & Development	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

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

5.15.2. Mitigated

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
Emergency Generator	Diesel	4.00	0.25	200	762	0.73

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

5.18.1.2. Mitigated

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

5.18.1.2. Mitigated

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)

5.18.2.2. Mitigated

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	5.38	annual days of extreme heat
Extreme Precipitation	4.70	annual days with precipitation above 20 mm
Sea Level Rise	—	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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 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	29.9
AQ-PM	77.1

AQ-DPM	97.5
Drinking Water	25.5
Lead Risk Housing	72.1
Pesticides	7.72
Toxic Releases	95.3
Traffic	86.5
Effect Indicators	—
CleanUp Sites	85.0
Groundwater	83.4
Haz Waste Facilities/Generators	94.7
Impaired Water Bodies	0.00
Solid Waste	64.7
Sensitive Population	—
Asthma	64.6
Cardio-vascular	65.6
Low Birth Weights	77.4
Socioeconomic Factor Indicators	—
Education	62.0
Housing	73.7
Linguistic	43.3
Poverty	46.0
Unemployment	22.6

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	30.15526755

Employed	41.16514821
Median HI	46.81124086
Education	—
Bachelor's or higher	52.44450148
High school enrollment	18.81175414
Preschool enrollment	25.06095214
Transportation	—
Auto Access	66.18760426
Active commuting	44.7324522
Social	—
2-parent households	73.32221224
Voting	52.40600539
Neighborhood	—
Alcohol availability	35.55755165
Park access	81.35506224
Retail density	91.03041191
Supermarket access	20.91620685
Tree canopy	48.9285256
Housing	—
Homeownership	33.7482356
Housing habitability	52.98344668
Low-inc homeowner severe housing cost burden	32.41370461
Low-inc renter severe housing cost burden	79.37892981
Uncrowded housing	39.26600796
Health Outcomes	—
Insured adults	16.16835622
Arthritis	90.1
Asthma ER Admissions	40.2

High Blood Pressure	79.0
Cancer (excluding skin)	85.3
Asthma	58.2
Coronary Heart Disease	83.6
Chronic Obstructive Pulmonary Disease	84.0
Diagnosed Diabetes	48.6
Life Expectancy at Birth	59.1
Cognitively Disabled	84.2
Physically Disabled	39.7
Heart Attack ER Admissions	55.3
Mental Health Not Good	44.5
Chronic Kidney Disease	64.9
Obesity	31.1
Pedestrian Injuries	74.9
Physical Health Not Good	48.3
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	26.9
Current Smoker	50.3
No Leisure Time for Physical Activity	50.2
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	59.5
Elderly	75.9
English Speaking	62.0
Foreign-born	58.3
Outdoor Workers	66.7

Climate Change Adaptive Capacity	—
Impervious Surface Cover	15.1
Traffic Density	90.8
Traffic Access	53.1
Other Indices	—
Hardship	60.4
Other Decision Support	—
2016 Voting	44.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	85.0
Healthy Places Index Score for Project Location (b)	39.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
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

Characteristics: Utility Information	100% Green Power
Characteristics: Project Details	EDFZ 16 = Coastal
Operations: Vehicle Data	See Operational Assumptions
Operations: Energy Use	Adjustment for boilers. All boiler natural gas consumption assigned to medical office building
Operations: Generators + Pumps EF	SCAQMD Rule 1470 PM10 emission factor for >750 hp generator, within 50 meters of sensitive use
Construction: Construction Phases	See Construction Assumptions
Construction: Off-Road Equipment	See construction assumptions
Construction: Trips and VMT	See construction assumptions
Construction: On-Road Fugitive Dust	Onsite truck travel is paved
Construction: Paving	Approximately 1 acre of disturbance.
Construction: Dust From Material Movement	Approximately 1 acre disturbed (conservative estimate)
Construction: Electricity	SCE Year 2028 RPS
Operations: Emergency Generators and Fire Pumps	Max of one generator tested per day for 1-hr (0.25 hr x 4 generators)

5210 Pacific Concourse - Construction Onsite Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	5210 Pacific Concourse - Construction Onsite
Construction Start Date	3/9/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	17.6
Location	33.92602070504876, -118.37129268560577
County	Los Angeles-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4523
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas
App Version	2022.1.1.30

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	71.3	1000sqft	1.64	71,300	2,000	—	—	—

Research & Development	98.7	1000sqft	2.27	98,700	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-7	Adopt a Water Conservation Strategy
Waste	S-1/S-2	Implement Waste Reduction Plan

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.6	10.5	13.1	0.02	0.37	1.53	1.73	0.34	0.23	0.41	2,507
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.2	11.3	14.8	0.03	0.40	1.53	1.73	0.37	0.23	0.41	2,761
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.81	5.17	6.50	0.01	0.18	0.32	0.47	0.16	0.05	0.19	1,369
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.88	0.94	1.19	< 0.005	0.03	0.06	0.08	0.03	0.01	0.03	227

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	1.11	10.5	13.1	0.02	0.37	1.53	1.73	0.34	0.23	0.41	2,507
2027	12.6	7.46	9.39	0.02	0.25	< 0.005	0.25	0.23	< 0.005	0.23	1,936
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	0.92	7.22	9.87	0.02	0.25	1.53	1.73	0.23	0.23	0.41	1,758
2027	13.2	11.3	14.8	0.03	0.40	< 0.005	0.40	0.37	< 0.005	0.37	2,761
2028	12.6	7.06	9.39	0.02	0.22	< 0.005	0.22	0.20	< 0.005	0.20	1,936
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	0.50	4.53	5.73	0.01	0.15	0.32	0.47	0.14	0.05	0.19	1,028
2027	4.81	5.17	6.50	0.01	0.18	< 0.005	0.18	0.16	< 0.005	0.16	1,369
2028	0.17	0.10	0.13	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	26.5
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.09	0.83	1.05	< 0.005	0.03	0.06	0.08	0.03	0.01	0.03	170
2027	0.88	0.94	1.19	< 0.005	0.03	< 0.005	0.03	0.03	< 0.005	0.03	227
2028	0.03	0.02	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.39

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	1.11	10.5	13.1	0.02	0.37	1.53	1.73	0.34	0.23	0.41	2,507
2027	12.6	7.46	9.39	0.02	0.25	< 0.005	0.25	0.23	< 0.005	0.23	1,936
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	0.92	7.22	9.87	0.02	0.25	1.53	1.73	0.23	0.23	0.41	1,758

2027	13.2	11.3	14.8	0.03	0.40	< 0.005	0.40	0.37	< 0.005	0.37	2,761
2028	12.6	7.06	9.39	0.02	0.22	< 0.005	0.22	0.20	< 0.005	0.20	1,936
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	0.50	4.53	5.73	0.01	0.15	0.32	0.47	0.14	0.05	0.19	1,028
2027	4.81	5.17	6.50	0.01	0.18	< 0.005	0.18	0.16	< 0.005	0.16	1,369
2028	0.17	0.10	0.13	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	26.5
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.09	0.83	1.05	< 0.005	0.03	0.06	0.08	0.03	0.01	0.03	170
2027	0.88	0.94	1.19	< 0.005	0.03	< 0.005	0.03	0.03	< 0.005	0.03	227
2028	0.03	0.02	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.39

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.10	9.78	0.02	0.19	—	0.19	0.18	—	0.18	1,251
Demolition	—	—	—	—	—	1.53	1.53	—	0.23	0.23	—
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.10	9.78	0.02	0.19	—	0.19	0.18	—	0.18	1,251
Demolition	—	—	—	—	—	1.53	1.53	—	0.23	0.23	—
Onsite truck	< 0.005	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.6

Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.46	2.01	< 0.005	0.04	—	0.04	0.04	—	0.04	257
Demolition	—	—	—	—	—	0.31	0.31	—	0.05	0.05	—
Onsite truck	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.80
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.27	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	42.5
Demolition	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.63
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.2. Demolition (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.10	9.78	0.02	0.19	—	0.19	0.18	—	0.18	1,251
Demolition	—	—	—	—	—	1.53	1.53	—	0.23	0.23	—
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.10	9.78	0.02	0.19	—	0.19	0.18	—	0.18	1,251
Demolition	—	—	—	—	—	1.53	1.53	—	0.23	0.23	—
Onsite truck	< 0.005	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.6
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.46	2.01	< 0.005	0.04	—	0.04	0.04	—	0.04	257
Demolition	—	—	—	—	—	0.31	0.31	—	0.05	0.05	—
Onsite truck	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.80
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.27	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	42.5
Demolition	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.63
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.3. Grading (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.90
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.38
Annual	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.06
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.4. Grading (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.90
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.38
Annual	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.06
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vendor	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

3.5. Building Construction (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	6.56	7.83	0.02	0.25	—	0.25	0.23	—	0.23	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	6.56	7.83	0.02	0.25	—	0.25	0.23	—	0.23	1,739
Onsite truck	0.01	0.12	0.10	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	19.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	2.48	2.96	0.01	0.09	—	0.09	0.09	—	0.09	657
Onsite truck	< 0.005	0.05	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.14
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.45	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	109
Onsite truck	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.18
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.6. Building Construction (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	6.56	7.83	0.02	0.25	—	0.25	0.23	—	0.23	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	6.56	7.83	0.02	0.25	—	0.25	0.23	—	0.23	1,739
Onsite truck	0.01	0.12	0.10	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	19.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.25	2.48	2.96	0.01	0.09	—	0.09	0.09	—	0.09	657
Onsite truck	< 0.005	0.05	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.14
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.45	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	109
Onsite truck	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.18
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.7. Building Construction (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	6.24	7.80	0.02	0.22	—	0.22	0.21	—	0.21	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	6.24	7.80	0.02	0.22	—	0.22	0.21	—	0.21	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	4.46	5.57	0.01	0.16	—	0.16	0.15	—	0.15	1,242
Onsite truck	< 0.005	0.08	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.81	1.02	< 0.005	0.03	—	0.03	0.03	—	0.03	206
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.20
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.8. Building Construction (2027) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	6.24	7.80	0.02	0.22	—	0.22	0.21	—	0.21	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	6.24	7.80	0.02	0.22	—	0.22	0.21	—	0.21	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	4.46	5.57	0.01	0.16	—	0.16	0.15	—	0.15	1,242
Onsite truck	< 0.005	0.08	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.81	1.02	< 0.005	0.03	—	0.03	0.03	—	0.03	206

Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.20
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.9. Building Construction (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.61	5.86	7.81	0.02	0.20	—	0.20	0.19	—	0.19	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.8
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.25
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.94
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.10. Building Construction (2028) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	5.86	7.81	0.02	0.20	—	0.20	0.19	—	0.19	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.8
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.25
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.94
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vendor	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

3.11. Paving (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	3.74	5.29	0.01	0.15	—	0.15	0.14	—	0.14	807
Paving	0.12	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.23	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	48.6
Paving	0.01	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.09
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.05
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.18
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.12. Paving (2027) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	3.74	5.29	0.01	0.15	—	0.15	0.14	—	0.14	807
Paving	0.12	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.23	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	48.6
Paving	0.01	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.09
Annual	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.05
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.18
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.13. Architectural Coating (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	179

Architectural Coatings	11.8	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	179
Architectural Coatings	11.8	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.40	0.54	< 0.005	0.01	—	0.01	0.01	—	0.01	64.3
Architectural Coatings	4.27	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	10.6
Architectural Coatings	0.78	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.14. Architectural Coating (2027) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	179
Architectural Coatings	11.8	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	179
Architectural Coatings	11.8	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.40	0.54	< 0.005	0.01	—	0.01	0.01	—	0.01	64.3

Architectural Coatings	4.27	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	10.6
Architectural Coatings	0.78	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.15. Architectural Coating (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.08	1.49	< 0.005	0.02	—	0.02	0.02	—	0.02	179
Architectural Coatings	11.8	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.45
Architectural Coatings	0.16	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.41
Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.16. Architectural Coating (2028) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.08	1.49	< 0.005	0.02	—	0.02	0.02	—	0.02	179
Architectural Coatings	11.8	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.45
Architectural Coatings	0.16	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.41

Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.17. Trenching (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	3.78	5.17	0.01	0.12	—	0.12	0.11	—	0.11	744
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.60

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.52	0.71	< 0.005	0.02	—	0.02	0.02	—	0.02	102
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.63
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.9
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

3.18. Trenching (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	3.78	5.17	0.01	0.12	—	0.12	0.11	—	0.11	744
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.60
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.52	0.71	< 0.005	0.02	—	0.02	0.02	—	0.02	102
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.63
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.9
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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

4. Operations Emissions Details

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
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	3/9/2026	6/19/2026	5.00	75.0	—
Grading	Grading	6/22/2026	7/17/2026	5.00	20.0	—
Building Construction	Building Construction	6/22/2026	1/7/2028	5.00	405	—
Paving	Paving	12/1/2027	12/30/2027	5.00	22.0	—
Architectural Coating	Architectural Coating	7/1/2027	1/7/2028	5.00	137	—
Trenching	Trenching	7/20/2026	9/25/2026	5.00	50.0	—

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	Air Compressors	Diesel	Average	4.00	8.00	37.0	0.48
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	8.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Aerial Lifts	Diesel	Average	1.00	8.00	46.0	0.31
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48

Trenching	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50

5.2.2. Mitigated

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	Air Compressors	Diesel	Average	4.00	8.00	37.0	0.48
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	8.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Aerial Lifts	Diesel	Average	1.00	8.00	46.0	0.31
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Trenching	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
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	0.00	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	0.00	42.0	HHDT
Demolition	Onsite truck	8.00	0.15	HHDT
Grading	—	—	—	—
Grading	Worker	0.00	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	42.0	HHDT
Grading	Onsite truck	3.00	0.15	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	0.00	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	0.00	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	12.0	0.15	HHDT,MHDT
Paving	—	—	—	—
Paving	Worker	0.00	18.5	LDA,LDT1,LDT2
Paving	Vendor	0.00	10.2	HHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	8.00	0.15	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.00	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	0.00	18.5	LDA,LDT1,LDT2
Trenching	Vendor	0.00	10.2	HHDT,MHDT
Trenching	Hauling	0.00	42.0	HHDT
Trenching	Onsite truck	2.00	0.15	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	0.00	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	0.00	42.0	HHDT
Demolition	Onsite truck	8.00	0.15	HHDT
Grading	—	—	—	—
Grading	Worker	0.00	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	42.0	HHDT
Grading	Onsite truck	3.00	0.15	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	0.00	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	0.00	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	12.0	0.15	HHDT,MHDT
Paving	—	—	—	—
Paving	Worker	0.00	18.5	LDA,LDT1,LDT2
Paving	Vendor	0.00	10.2	HHDT
Paving	Hauling	0.00	20.0	HHDT

Paving	Onsite truck	8.00	0.15	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.00	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	0.00	18.5	LDA,LDT1,LDT2
Trenching	Vendor	0.00	10.2	HHDT,MHDT
Trenching	Hauling	0.00	42.0	HHDT
Trenching	Onsite truck	2.00	0.15	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	0.00	0.00	262,500	87,500	—

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 (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	175,000	—
Grading	—	95.0	1.00	0.00	—

Paving	0.00	0.00	0.00	0.00	1.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Medical Office Building	1.00	100%
Research & Development	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	439	0.05	0.01
2027	0.00	417	0.05	0.01
2028	0.00	396	0.05	0.01

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

5.18.1.2. Mitigated

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

5.18.1.2. Mitigated

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)

5.18.2.2. Mitigated

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	5.38	annual days of extreme heat
Extreme Precipitation	4.70	annual days with precipitation above 20 mm
Sea Level Rise	—	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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 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	29.9
AQ-PM	77.1
AQ-DPM	97.5
Drinking Water	25.5
Lead Risk Housing	72.1
Pesticides	7.72
Toxic Releases	95.3
Traffic	86.5
Effect Indicators	—
CleanUp Sites	85.0
Groundwater	83.4

Haz Waste Facilities/Generators	94.7
Impaired Water Bodies	0.00
Solid Waste	64.7
Sensitive Population	—
Asthma	64.6
Cardio-vascular	65.6
Low Birth Weights	77.4
Socioeconomic Factor Indicators	—
Education	62.0
Housing	73.7
Linguistic	43.3
Poverty	46.0
Unemployment	22.6

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	30.15526755
Employed	41.16514821
Median HI	46.81124086
Education	—
Bachelor's or higher	52.44450148
High school enrollment	18.81175414
Preschool enrollment	25.06095214
Transportation	—
Auto Access	66.18760426
Active commuting	44.7324522

Social	—
2-parent households	73.32221224
Voting	52.40600539
Neighborhood	—
Alcohol availability	35.55755165
Park access	81.35506224
Retail density	91.03041191
Supermarket access	20.91620685
Tree canopy	48.9285256
Housing	—
Homeownership	33.7482356
Housing habitability	52.98344668
Low-inc homeowner severe housing cost burden	32.41370461
Low-inc renter severe housing cost burden	79.37892981
Uncrowded housing	39.26600796
Health Outcomes	—
Insured adults	16.16835622
Arthritis	90.1
Asthma ER Admissions	40.2
High Blood Pressure	79.0
Cancer (excluding skin)	85.3
Asthma	58.2
Coronary Heart Disease	83.6
Chronic Obstructive Pulmonary Disease	84.0
Diagnosed Diabetes	48.6
Life Expectancy at Birth	59.1
Cognitively Disabled	84.2
Physically Disabled	39.7

Heart Attack ER Admissions	55.3
Mental Health Not Good	44.5
Chronic Kidney Disease	64.9
Obesity	31.1
Pedestrian Injuries	74.9
Physical Health Not Good	48.3
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	26.9
Current Smoker	50.3
No Leisure Time for Physical Activity	50.2
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	59.5
Elderly	75.9
English Speaking	62.0
Foreign-born	58.3
Outdoor Workers	66.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	15.1
Traffic Density	90.8
Traffic Access	53.1
Other Indices	—
Hardship	60.4
Other Decision Support	—
2016 Voting	44.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	85.0
Healthy Places Index Score for Project Location (b)	39.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
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
Characteristics: Utility Information	LADWP Year 2028 RPS
Characteristics: Project Details	EDFZ 16 = LADWP Coastal
Operations: Vehicle Data	See Operational Assumptions
Operations: Energy Use	Adjustment for boilers. All boiler natural gas consumption assigned to medical office building
Operations: Generators + Pumps EF	SCAQMD Rule 1470 PM10 emission factor for >750 hp generator, within 50 meters of sensitive use
Construction: Construction Phases	See Construction Assumptions
Construction: Off-Road Equipment	See construction assumptions
Construction: Trips and VMT	Onsite Only

Construction: On-Road Fugitive Dust	Onsite truck travel is paved
Construction: Paving	Approximately 1 acre of disturbance.
Construction: Dust From Material Movement	Approximately 1 acre disturbed (conservative estimate)
Construction: Electricity	LADWP Year 2028 RPS

UCLA Health Sports Medicine Institute Project (5210 Pacific Concourse Tenant Improvements)

Appendix AQ-4: Evaluation of an All-Electric Building

eyestone ENVIRONMENTAL

MEMORANDUM

TO: **Ashley Rogers, UCLA Capital Programs**

FROM: **Eyestone Environmental**

SUBJECT: UCLA Health Sports Medicine Institute Project (5210 Pacific Concourse Tenant Improvements) — Evaluation of All-Electric Building

DATE: November 17, 2025

Eyestone Environmental has prepared an Air Quality and Greenhouse Gas (GHG) technical report for the UCLA Health Sports Medicine Institute Project (Project). The Air Quality and Greenhouse Gas values presented in the technical report assume natural gas consumption for existing boilers to remain on site and new boilers to be added as part of the Project.

The Project applicant will comply with SCAQMD Rule 1146.2 which requires boilers greater than 400,000 BTU per hour and less than or equal to 2,000,000 BTU per hour to be zero emissions after year 2031 for existing buildings. However, the Project applicant may include an option for all-electric design where boilers would be zero emissions. An all-electric building would decrease natural gas usage and would increase building electrification, which would result in a reduction in the Project's air quality and GHG emissions.

This memorandum addresses the potential environmental effects of an all-electric Project and compares the conclusions contained in the Air Quality and GHG Technical Report, to an all-electric Project. As demonstrated in the discussion below, the Project's implementation of an all-electric design would reduce the Project's overall Air Quality and GHG emissions, and the impact conclusions of the technical report remain unchanged

IMPACT EVALUATION

Project operational energy consumption was calculated for the technical report, which includes natural gas, electricity, and transportation fuels. Air quality and GHG emissions associated with energy consumption were calculated for the Project and are included in Table 3 and 6 of the technical report, respectively. The Project's natural gas consumption and electricity demand calculated for the technical report were based on default rates contained in the California Air Pollution Control Officers Association (CAPCOA) CalEEMod model Version 2022.1.

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The CAPCOA Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (CAPCOA Handbook for Analyzing Greenhouse Gas Emissions) identified an energy and GHG reduction measure where developments use all-electric appliances and end uses.[1] According to the CAPCOA Handbook for Analyzing Greenhouse Gas Emissions, using electric instead of natural gas-powered appliances and end uses replaces a more emissions-intensive fossil fuel source of energy with a less emissions-intensive source of energy—electricity—from the grid that is increasingly transitioning to renewable sources.

Under an all-electric option, the Project would increase the amount of building electrification in comparison to a project that relies on natural gas for heating purposes. As a result, this increases electricity consumption and decreases natural gas consumption compared to the assumptions in the technical report.

Air Quality

Based on CalEEMod methodology, criteria pollutant emissions associated with on-site energy usage are calculated only for natural gas consumption. Criteria pollutants are also emitted during the generation of electricity at power plants. When electricity is used in buildings, the electricity generation typically takes place at offsite power plants. Because power plants are existing stationary sources permitted by air districts and/or the USEPA, criteria pollutant emissions are generally associated with the power plants themselves, and not individual buildings or electricity users. Additionally, criteria pollutant emissions from power plants are subject to local, State, and federal control measures, which are considered to be the maximum feasible level of mitigation for emissions associated with combustion based power generation. CalEEMod, therefore, does not calculate criteria pollutant emissions from regional power plants associated with building electricity use.

As shown in Table 1 on page 4, operational criteria pollutant emissions with increased electrification of the Project would be less than what was reported in the technical report. Removal of existing natural gas boilers would result in a net reduction in energy-related pollutant emissions. As discussed above, electricity emissions from the

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[1] *CAPCOA Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Appendix C. Table E-15. December 2021.*

increase of Project-related electricity use is not accounted for as part of the Project. In addition, natural gas emissions represent a small fraction of total Project operational emissions. Thus, a reduction in natural gas usage under an all-electric scenario does not substantially reduce Project operational emissions, as demonstrated in the comparison shown above in Table 1. Increased electrification of the Project would not create any new significant impacts related to SCAQMD regional significance thresholds, and such impacts would be within the envelope of impacts considered and analyzed in the technical report.

Greenhouse Gas

GHG emissions are emitted as a result of activities in buildings when electricity and natural gas are used as energy sources. Combustion of any type of fuel emits pollutant emissions directly into the atmosphere; and when this occurs in a building, it is a direct emission source associated with that building. Pollutant emissions are also emitted during the generation of electricity from fossil fuels. When electricity is used in a building, the electricity generation typically takes place off-site at the power plant and, therefore, electricity use in a building generally causes emissions in an indirect manner.

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building,

Table 1
Estimate of Maximum Regional Project Daily Operational Emissions—At Project Buildout

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Project Net Increase (as analyzed in the Technical Report)[a]						
Area	<1	<1	<1	<1	<1	<1
Energy (Natural Gas)	<1	1	1	<1	<1	<1
Mobile	6	5	56	<1	15	4
Stationary	<1	3	1	<1	<1	<1
Total Proposed Uses Emissions	**7**	**10**	**58**	**<1**	**15**	**4**
Project Net Increase (All-Electric Scenario)[b]						
Area	<1	<1	<1	<1	<1	<1
Energy (Natural Gas)[c]	<1	(2)	(1)	<1	<1	<1
Mobile	6	5	56	<1	15	4
Stationary	<1	3	1	<1	<1	<1
Total Proposed Uses Emissions	**7**	**7**	**55**	**<1**	**15**	**4**
Difference	(<1)	(2)	(3)	(<1)	(<1)	(<1)
SCAQMD Significance Threshold	55	55	550	150	150	55

Numbers may not add up exactly due to rounding.

[a] *The CalEEMod model printout sheets and/or calculation worksheets are presented in the UCLA Health Sports Medicine Institute Project Technical Report.*

[b] *The CalEEMod model printout sheets and/or calculation worksheets are presented in Attachment A of this memorandum.*

[c] *CalEEMod methodology only calculates criteria pollutant emissions related to on-site energy for natural gas consumption. Electricity generation would occur off-site and would be regulated by EPA or SCAQMD regulations.*

Source: Eyestone Environmental, 2025.

such as in plug-in appliances. CalEEMod calculates (i) energy use from systems covered by Title 24 Building Energy Efficiency Standards (e.g., heating, ventilation, and air conditioning [HVAC] system, water heating system, and lighting system), (ii) energy uses not covered by Title 24, such as lighting, and (iii) energy use from office equipment, appliances and plug-ins.

Electricity usage rates within CalEEMod are provided for a variety of land uses. For projects with a mix of land uses, CalEEMod takes into account each land use type when calculating GHG emissions. As the Project consists of medical office uses, electricity usage rates and associated emissions are calculated based on usage rates within CalEEMod for medical office land uses. CalEEMod does not provide electricity demand rates for water heating and HVAC purposes. Instead, electricity demand rates for the water heating and HVAC uses were calculated based on information provided by the Project applicant.

GHG emissions from electricity use are directly dependent on the electricity utility provider. Southern California Edison (SCE) provides electric service to the Project Site. Also, the Project would commit to purchasing 100 percent renewable electricity as a Project Design Feature. Thus, GHG intensity factors for the Project was set to zero.

As shown in Table 2 on page 6, operational GHG emissions with increased electrification of the Project would decrease in comparison to what was reported in

Table 2
Annual Project GHG Emissions Summary (Buildout Year) – Net Increase
(metric tons of carbon dioxide equivalent [$MTCO_2e$])[a]

Scope	Project as Analyzed in the Technical Report	Project All Electric	Change Associated with Increased Building Electrification
Mobile	2,589	2,589	0
Area[b]	0	0	0
Energy[c]	(228)	(765)	(537)
Water/Wastewater[e]	(102)	(102)	0
Solid Waste[d]	84	84	0
Refrigerant	0	0	0
Emergency Generators	195	195	0
Electric Vehicle Charging Credit	(207)	(207)	0
Construction	27	27	0
Total Emissions	**2,357**	**1,820**	(537)

Numbers may not add up exactly due to rounding.

[a] *CO_2e was calculated using CalEEMod and the results are provided in Section 2.0 of the Operation CalEEMod output file within Appendix AQ-3 of this Technical Report. Emissions represent net increase (Project minus Existing uses to be removed)*

[b] *Area source emissions are from landscape equipment. Landscaping activities under the Project would be similar or the same as under the existing uses. Therefore, the net increase in landscaping emissions would be zero.*

[c] *Energy source emissions are based on CalEEMod default electricity and natural gas usage rates.*

[d] *Solid waste emissions are calculated based on CalEEMod default solid waste generation rates.*

[e] *Water/Wastewater emissions are calculated based on CalEEMod default water consumption rates.*

Source: Eyestone Environmental, 2025.

In the technical report due to electrification of the boilers. As such, increased electrification of the Project would not create any new significant impacts related to GHG emissions nor result in a substantial increase in a previously identified significant impact in the technical report. Therefore, all impacts would be within the envelope of impacts analyzed in the technical report.

UCLA Health Sports Medicine Institute Project (5210 Pacific Concourse Tenant Improvements)

All-Electric Memo Worksheets

5210 Pacific Concourse

Boiler Natural Gas Consumption

Boiler Data

	Existing	Project
Building Square Footage (KSF)	170	170
Existing Boilers Input Heat Rating (MBH)	2,520	4,600
Hours per Year[a]	2,000	2,000
MMBTU/Year	5,040	9,200
kBTU/Year/KSF	**29,647**	**54,118**

Natural Gas Correction for Boilers

	CalEEMod Default[b]		Updated (kBTU/ Year/KSF)		Equivalent kWh/year
	Therms/ Year/KSF	kBTU/ Year/KSF	Existing	Project	
Water Heater	20	2,010	29,647	54,118	
Primary Heat	119	11,960			
Cooking	1	101	101	101	
Cooling	18	1,809	1,809	1,809	
Misc	43	4,322	4,322	4,322	
Refrig	0	0	0	0	
Total		20,201	35,878	60,349	
Total Natural Gas Usage		3,415,623	**6,099,270**	**10,259,270**	
Equivalent kWh/Year[c]				3,005,966	
CalEEMod Default Electricity (Medical Office) (kwh/year)				1,135,720	
Adjusted CalEEMod Electricity (Medical Office) (kWh/year)				4,141,686	

[a] https://www.federalregister.gov/documents/2022/04/20/2022-08427/energy-conservation-program-energy-conservation-standards-for-commercial-packaged-boilers-response

[b] CAPCOA Handbook for Analyzing Greenhouse Gas Emission Reductions, Appendix C, Table E-15.2

5210 Pacific Concourse - Project (All Electric) Detailed Report

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1.1. Basic Project Information

Data Field	Value
Project Name	5210 Pacific Concourse - Project (All Electric)
Construction Start Date	3/9/2026
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	17.6
Location	33.92602070504876, -118.37129268560577
County	Los Angeles-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4523
EDFZ	16
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.30

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	71.3	1000sqft	1.64	71,300	2,000	—	—	—

Research & Development	98.7	1000sqft	2.27	98,700	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-7	Adopt a Water Conservation Strategy
Waste	S-1/S-2	Implement Waste Reduction Plan

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.6	12.2	17.7	0.03	0.38	2.35	2.58	0.35	0.45	0.66	4,734
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.1	13.3	19.3	0.04	0.41	2.35	2.58	0.38	0.45	0.71	5,071
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.85	6.00	9.12	0.02	0.18	0.87	1.03	0.17	0.19	0.34	2,513
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.89	1.09	1.66	< 0.005	0.03	0.16	0.19	0.03	0.03	0.06	416

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	1.37	12.2	17.7	0.03	0.38	2.35	2.58	0.35	0.45	0.66	4,734
2027	12.6	8.48	13.7	0.02	0.25	1.06	1.31	0.23	0.26	0.49	3,583
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	1.00	9.89	11.6	0.03	0.26	2.35	2.58	0.23	0.45	0.66	3,831
2027	13.1	13.3	19.3	0.04	0.41	1.34	1.76	0.38	0.33	0.71	5,071
2028	12.5	8.10	12.9	0.02	0.23	1.06	1.29	0.21	0.26	0.47	3,502
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	0.61	5.66	7.54	0.02	0.16	0.87	1.03	0.15	0.19	0.34	2,265
2027	4.85	6.00	9.12	0.02	0.18	0.72	0.90	0.17	0.17	0.34	2,513
2028	0.17	0.11	0.18	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	48.2
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.11	1.03	1.38	< 0.005	0.03	0.16	0.19	0.03	0.03	0.06	375
2027	0.89	1.09	1.66	< 0.005	0.03	0.13	0.16	0.03	0.03	0.06	416
2028	0.03	0.02	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.97

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	1.37	12.2	17.7	0.03	0.38	2.35	2.58	0.35	0.45	0.66	4,734
2027	12.6	8.48	13.7	0.02	0.25	1.06	1.31	0.23	0.26	0.49	3,583
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	1.00	9.89	11.6	0.03	0.26	2.35	2.58	0.23	0.45	0.66	3,831

2027	13.1	13.3	19.3	0.04	0.41	1.34	1.76	0.38	0.33	0.71	5,071
2028	12.5	8.10	12.9	0.02	0.23	1.06	1.29	0.21	0.26	0.47	3,502
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	0.61	5.66	7.54	0.02	0.16	0.87	1.03	0.15	0.19	0.34	2,265
2027	4.85	6.00	9.12	0.02	0.18	0.72	0.90	0.17	0.17	0.34	2,513
2028	0.17	0.11	0.18	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	48.2
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.11	1.03	1.38	< 0.005	0.03	0.16	0.19	0.03	0.03	0.06	375
2027	0.89	1.09	1.66	< 0.005	0.03	0.13	0.16	0.03	0.03	0.06	416
2028	0.03	0.02	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.97

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	17.8	14.4	117	0.28	0.20	26.1	26.3	0.18	6.63	6.81	30,875
Mit.	17.8	14.4	117	0.28	0.20	26.1	26.3	0.18	6.63	6.81	29,827
% Reduced	—	—	—	—	—	—	—	—	—	—	3%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.5	15.2	100	0.27	0.19	26.1	26.3	0.17	6.63	6.80	29,627
Mit.	16.5	15.2	100	0.27	0.19	26.1	26.3	0.17	6.63	6.80	28,579
% Reduced	—	—	—	—	—	—	—	—	—	—	4%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	18.7	22.0	112	0.28	0.22	25.8	26.0	0.21	6.56	6.77	30,757
Mit.	18.7	22.0	112	0.28	0.22	25.8	26.0	0.21	6.56	6.77	29,709
% Reduced	—	—	—	—	—	—	—	—	—	—	3%

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.42	4.01	20.4	0.05	0.04	4.71	4.75	0.04	1.20	1.23	5,092
Mit.	3.42	4.01	20.4	0.05	0.04	4.71	4.75	0.04	1.20	1.23	4,919
% Reduced	—	—	—	—	—	—	—	—	—	—	3%

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.3	8.76	106	0.27	0.16	26.1	26.3	0.15	6.63	6.78	28,260
Area	5.28	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	472
Waste	—	—	—	—	—	—	—	—	—	—	1,466
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	17.8	14.4	117	0.28	0.20	26.1	26.3	0.18	6.63	6.81	30,875
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.2	9.58	97.2	0.26	0.16	26.1	26.3	0.15	6.63	6.78	27,042
Area	4.07	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	472
Waste	—	—	—	—	—	—	—	—	—	—	1,466
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	16.5	15.2	100	0.27	0.19	26.1	26.3	0.17	6.63	6.80	29,627
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Mobile	11.1	9.68	99.9	0.26	0.16	25.8	26.0	0.15	6.56	6.71	27,386
Area	4.90	0.04	5.06	< 0.005	0.01	—	0.01	0.01	—	0.01	20.9
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	472
Waste	—	—	—	—	—	—	—	—	—	—	1,466
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	2.74	12.3	6.99	0.01	0.05	0.00	0.05	0.05	0.00	0.05	1,407
Total	18.7	22.0	112	0.28	0.22	25.8	26.0	0.21	6.56	6.77	30,757
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.02	1.77	18.2	0.05	0.03	4.71	4.74	0.03	1.20	1.22	4,534
Area	0.89	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	78.2
Waste	—	—	—	—	—	—	—	—	—	—	243
Refrig.	—	—	—	—	—	—	—	—	—	—	0.72
Stationary	0.50	2.24	1.28	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	233
Total	3.42	4.01	20.4	0.05	0.04	4.71	4.75	0.04	1.20	1.23	5,092

2.6. Operations Emissions by Sector, Mitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.3	8.76	106	0.27	0.16	26.1	26.3	0.15	6.63	6.78	28,260
Area	5.28	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	378
Waste	—	—	—	—	—	—	—	—	—	—	513

Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	17.8	14.4	117	0.28	0.20	26.1	26.3	0.18	6.63	6.81	29,827
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.2	9.58	97.2	0.26	0.16	26.1	26.3	0.15	6.63	6.78	27,042
Area	4.07	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	378
Waste	—	—	—	—	—	—	—	—	—	—	513
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	16.5	15.2	100	0.27	0.19	26.1	26.3	0.17	6.63	6.80	28,579
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.1	9.68	99.9	0.26	0.16	25.8	26.0	0.15	6.56	6.71	27,386
Area	4.90	0.04	5.06	< 0.005	0.01	—	0.01	0.01	—	0.01	20.9
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	378
Waste	—	—	—	—	—	—	—	—	—	—	513
Refrig.	—	—	—	—	—	—	—	—	—	—	4.34
Stationary	2.74	12.3	6.99	0.01	0.05	0.00	0.05	0.05	0.00	0.05	1,407
Total	18.7	22.0	112	0.28	0.22	25.8	26.0	0.21	6.56	6.77	29,709
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.02	1.77	18.2	0.05	0.03	4.71	4.74	0.03	1.20	1.22	4,534
Area	0.89	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	62.6
Waste	—	—	—	—	—	—	—	—	—	—	85.0
Refrig.	—	—	—	—	—	—	—	—	—	—	0.72

Stationary	0.50	2.24	1.28	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	233
Total	3.42	4.01	20.4	0.05	0.04	4.71	4.75	0.04	1.20	1.23	4,919

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.10	9.78	0.02	0.19	—	0.19	0.18	—	0.18	1,251
Demolition	—	—	—	—	—	1.53	1.53	—	0.23	0.23	—
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.10	9.78	0.02	0.19	—	0.19	0.18	—	0.18	1,251
Demolition	—	—	—	—	—	1.53	1.53	—	0.23	0.23	—
Onsite truck	< 0.005	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.6
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.46	2.01	< 0.005	0.04	—	0.04	0.04	—	0.04	257
Demolition	—	—	—	—	—	0.31	0.31	—	0.05	0.05	—
Onsite truck	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.80
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.27	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	42.5
Demolition	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—

Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.63
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.97	0.00	0.00	0.20	0.20	0.00	0.05	0.05	206
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	2.50	0.90	0.02	0.03	0.62	0.65	0.03	0.17	0.20	2,371
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	2.60	0.90	0.02	0.03	0.62	0.65	0.03	0.17	0.20	2,367
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	40.7
Vendor	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	0.54	0.18	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	487
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.74
Vendor	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	0.10	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	80.6

3.2. Demolition (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.10	9.78	0.02	0.19	—	0.19	0.18	—	0.18	1,251

Demolition	—	—	—	—	—	1.53	1.53	—	0.23	0.23	—
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	7.10	9.78	0.02	0.19	—	0.19	0.18	—	0.18	1,251
Demolition	—	—	—	—	—	1.53	1.53	—	0.23	0.23	—
Onsite truck	< 0.005	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.6
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.46	2.01	< 0.005	0.04	—	0.04	0.04	—	0.04	257
Demolition	—	—	—	—	—	0.31	0.31	—	0.05	0.05	—
Onsite truck	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.80
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.27	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	42.5
Demolition	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.63
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.97	0.00	0.00	0.20	0.20	0.00	0.05	0.05	206
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	2.50	0.90	0.02	0.03	0.62	0.65	0.03	0.17	0.20	2,371
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	2.60	0.90	0.02	0.03	0.62	0.65	0.03	0.17	0.20	2,367
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	40.7

Vendor	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	0.54	0.18	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	487
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.74
Vendor	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	0.10	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	80.6

3.3. Grading (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.90
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.38
Annual	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.06
Offsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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	0.94	0.34	0.01	0.01	0.23	0.24	0.01	0.06	0.08	889
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	48.7
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.06

3.4. Grading (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.90
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.38
Annual	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.06
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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	0.94	0.34	0.01	0.01	0.23	0.24	0.01	0.06	0.08	889
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	48.7
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	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	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.06

3.5. Building Construction (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	6.56	7.83	0.02	0.25	—	0.25	0.23	—	0.23	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	6.56	7.83	0.02	0.25	—	0.25	0.23	—	0.23	1,739
Onsite truck	0.01	0.12	0.10	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	19.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	2.48	2.96	0.01	0.09	—	0.09	0.09	—	0.09	657
Onsite truck	< 0.005	0.05	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.14
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.45	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	109
Onsite truck	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.18
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.21	3.51	0.00	0.00	0.71	0.71	0.00	0.17	0.17	748
Vendor	0.02	0.82	0.40	0.01	0.01	0.21	0.22	0.01	0.06	0.06	783
Hauling	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	0.20	0.24	3.00	0.00	0.00	0.71	0.71	0.00	0.17	0.17	707
Vendor	0.02	0.86	0.41	0.01	0.01	0.21	0.22	0.01	0.06	0.06	781
Hauling	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	0.07	0.10	1.19	0.00	0.00	0.27	0.27	0.00	0.06	0.06	271

Vendor	0.01	0.33	0.15	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	295
Hauling	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	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01	44.9
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	48.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	6.56	7.83	0.02	0.25	—	0.25	0.23	—	0.23	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	6.56	7.83	0.02	0.25	—	0.25	0.23	—	0.23	1,739
Onsite truck	0.01	0.12	0.10	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	19.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	2.48	2.96	0.01	0.09	—	0.09	0.09	—	0.09	657
Onsite truck	< 0.005	0.05	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.14
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.45	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	109
Onsite truck	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.18
Offsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.21	3.51	0.00	0.00	0.71	0.71	0.00	0.17	0.17	748
Vendor	0.02	0.82	0.40	0.01	0.01	0.21	0.22	0.01	0.06	0.06	783
Hauling	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	0.20	0.24	3.00	0.00	0.00	0.71	0.71	0.00	0.17	0.17	707
Vendor	0.02	0.86	0.41	0.01	0.01	0.21	0.22	0.01	0.06	0.06	781
Hauling	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	0.07	0.10	1.19	0.00	0.00	0.27	0.27	0.00	0.06	0.06	271
Vendor	0.01	0.33	0.15	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	295
Hauling	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	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01	44.9
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	48.9
Hauling	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 (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	6.24	7.80	0.02	0.22	—	0.22	0.21	—	0.21	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.63	6.24	7.80	0.02	0.22	—	0.22	0.21	—	0.21	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	4.46	5.57	0.01	0.16	—	0.16	0.15	—	0.15	1,242
Onsite truck	< 0.005	0.08	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.81	1.02	< 0.005	0.03	—	0.03	0.03	—	0.03	206
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.20
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.19	3.27	0.00	0.00	0.71	0.71	0.00	0.17	0.17	734
Vendor	0.02	0.79	0.38	0.01	0.01	0.21	0.21	0.01	0.06	0.06	767
Hauling	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	0.19	0.23	2.77	0.00	0.00	0.71	0.71	0.00	0.17	0.17	693
Vendor	0.02	0.82	0.38	0.01	0.01	0.21	0.21	0.01	0.06	0.06	765
Hauling	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	0.14	0.17	2.08	0.00	0.00	0.50	0.50	0.00	0.12	0.12	503
Vendor	0.02	0.59	0.27	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	547
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.38	0.00	0.00	0.09	0.09	0.00	0.02	0.02	83.3
Vendor	< 0.005	0.11	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	90.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2027) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	6.24	7.80	0.02	0.22	—	0.22	0.21	—	0.21	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	6.24	7.80	0.02	0.22	—	0.22	0.21	—	0.21	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	4.46	5.57	0.01	0.16	—	0.16	0.15	—	0.15	1,242
Onsite truck	< 0.005	0.08	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.81	1.02	< 0.005	0.03	—	0.03	0.03	—	0.03	206
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.20
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.19	3.27	0.00	0.00	0.71	0.71	0.00	0.17	0.17	734
Vendor	0.02	0.79	0.38	0.01	0.01	0.21	0.21	0.01	0.06	0.06	767
Hauling	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	0.19	0.23	2.77	0.00	0.00	0.71	0.71	0.00	0.17	0.17	693

Vendor	0.02	0.82	0.38	0.01	0.01	0.21	0.21	0.01	0.06	0.06	765
Hauling	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	0.14	0.17	2.08	0.00	0.00	0.50	0.50	0.00	0.12	0.12	503
Vendor	0.02	0.59	0.27	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	547
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.38	0.00	0.00	0.09	0.09	0.00	0.02	0.02	83.3
Vendor	< 0.005	0.11	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	90.6
Hauling	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 (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	5.86	7.81	0.02	0.20	—	0.20	0.19	—	0.19	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.8
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.25
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.94
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04

Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.21	2.61	0.00	0.00	0.71	0.71	0.00	0.17	0.17	681
Vendor	0.02	0.79	0.37	0.01	0.01	0.21	0.21	0.01	0.06	0.06	748
Hauling	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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.48
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.3
Hauling	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.57
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.70
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2028) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	5.86	7.81	0.02	0.20	—	0.20	0.19	—	0.19	1,739
Onsite truck	0.01	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.8
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.25
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.94
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.21	2.61	0.00	0.00	0.71	0.71	0.00	0.17	0.17	681
Vendor	0.02	0.79	0.37	0.01	0.01	0.21	0.21	0.01	0.06	0.06	748
Hauling	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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.48
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.3
Hauling	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.57
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.70
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	3.74	5.29	0.01	0.15	—	0.15	0.14	—	0.14	807
Paving	0.12	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.23	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	48.6
Paving	0.01	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.09
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.05
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.18
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.04	0.51	0.00	0.00	0.13	0.13	0.00	0.03	0.03	127
Vendor	0.01	0.79	0.34	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	585
Hauling	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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.80
Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	35.3
Hauling	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.29
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.84

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Paving (2027) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	3.74	5.29	0.01	0.15	—	0.15	0.14	—	0.14	807
Paving	0.12	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.12	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.23	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	48.6
Paving	0.01	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.09
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.05
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.18
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.04	0.51	0.00	0.00	0.13	0.13	0.00	0.03	0.03	127
Vendor	0.01	0.79	0.34	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	585

Hauling	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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.80
Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	35.3
Hauling	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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.29
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.84
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	179
Architectural Coatings	11.5	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	179
Architectural Coatings	11.5	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.40	0.54	< 0.005	0.01	—	0.01	0.01	—	0.01	64.3

Architectural Coatings	4.14	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	10.6
Architectural Coatings	0.76	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.65	0.00	0.00	0.14	0.14	0.00	0.03	0.03	147
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.55	0.00	0.00	0.14	0.14	0.00	0.03	0.03	139
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	50.7
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.40
Vendor	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

3.14. Architectural Coating (2027) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	179
Architectural Coatings	11.5	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	179
Architectural Coatings	11.5	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.40	0.54	< 0.005	0.01	—	0.01	0.01	—	0.01	64.3
Architectural Coatings	4.14	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	10.6
Architectural Coatings	0.76	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.65	0.00	0.00	0.14	0.14	0.00	0.03	0.03	147

Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.55	0.00	0.00	0.14	0.14	0.00	0.03	0.03	139
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	50.7
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.40
Vendor	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

3.15. Architectural Coating (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.08	1.49	< 0.005	0.02	—	0.02	0.02	—	0.02	179
Architectural Coatings	11.5	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.45
Architectural Coatings	0.16	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.41
Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.52	0.00	0.00	0.14	0.14	0.00	0.03	0.03	136
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.90
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.31
Vendor	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

3.16. Architectural Coating (2028) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.08	1.49	< 0.005	0.02	—	0.02	0.02	—	0.02	179
Architectural Coatings	11.5	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.45
Architectural Coatings	0.16	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.41
Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—
Onsite truck	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)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.52	0.00	0.00	0.14	0.14	0.00	0.03	0.03	136
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.90
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.31
Vendor	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

3.17. Trenching (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	3.78	5.17	0.01	0.12	—	0.12	0.11	—	0.11	744
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.60
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.52	0.71	< 0.005	0.02	—	0.02	0.02	—	0.02	102
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.63
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.9
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Worker	0.03	0.03	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	103
Vendor	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	0.63	0.22	< 0.005	0.01	0.16	0.16	0.01	0.04	0.05	593
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	13.6
Vendor	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	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	81.1
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.25
Vendor	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	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.4

3.18. Trenching (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	3.78	5.17	0.01	0.12	—	0.12	0.11	—	0.11	744
Onsite truck	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.60
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.52	0.71	< 0.005	0.02	—	0.02	0.02	—	0.02	102
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.63
Annual	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.09	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.9
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	103
Vendor	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	0.63	0.22	< 0.005	0.01	0.16	0.16	0.01	0.04	0.05	593
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	13.6
Vendor	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	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	81.1
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.25
Vendor	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	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.4

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Medical Office Building	8.47	6.58	80.0	0.20	0.12	19.6	19.7	0.11	4.98	5.09	21,222
Research & Development	2.81	2.18	26.5	0.07	0.04	6.50	6.54	0.04	1.65	1.69	7,038
Total	11.3	8.76	106	0.27	0.16	26.1	26.3	0.15	6.63	6.78	28,260
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	8.38	7.20	73.0	0.20	0.12	19.6	19.7	0.11	4.98	5.09	20,308
Research & Development	2.78	2.39	24.2	0.06	0.04	6.50	6.54	0.04	1.65	1.69	6,734
Total	11.2	9.58	97.2	0.26	0.16	26.1	26.3	0.15	6.63	6.78	27,042
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	1.52	1.33	13.7	0.04	0.02	3.54	3.56	0.02	0.90	0.92	3,405
Research & Development	0.50	0.44	4.54	0.01	0.01	1.17	1.18	0.01	0.30	0.30	1,129
Total	2.02	1.77	18.2	0.05	0.03	4.71	4.74	0.03	1.20	1.22	4,534

4.1.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	8.47	6.58	80.0	0.20	0.12	19.6	19.7	0.11	4.98	5.09	21,222
Research & Development	2.81	2.18	26.5	0.07	0.04	6.50	6.54	0.04	1.65	1.69	7,038
Total	11.3	8.76	106	0.27	0.16	26.1	26.3	0.15	6.63	6.78	28,260
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	8.38	7.20	73.0	0.20	0.12	19.6	19.7	0.11	4.98	5.09	20,308

Research & Development	2.78	2.39	24.2	0.06	0.04	6.50	6.54	0.04	1.65	1.69	6,734
Total	11.2	9.58	97.2	0.26	0.16	26.1	26.3	0.15	6.63	6.78	27,042
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	1.52	1.33	13.7	0.04	0.02	3.54	3.56	0.02	0.90	0.92	3,405
Research & Development	0.50	0.44	4.54	0.01	0.01	1.17	1.18	0.01	0.30	0.30	1,129
Total	2.02	1.77	18.2	0.05	0.03	4.71	4.74	0.03	1.20	1.22	4,534

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.00

Research & Development	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Research & Development	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Research & Development	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Research & Development	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Research & Development	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Medical Office Building	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Research & Development	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Research & Development	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.64	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.21	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Total	5.28	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.64	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	—	—	—	—	—	—	—	—	—	—

Total	4.07	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.66	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.08	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46
Total	0.89	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46

4.3.2. Mitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.64	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.21	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Total	5.28	0.06	7.39	< 0.005	0.01	—	0.01	0.01	—	0.01	30.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.64	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	—	—	—	—	—	—	—	—	—	—
Total	4.07	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.66	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.08	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46
Total	0.89	0.01	0.92	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.46

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	73.5
Research & Development	—	—	—	—	—	—	—	—	—	—	399
Total	—	—	—	—	—	—	—	—	—	—	472
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	73.5
Research & Development	—	—	—	—	—	—	—	—	—	—	399
Total	—	—	—	—	—	—	—	—	—	—	472
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	12.2
Research & Development	—	—	—	—	—	—	—	—	—	—	66.0
Total	—	—	—	—	—	—	—	—	—	—	78.2

4.4.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	58.8
Research & Development	—	—	—	—	—	—	—	—	—	—	319
Total	—	—	—	—	—	—	—	—	—	—	378
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	58.8
Research & Development	—	—	—	—	—	—	—	—	—	—	319
Total	—	—	—	—	—	—	—	—	—	—	378
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	9.74
Research & Development	—	—	—	—	—	—	—	—	—	—	52.8
Total	—	—	—	—	—	—	—	—	—	—	62.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Medical Office Building	—	—	—	—	—	—	—	—	—	—	1,452
Research & Development	—	—	—	—	—	—	—	—	—	—	14.1
Total	—	—	—	—	—	—	—	—	—	—	1,466
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	1,452
Research & Development	—	—	—	—	—	—	—	—	—	—	14.1
Total	—	—	—	—	—	—	—	—	—	—	1,466
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	240
Research & Development	—	—	—	—	—	—	—	—	—	—	2.34
Total	—	—	—	—	—	—	—	—	—	—	243

4.5.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	508
Research & Development	—	—	—	—	—	—	—	—	—	—	4.95
Total	—	—	—	—	—	—	—	—	—	—	513
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	508

Research & Development	—	—	—	—	—	—	—	—	—	—	4.95
Total	—	—	—	—	—	—	—	—	—	—	513
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	84.1
Research & Development	—	—	—	—	—	—	—	—	—	—	0.82
Total	—	—	—	—	—	—	—	—	—	—	85.0

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	1.82
Research & Development	—	—	—	—	—	—	—	—	—	—	2.52
Total	—	—	—	—	—	—	—	—	—	—	4.34
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	1.82
Research & Development	—	—	—	—	—	—	—	—	—	—	2.52
Total	—	—	—	—	—	—	—	—	—	—	4.34
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.30

Research & Development	—	—	—	—	—	—	—	—	—	—	0.42
Total	—	—	—	—	—	—	—	—	—	—	0.72

4.6.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	1.82
Research & Development	—	—	—	—	—	—	—	—	—	—	2.52
Total	—	—	—	—	—	—	—	—	—	—	4.34
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	1.82
Research & Development	—	—	—	—	—	—	—	—	—	—	2.52
Total	—	—	—	—	—	—	—	—	—	—	4.34
Annual	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	0.30
Research & Development	—	—	—	—	—	—	—	—	—	—	0.42
Total	—	—	—	—	—	—	—	—	—	—	0.72

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Annual	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.50	2.24	1.28	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	233
Total	0.50	2.24	1.28	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	233

4.8.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Total	1.25	5.59	3.19	0.01	0.02	0.00	0.02	0.02	0.00	0.02	642
Annual	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.50	2.24	1.28	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	233

Total	0.50	2.24	1.28	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	233

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

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

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
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	3/9/2026	6/19/2026	5.00	75.0	—
Grading	Grading	6/22/2026	7/17/2026	5.00	20.0	—

Building Construction	Building Construction	6/22/2026	1/7/2028	5.00	405	—
Paving	Paving	12/1/2027	12/30/2027	5.00	22.0	—
Architectural Coating	Architectural Coating	7/1/2027	1/7/2028	5.00	137	—
Trenching	Trenching	7/20/2026	9/25/2026	5.00	50.0	—

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	Air Compressors	Diesel	Average	4.00	8.00	37.0	0.48
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	8.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Aerial Lifts	Diesel	Average	1.00	8.00	46.0	0.31
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Trenching	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50

5.2.2. Mitigated

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	Air Compressors	Diesel	Average	4.00	8.00	37.0	0.48
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	8.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Aerial Lifts	Diesel	Average	1.00	8.00	46.0	0.31
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Trenching	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
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	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	16.0	42.0	HHDT
Demolition	Onsite truck	8.00	0.15	HHDT
Grading	—	—	—	—
Grading	Worker	0.00	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	6.00	42.0	HHDT
Grading	Onsite truck	3.00	0.15	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	54.4	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	24.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	12.0	0.15	HHDT,MHDT
Paving	—	—	—	—
Paving	Worker	10.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	16.0	10.2	HHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	8.00	0.15	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	10.9	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	7.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	0.00	10.2	HHDT,MHDT
Trenching	Hauling	4.00	42.0	HHDT

Trenching	Onsite truck	2.00	0.15	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	16.0	42.0	HHDT
Demolition	Onsite truck	8.00	0.15	HHDT
Grading	—	—	—	—
Grading	Worker	0.00	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	6.00	42.0	HHDT
Grading	Onsite truck	3.00	0.15	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	54.4	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	24.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	12.0	0.15	HHDT,MHDT
Paving	—	—	—	—
Paving	Worker	10.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	16.0	10.2	HHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	8.00	0.15	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	10.9	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	7.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	0.00	10.2	HHDT,MHDT
Trenching	Hauling	4.00	42.0	HHDT
Trenching	Onsite truck	2.00	0.15	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	0.00	0.00	255,000	85,000	—

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 (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	175,000	—
Grading	—	95.0	1.00	0.00	—
Paving	0.00	0.00	0.00	0.00	1.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Medical Office Building	1.00	100%
Research & Development	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	428	0.05	0.01
2027	0.00	407	0.05	0.01
2028	0.00	386	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
Medical Office Building	2,693	2,693	2,693	982,945	27,638	27,638	27,638	10,087,714
Research & Development	893	893	893	325,959	9,165	9,165	9,165	3,345,230

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Medical Office Building	2,693	2,693	2,693	982,945	27,638	27,638	27,638	10,087,714

Research & Development	893	893	893	325,959	9,165	9,165	9,165	3,345,230

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

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	255,000	85,000	—

5.10.3. Landscape Equipment

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

5.10.4. Landscape Equipment - Mitigated

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	4,141,686	0.00	0.0000	0.0000	0.00
Research & Development	1,572,168	0.00	0.0000	0.0000	0.00

5.11.2. Mitigated

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	4,141,686	0.00	0.0000	0.0000	0.00
Research & Development	1,572,168	0.00	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Medical Office Building	8,946,762	28,049
Research & Development	48,530,193	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Medical Office Building	7,157,410	22,439
Research & Development	38,824,154	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Medical Office Building	770	—

Research & Development	7.50	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Medical Office Building	270	—
Research & Development	2.63	—

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
Research & Development	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.14.2. Mitigated

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

Research & Development	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

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

5.15.2. Mitigated

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
Emergency Generator	Diesel	4.00	0.25	200	762	0.73

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

5.18.1.2. Mitigated

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

5.18.1.2. Mitigated

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)

5.18.2.2. Mitigated

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	5.38	annual days of extreme heat
Extreme Precipitation	4.70	annual days with precipitation above 20 mm
Sea Level Rise	—	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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 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	29.9
AQ-PM	77.1

AQ-DPM	97.5
Drinking Water	25.5
Lead Risk Housing	72.1
Pesticides	7.72
Toxic Releases	95.3
Traffic	86.5
Effect Indicators	—
CleanUp Sites	85.0
Groundwater	83.4
Haz Waste Facilities/Generators	94.7
Impaired Water Bodies	0.00
Solid Waste	64.7
Sensitive Population	—
Asthma	64.6
Cardio-vascular	65.6
Low Birth Weights	77.4
Socioeconomic Factor Indicators	—
Education	62.0
Housing	73.7
Linguistic	43.3
Poverty	46.0
Unemployment	22.6

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	30.15526755

Employed	41.16514821
Median HI	46.81124086
Education	—
Bachelor's or higher	52.44450148
High school enrollment	18.81175414
Preschool enrollment	25.06095214
Transportation	—
Auto Access	66.18760426
Active commuting	44.7324522
Social	—
2-parent households	73.32221224
Voting	52.40600539
Neighborhood	—
Alcohol availability	35.55755165
Park access	81.35506224
Retail density	91.03041191
Supermarket access	20.91620685
Tree canopy	48.9285256
Housing	—
Homeownership	33.7482356
Housing habitability	52.98344668
Low-inc homeowner severe housing cost burden	32.41370461
Low-inc renter severe housing cost burden	79.37892981
Uncrowded housing	39.26600796
Health Outcomes	—
Insured adults	16.16835622
Arthritis	90.1
Asthma ER Admissions	40.2

High Blood Pressure	79.0
Cancer (excluding skin)	85.3
Asthma	58.2
Coronary Heart Disease	83.6
Chronic Obstructive Pulmonary Disease	84.0
Diagnosed Diabetes	48.6
Life Expectancy at Birth	59.1
Cognitively Disabled	84.2
Physically Disabled	39.7
Heart Attack ER Admissions	55.3
Mental Health Not Good	44.5
Chronic Kidney Disease	64.9
Obesity	31.1
Pedestrian Injuries	74.9
Physical Health Not Good	48.3
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	26.9
Current Smoker	50.3
No Leisure Time for Physical Activity	50.2
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	59.5
Elderly	75.9
English Speaking	62.0
Foreign-born	58.3
Outdoor Workers	66.7

Climate Change Adaptive Capacity	—
Impervious Surface Cover	15.1
Traffic Density	90.8
Traffic Access	53.1
Other Indices	—
Hardship	60.4
Other Decision Support	—
2016 Voting	44.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	85.0
Healthy Places Index Score for Project Location (b)	39.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
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

Characteristics: Utility Information	100% Green Power
Characteristics: Project Details	EDFZ 16 = Coastal
Operations: Vehicle Data	See Operational Assumptions
Operations: Energy Use	Adjustment for boilers. All-Electric Option. All boiler electricity consumption assigned to medical office building
Operations: Generators + Pumps EF	SCAQMD Rule 1470 PM10 emission factor for >750 hp generator, within 50 meters of sensitive use
Construction: Construction Phases	See Construction Assumptions
Construction: Off-Road Equipment	See construction assumptions
Construction: Trips and VMT	See construction assumptions
Construction: On-Road Fugitive Dust	Onsite truck travel is paved
Construction: Paving	Approximately 1 acre of disturbance.
Construction: Dust From Material Movement	Approximately 1 acre disturbed (conservative estimate)
Construction: Electricity	SCE Year 2028 RPS
Operations: Emergency Generators and Fire Pumps	Max of one generator tested per day for 1-hr (0.25 hr x 4 generators)