

AIR QUALITY AND GREENHOUSE GAS EMISSIONS TECHNICAL REPORT

**UCLA Research Park Project
Los Angeles, CA**

April 2026

***Prepared by:*
Eyestone Environmental, LLC**

TABLE OF CONTENTS

	Page
I. INTRODUCTION.....	1
II. PROJECT LOCATION AND EXISTING USES	1
III. PROJECT DESCRIPTION.....	2
IV. SCOPE OF WORK	5
V. ENVIRONMENTAL IMPACT ANALYSIS	6
A. Regulatory Framework.....	6
B. Air Quality Methodology	10
C. GHG Methodology	17
D. Project Design Features	26
E. Air Quality Impacts	27
F. Greenhouse Gas Impacts.....	45

APPENDICES

Appendix AQ-1	Air Quality and Greenhouse Gas Regulatory Framework
Appendix AQ-2	Air Quality Methodology
Appendix AQ-3	Air Quality and Greenhouse Gas Worksheets

LIST OF TABLES

Table		Page
Table 1	Regional Project Construction Emissions (pounds per day)	30
Table 2	Localized Project Construction Emissions (pounds per day)	31
Table 3	Project Regional Operational Emissions—Project Buildout (2030) (pounds per day).....	32
Table 4	Project Localized Operational Emissions—Project Buildout (2030) (pounds per day).....	34
Table 5	Combined Construction-Related Emissions (MTCO _{2e})	47
Table 6	Annual GHG Emissions Summary—Net Change (Year 2030) (metric tons of carbon dioxide equivalent [MTCO _{2e}])	48

AIR QUALITY AND GREENHOUSE GAS TECHNICAL REPORT FOR THE UCLA RESEARCH PARK PROJECT

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 Research Park Project (the Project), a proposed state-of-the-art, multidisciplinary research and innovation hub. Through the adaptive reuse of an existing developed site in proximity to UCLA's Westwood campus, UCLA Research Park would bring scholars, research institutions, industry partners, government agencies, and startup companies together to collaboratively conduct scientific research and advance scientific knowledge, as described further below.

II. Project Location and Existing Uses

The Project Site is located on an approximately 9.3-acre site and encompasses Research Park East located at 10800 W. Pico Boulevard and Research Park West located at 10850 W. Pico Boulevard in the City of Los Angeles (City). The Project site is approximately two miles south of the UCLA main campus in Westwood and less than one mile from the interchange of the I-405 and I-10 freeways.

The Project Site, which is developed with two buildings, parking, and infrastructure associated with the Westwood Pavilion shopping center that operated on the site for more than 35 years, was acquired by UCLA in late 2023. At that time, the eastern building was midway through conversion into high-tech office space, along with related common areas, food service, and other amenities. Research Park East and West are connected by an existing enclosed pedestrian bridge across Westwood Boulevard.

The area surrounding the Project Site is developed with dense, primarily residential and commercial uses.

III. Project Description

The Project involves the continued transformation of the existing buildings to create UCLA Research Park, which will consist of research and scientific uses. More specifically, the Project involves adaptive reuse of the approximately 744,400 gross square feet (GSF) of existing occupiable floor area within Research Park East and West via interior improvements and limited new construction to provide over 800,000 GSF of scientific program space, plus approximately 29,000 square feet (SF) of open space and outdoor amenity areas and approximately 1,100 parking spaces on-site, for a total of approximately 1.35 million GSF of research park uses.¹ The proposed uses will include wet and dry laboratories; office space; meeting and assembly spaces, including instructional spaces; ancillary food service; common and circulation areas, including amenities; existing subterranean parking; and outdoor open space. The program space in UCLA Research Park will include open, collaborative areas for research and creative activities; leased startup company incubator spaces; makerspace and shared equipment rooms; shared office space for bench researchers; private office space for project leaders; conference rooms; spaces leased to outside entities such as established companies, government laboratories, and outside institutions; and auditoriums and gathering spaces to support seminars, performances, and small conferences. Anchor tenants will include the California Institute for Immunology and Immunotherapy (CIII) and the UCLA Quantum Innovation Hub (QIH), with space allocated to the UCLA David Geffen School of Medicine (DGSOM) and future UCLA tenants and non-UCLA partners.

Construction would occur in phases beginning in 2026, with the Research Park East core and shell improvements and Phase 1 tenant improvements anticipated to be complete in late 2027. Subsequent phases would involve additional tenant improvements in Research Park East, associated support functions such as the central loading dock and rooftop mechanical areas, construction of the new conference center, and a full seismic retrofit and tenant improvements at Research Park West. Earthwork would be limited to areas south of the existing buildings to prepare limited portions of the site for new construction and to modify on-site circulation and landscaping. The maximum depth of excavation/trenching would be approximately 10 feet for most Project components, and a depth of approximately 3.75 feet below the finished floor of parking Level P5 for seismic retrofits at Research Park West. Soil export for all construction phases would total an estimated 8,645 cubic yards (cy) and would generate an estimated 1,176 cubic yards (cy) of demolition material. Full buildout is anticipated by 2035.

¹ Total square footage of 1.35 million GSF includes approximately 489,200 GSF of existing multi-level subterranean parking.

Although buildout of the Project would be phased over a nearly 10-year timeframe, for purposes of analysis in this report, construction is conservatively assumed to occur in a single phase beginning in Summer 2026 and concluding in Summer 2030. This 4-year timeframe assumes a more rapid and intense construction period than is currently expected to occur. Based on this approach, the actual construction-related impacts occurring over time would generally be less than those predicted herein.

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 Gold rating pursuant to the Leadership in Energy and Environmental Design (LEEDTM)² for Building Design and Construction (BD+C) has been established for the Project, which qualifies as a major renovation of an existing building pursuant to the UC Policy on Sustainable Practices. To achieve the required LEED Gold 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 the Buy Clean California Act, and compliance with the University's environmental standards for programming and design. More specifically, the 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 the existing structures, repositioning from a retail mall/partial office conversion to scientific research, within an area adjacent to existing amenities, public transportation facilities, and existing urban infrastructure;
- Outperformance of CBC Title 24 energy efficiency requirements by at least 20 percent;
- All-electric buildings where all new mechanical systems including boilers and autoclaves would be electric powered, and the existing gas service would be capped;
- Commitment to the use 100 percent green (renewable) electricity through LADWP's Green Power for a Green L.A.TM Program;
- Installation of an on-site photovoltaic (PV) solar array (18,100 SF) with battery storage providing approximately 1,515,000 kilowatt-hours per year (kWh/yr);

² *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.*

- Installation of highly efficient HVAC systems;
- Installation of wind response exhaust systems (i.e., exhaust design accounts for local wind patterns) and sound attenuation for equipment;
- Incorporation of construction materials that have a lower embodied carbon in line with the California Green Building Standards Code (CALGreen) embodied carbon requirements and 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;
- Incorporation of environmentally preferred and healthy materials that have environmental product declarations, recycled content, and health product declarations to earn specific LEED credits;
- Support zero-emissions vehicle (ZEV) commuting by providing at least 111 EV-ready spaces and at least 112 EV charging stations throughout the site;
- Installation of an approximately 14,500-gallon tank at Research Park East and an approximately 75,000-gallon tank at Research Park West that would be used to store stormwater, and use of the existing approximately 131,600-gallon holding tank at Research Park East, all of which would be used for on-site irrigation.
- Use of native and drought-tolerant plant species to reduce landscape irrigation demands and installation of a high-efficiency irrigation system;
- Selection of energy- and water-efficient equipment and fixtures;
- Provision of substantial open space with landscaping for cooling (natural shading), wellness, and comfort;
- Use of 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;
- Diversion of a minimum of 65 percent of construction waste from landfills to reduce solid waste disposal; and
- Strive to achieve diversion of 90 percent of operational waste from landfills to support the zero waste goals established by UCLA and the UC Policy on Sustainable Practices.

More specifically with respect to sustainable transportation, the following would be implemented to provide convenient access for Project employees, visitors, and other Project stakeholders and to encourage the use of alternative modes of transportation:

- **Pedestrian Access Improvements.** Given the roadway connectivity in the Project area, the walking distance between the Metro E-Line Westwood/Rancho Park Station and the Project Site using public rights-of-way is approximately 0.5 mile. A new mid-block pedestrian crossing across Westwood boulevard is proposed at the existing signal at the site driveways to support safety and connectivity between Research Park East and West. This access would provide a more direct pedestrian path.
- **Subsidized Transit Passes.** Many employees would be eligible for UCLA Transportation's Bruin Commuter Transit Benefit program, which currently 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.
- **Bicycle Parking.** To encourage bicycle travel, an estimated 21 short-term and 136 long-term bike parking spaces, plus 14 showers with locker facilities would be provided on-site.

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 SCAQMD's current 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 Strategy³
- University of California (UC) Policy on Sustainable Practices

³ Both the 2020–2045 and 2024–2050 versions are addressed herein. It is noted that as a constitutionally created entity, the University of California 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.

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 that are relevant to the potential air quality and greenhouse gas (GHG) emissions associated with the Project. As a standard practice, relevant LRDP PPs and MMs are implemented for all UCLA development projects, including those located off-campus.

Accordingly, 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 from the LRDP MMRP are signified by ~~strikeout~~ where non-applicable text has been removed; and by **bold and underline** where text has been added. Clarifying changes have been made so the stated requirement reflects that the Project 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 to LRDP PP 4.15-1 above, 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.

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 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 (PM₁₀) 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 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.

⁴ SCAQMD, *Air Quality Analysis Handbook*, www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook, accessed April 27, 2026.

CalEEMod is based on outputs from the Off-road Emissions Inventory Program model⁵ (OFFROAD) and Emission FACTor model⁶ (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 daily construction emissions resulting from on-site improvements, including interior work and limited new construction, as well as minor off-site improvements (specifically, the proposed crosswalk across Westwood Boulevard) 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, PM₁₀, and PM_{2.5}.⁸ SCAQMD does not provide a LST for SO₂, Lead (Pb), or Hydrogen Sulfide (H₂S) since land use development projects typically result in negligible construction and long-term operation emissions of these pollutants. Since VOCs are not a criteria pollutant, there is no ambient standard or SCAQMD

⁵ CARB, 2021 Off-road Diesel Emission Factors, <https://arb.ca.gov/emfac/offroad/>, accessed April 27, 2026.

⁶ CARB, EMFAC 2021, <https://arb.ca.gov/emfac/>, accessed April 27, 2026.

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.

LST for VOCs. Due to the role VOCs play in Ozone (O₃) 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. As discussed in more detail below, the Project site encompasses approximately 9.3 acres. However, construction would primarily occur within the existing building interiors, and exterior construction activity (e.g., soil disturbance) would be limited to an area totaling 3.2 acres in the southern portion of the Project Site. Accordingly, the active work area outdoors, which is used for purposes of analyzing potential air quality impacts, would be less than 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) stationery. 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); however, the Project would not involve the use of natural gas for operations. Mobile source emissions are generated by motor vehicle trips to and from the Project Site associated with operation of the Project; however, the proposed Project would result in an overall reduction in vehicle trips compared to operation of the shopping center on the Project Site during its 35-year operational history. 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.^{9,10,11} Area source emissions are based on landscaping equipment and consumer product usage (including paints) rates provided in CalEEMod.¹² 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. The Project would also include a new loading dock which will increase the number of loading bays at the existing buildings. Truck trip generation was provided by the Dock Feasibility Study prepared by St. Onge Company.¹³ Truck trip emissions on the Project site were calculated using EMFAC2021 emission factors.

To determine if a significant air quality impact would occur, the net change in regional operational emissions generated by the Project was compared against SCAQMD's significance thresholds.¹⁴ To be conservative, this analysis evaluates the Project's air quality impacts during operations based on reasonably expected maximum operational emissions

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

¹⁰ In March 2026, EMFAC2025 Version 2.1.0 was released to account for disapproval of California waivers including Advanced Clean Cars II, Advanced Clean Trucks (ACT), and the Heavy-Duty Omnibus. However, CalEEMod has not yet been updated to account for EMFAC2025. Source: California Air Resources Board, EMFAC2025. Source: <https://arb.ca.gov/emfac/>.

¹¹ While EMFAC2025 has not yet been incorporated into CalEEMod, pollutant emissions are estimated to increase ROG by 30 percent and CO by 125 percent, but decrease NOx by five percent and reduce PM10 and PM2.5 by less than five percent. Please refer to Appendix AQ-3 for calculation of the comparison of EMFAC2025 vs. EMFAC2021. Project criteria pollutant and GHG emissions presented below would remain below significance thresholds even with the EMFAC2025 correction factors applied.

¹² CalEEMod landscape equipment emission rates are developed using CARB's Small Off-Road Engines (SORE) Model which assumes equipment would be combustion powered (gasoline, propane, diesel). Although the Project would use electric powered landscaping equipment, it was conservatively assumed that landscape equipment would be combustion powered.

¹³ St. Onge Company. *UCLA Research Park East Dock Feasibility Study*.

¹⁴ 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.).

even though such emissions would not occur throughout the entire operational phase (i.e., peak day operational activities and emissions are conservatively assumed to occur every day). Refer to Appendix AQ-2 for additional information regarding the methodology.

(b) Localized Emissions

(i) On-Site Emissions

Localized impacts from Project operations include the calculation of on-site emissions (e.g., landscaping emissions) 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.¹⁵

It has been recognized that CO exceedances are caused by vehicular emissions,¹⁶ primarily when idling at intersections.^{17,18} 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.¹⁹ 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,^{20,21} and cold weather CO standards have been implemented, effective for the 1996 model year.²² Currently, the CO standard in California is a maximum of 3.4 grams/mile for passenger cars

¹⁵ SCAQMD, *2003 Air Quality Management Plan, Final 2003 AQMP Appendix V Modeling and Attainment Demonstrations*, August 2003

¹⁶ USEPA, *Air Quality Criteria for Carbon Monoxide*, EPA 600/P-099/001F, 2000.

¹⁷ SCAQMD, *CEQA Air Quality Handbook*, Section 4.5, 1993.

¹⁸ SCAQMD, *Air Quality Management Plan*, 2003.

¹⁹ 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 April 27, 2026.

²⁰ 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].

²¹ Kavanagh, Jason, *Untangling U.S. Vehicle Emissions Regulations*, 2008.

²² Title 13, *California Code of Regulations*, Section 1960.1(f)(2) [for 50,000 mile half-life].

(with provisions for certain cars to emit even less).²³ 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).²⁴ 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 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.²⁵ 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

²³ 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.

²⁴ SCAQMD, *Federal Attainment Plan for Carbon Monoxide*, 1992.

²⁵ Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

facilities).²⁶ SCAQMD adopted similar recommendations in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*.²⁷ 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.²⁸ 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 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

²⁶ CARB, *Air Quality and Land Use Handbook, a Community Health Perspective*, April 2005.

²⁷ SCAQMD, *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, May 6, 2005.

²⁸ SCAQMD, *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, May 6, 2005, pp 2-3.

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)).²⁹

(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.³⁰ Accordingly, UCLA in its capacity as Lead Agency has the discretion to select significance thresholds established or recommended by other public agencies or experts.

In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold of 10,000 MTCO₂e per year for stationary source/industrial projects where SCAQMD is the lead agency. The SCAQMD Board has not approved the thresholds; however, the Guidance Document provides substantial evidence supporting the approaches to determine the significance of GHG emissions that can be considered by the lead agency in adopting its own threshold. At Tier 1, GHG emissions impacts would be less than significant if the project qualifies under a categorical or statutory CEQA exemption. At Tier 2, for projects that do not meet the Tier 1 criteria, the GHG emissions impact would be less than significant if the project is consistent with a previously adopted GHG reduction plan that meets specific requirements. At Tier 3, the following Tier 3 screening values are identified: either (1) a single 3,000 MTCO₂e/yr threshold for all residential and commercial uses; or (2) separate thresholds of 3,500 MTCO₂e/yr for residential projects, 1,400 MTCO₂e/yr for commercial projects, and 3,000 MTCO₂e/yr for small and mixed-use projects.

For the Project, the SCAQMD's recommended annual non-industrial screening threshold of 3,000 metric tons of carbon dioxide equivalent (MTCO₂e) for small and mixed-use projects is used as the significance threshold, in addition to qualitative thresholds of significance as set forth in the CEQA Guidelines, discussed above.

²⁹ 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.

³⁰ An updated CAP is currently under development by UCLA but likewise is not anticipated to be CEQA-qualified.

A screening threshold of 3,000 MTCO₂e per year to determine if additional analysis is required is an acceptable approach for relatively small projects as well as mixed-use, non-industrial projects. This approach is a widely accepted screening threshold used by UCLA and other state and local agencies and is based on the SCAQMD staff's proposed GHG screening threshold for stationary source emissions for non-industrial projects, as described in the SCAQMD's Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans (SCAQMD Interim GHG Threshold).³¹ The SCAQMD Interim GHG Threshold identifies a screening threshold to determine whether additional analysis is required. As noted by the SCAQMD:

... the ... screening level for stationary sources is based on an emission capture rate of 90% for all new or modified projects...the policy objective of [SCAQMD's] recommended interim GHG significance threshold proposal is to achieve an emission capture rate of 90% of all new or modified stationary source projects. A GHG significance threshold based on a 90% emission capture rate may be more appropriate to address the long-term adverse impacts associated with global climate change because most projects will be required to implement GHG reduction measures. Further, a 90% emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This assertion is based on the fact that [SCAQMD] staff estimates that these GHG emissions would account for slightly less than 1% of future 2050 statewide GHG emissions target (85 [MMTCO₂e/yr]). In addition, these small projects may be subject to future applicable GHG control regulations that would further reduce their overall future contribution to the statewide GHG inventory. Finally, these small sources are already subject to [Best Available Control Technology] (BACT) for criteria pollutants and are more likely to be single-permit facilities, so they are more likely to have few opportunities readily available to reduce GHG emissions from other parts of their facility.

Thus, based on guidance from the SCAQMD, if a non-industrial project would emit GHGs less than 3,000 MTCO₂e/yr, the project is not considered a substantial GHG emitter and the GHG impact is considered less than significant, requiring no additional analysis and no mitigation. On the other hand, if a non-industrial project would emit GHGs in excess of

³¹ SCAQMD, *Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008, Attachment E.

3,000 MTCO₂e/yr, then the project could be considered a substantial GHG emitter, requiring additional analysis and potential mitigation. As previously discussed, a screening threshold of 3,000 MTCO₂e/yr is an acceptable approach for small projects to determine if additional analysis is required and is therefore applied for this Project.

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 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 electricity from 100% renewable sources. Project emissions are then compared to the SCAQMD's 3,000 MTCO₂e 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.³² 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."³³ 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

³² California Climate Action Registry, *General Reporting Protocol Version 3.1*, January 2009.

³³ California Climate Action Registry, *General Reporting Protocol Version 3.1*, January 2009.

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.³⁴ They include the following:

- 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).³⁵

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 or proposed uses 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.³⁶ For example, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, The California Governor's Office of Land Use and Climate Innovation (LCI; formerly the Office of Planning and Research), 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

³⁴ USEPA, *Greenhouse Gases at EPA*, www.epa.gov/greeningepa/greenhouse-gases-epa, accessed April 27, 2026.

³⁵ *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.*

³⁶ 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.

usage and construction activities.”³⁷ 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 emissions is particularly conservative in that it assumes that the Project’s net change in GHG emissions are new additions to the atmosphere.

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.³⁸ 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

³⁷ OPR Technical Advisory, *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review*, June 2008, p. 5.

³⁸ SCAQMD, *CEQA Air Quality Modeling*, www.aqmd.gov/home/rules-compliance/ceqa/air-quality-modeling, accessed April 27, 2026.

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.³⁹ Thus, total construction GHG emissions were 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 the operation of the shopping center uses that operated in the existing buildings, and the proposed land uses, including area sources, electricity, 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 Global Warming Potential (GWP) values were used in the evaluation of operational GHG emissions from the Project.

Area source emissions include landscaping and architectural coating activities, where the emissions are based on the size of the land uses (e.g., square footage), 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 LADWP service area. As discussed in more detail below, as required by the UC Policy on Sustainable Practices, UCLA would purchase 100% renewable electricity from LADWP during operations. The carbon intensity (lbs/MWh) for electricity generation was set to zero (0 lbs. CO₂ per MWh) for the Project buildout year (2030 for purposes of this analysis) and calculated for the existing baseline based on LADWP projections for year 2025 (445 lbs. CO₂ per MWh). LADWP's carbon intensity projections also take into account SB 100 and

³⁹ SCAQMD, *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*, 2008.

SB 350 RPS requirements for renewable energy. As previously discussed, although the Project is expected to be built out by Year 2035 over several phases, it was conservatively assumed that the Project could be constructed in a single phase with buildout as early as 2030.

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. However, as the Project would consist of all-electric design, sources typically associated with natural gas consumption such as boilers and HVAC were assumed to be powered by electricity. CalEEMod modeling for the Project also takes into account relevant requirements set forth in the University of California (UC) Policy on Sustainable Practices, including the installation of photovoltaic panels, exceedance of Title 24 standards by 20 percent, and specified LEED ratings for projects such as UCLA Research Park.

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.⁴⁰

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. Solid waste disposal rates are based on CalEEMod defaults, while diversion rates are based on City of LA historic diversion rates.⁴¹

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

⁴⁰ Fehr and Peers, Inc., *UCLA Research Park Vehicle Miles Travelled Screening Assessment*, Los Angeles, California, April 2026.

⁴¹ City of Los Angeles, Department of Public Works, *LA Sanitation, Recycling*. https://sanitation.lacity.gov/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-r?_adf.ctrl-state=ef1vp9s02_5&_afLoop=4576967379349047#!, accessed April 27, 2026.

of electricity needed to transport and treat water. Water usage factors were obtained from surveys conducted throughout California for various land uses. Water/wastewater emissions are calculated based on CalEEMod default water consumption rates. Project water consumption GHG emissions were then quantified based on electricity usage and carbon intensity factors specific to the electricity provider.

The GHG emissions calculations for the Project include credits or reductions for implementation of quantifiable 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).⁴² 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. Accordingly, and as a conservative assumption, GHG emissions reductions resulting from the LCFS updates were not included in the Project's emissions inventory. In addition, since mobile source GHG emissions are directly dependent on the number of vehicle trips, a reduction in the number of Project-generated trips resulting from certain Project site features such as close proximity to transit would provide a proportional reduction in mobile source GHG emissions compared to a hypothetical project without such locational benefits; these types of reductions are reflected in the trip generation calculations, as applicable. 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, including emissions reductions regarding the Cap-and-Trade Program.

(3) Consistency with GHG Reduction Plans and Regulations

The Project's GHG impacts also were evaluated by assessing the Project's consistency with applicable UC, 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 the Southern California Association of Governments (SCAG's) 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). It is noted that as a state entity, the UC is not subject to

⁴² *Actions and mandates are based on relevant year targets established by AB 32 and the current CARB Scoping Plan.*

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 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 this report for a comprehensive list of sustainability features incorporated into the Project. Conservatively, the only sustainability features for which emission reductions have been quantified in CalEEMod include: the purchase of 100% renewable energy, all-electric design, and a PV array.

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 [O₃]). 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 RTP/SCS which provides population, housing, and employment projections for cities under its jurisdiction.⁴³ The growth projections in the 2020–2045 RTP/SCS are based in part on projections originating under County and City General 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

⁴³ 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 evaluation of Project consistency with the 2022 AQMP.

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.⁴⁴

As described in detail above, the Project involves the adaptive reuse and renovation of the existing buildings, plus limited exterior improvements, on the Project Site. The proposed uses include wet and dry laboratories, office space, meeting and assembly spaces, food service, common and circulation areas, existing subterranean parking, and outdoor open space. The Project would increase the employee population within the area. Based on employment generation rates published by the Los Angeles Unified School District (LAUSD) and SCAG it is estimated that the proposed Project would generate a net increase in employees (compared to operation of the shopping center uses within the existing buildings) ranging from approximately 1,690 employees to 2,340 employees.⁴⁵ The net increase in employees at the Project site would represent approximately 0.5 percent to 0.7 percent of the employment increase projected for the Los Angeles County in the 2020–2045 RTP/SCS for the period between 2020 and 2035.⁴⁶ 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.

As shown in Table 1 through Table 4 on pages 30 through 34, 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

⁴⁴ SCAQMD, *CEQA Air Quality Handbook*, Section 12.1, 1993.

⁴⁵ Based on employment generation factors presented in the LAUSD Developer Fee Justification Study (March 2018), it is estimated the operation of the existing buildings on-site with the shopping center uses generated between approximately 850 and 1,500 employees, and the proposed Project (with primarily research and development and office uses) would generate approximately 3,190 employees. Based on employment generation factors presented in the SCAG Employment Density Study Summary Report (October 2001), it is estimated that operation of the existing buildings on-site with the shopping center uses generated approximately 640 employees, and the proposed Project (with primarily research and development and office uses) would generate approximately 2,590 employees. Therefore, it is estimated that the proposed Project would generate a net increase in employment at the Project site that could range from approximately 1,690 employees to up to 2,340 employees.

⁴⁶ 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 5,172,000 in 2035 (an increase of approximately 334,000 employees).

cause or contribute to new violations for air quality pollutants including VOC, NO_x, CO, SO_x, PM₁₀, 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
Regional Project Construction Emissions
(pounds per day)^a

Construction Year	VOC ^b	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Winter						
Year 2026	3	26	38	<1	13	2
Year 2027	14	27	80	<1	14	4
Year 2028	14	26	77	<1	14	4
Year 2029	13	25	73	<1	14	4
Year 2030	15	35	86	<1	14	4
Maximum Unmitigated Construction Emissions	15	35	86	<1	14	4
SCAQMD Daily Significance Thresholds	75	100	550	150	150	55
Over/(Under)	(60)	(65)	(464)	(150)	(136)	(51)
Exceed Threshold?	No	No	No	No	No	No
Summer						
Year 2026	3	26	39	<1	13	2
Year 2027	14	26	89	<1	14	4
Year 2028	14	25	85	<1	14	4
Year 2029	13	24	81	<1	14	4
Year 2030	17	49	114	<1	16	5
Maximum Unmitigated Construction Emissions	17	49	114	<1	16	5
SCAQMD Daily Significance Thresholds	75	100	550	150	150	55
Over/(Under)	(58)	(51)	(436)	(150)	(134)	(50)
Exceed Threshold?	No	No	No	No	No	No
<p>Numbers may not add up exactly due to rounding.</p> <p>^a Compiled using the CalEEMod emissions model. The equipment mix and use assumptions for each phase are provided in Appendix AQ-3. CalEEMod modeling outputs are also provided in Appendix AQ-3.</p> <p>^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.</p> <p>Source: Eyestone Environmental, 2026.</p>						

Table 2
Localized Project Construction Emissions
(pounds per day)^a

Construction Year	NO _x	CO	PM ₁₀ ^b	PM _{2.5} ^b
Winter				
Year 2026	22	31	10	2
Year 2027	22	28	<1	<1
Year 2028	21	28	<1	<1
Year 2029	20	28	<1	<1
Year 2030	31	43	<1	<1
Maximum Unmitigated Daily Localized Emissions	31	43	10	2
SCAQMD Localized Significance Thresholds^c	216	1,535	13	6
Over/(Under)	(185)	(1,492)	(3)	(4)
Exceed Threshold?	No	No	No	No
Summer				
Year 2026	22	31	10	2
Year 2027	22	28	<1	<1
Year 2028	21	28	<1	<1
Year 2029	20	28	<1	<1
Year 2030	44	62	1	1
Maximum Unmitigated Daily Localized Emissions	44	62	10	2
SCAQMD Localized Significance Thresholds^c	216	1,535	13	6
Over/(Under)	(172)	(1,473)	(3)	(4)
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 assumptions for each phase are provided in Appendix AQ-3. CalEEMod modeling outputs are also provided in Appendix AQ-3.

^b PM₁₀ 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. 2 (Northwest Los Angeles County Coastal) for a 5-acre site with a 25-meter receptor distance. The closest sensitive receptors are residential uses located adjacent and west of the Project Site. Refer to SCAQMD Localized Significance Threshold Methodology, Appendix C, July 2008.

Source: Eyestone Environmental, 2026; SCAQMD, Final Localized Significance Threshold Methodology, July 2008.

Table 3
Project Regional Operational Emissions—Project Buildout (2030)
(pounds per day)^a

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Baseline—Winter						
Area	18	<1	<1	<1	<1	<1
Energy (Natural Gas) ^b	<1	<1	<1	<1	<1	<1
Mobile	45	23	232	<1	48	12
Stationary (Emergency Generators)	<1	<1	<1	<1	<1	<1
Total	63	24	233	<1	48	13
Buildout—Winter						
Area	21	<1	<1	<1	<1	<1
Energy (Natural Gas)	0	0	0	0	0	0
Mobile (Non-Truck)	22	15	155	<1	41	10
Delivery Trucks and Loading Docks ^c	<1	8	4	<1	<1	<1
Stationary (Emergency Generators)	5	3	14	<1	<1	<1
Total	49	26	173	<1	41	11
Project (Buildout less Baseline Operations)—Winter						
Area	3	<1	<1	<1	<1	<1
Energy (Natural Gas) ^b	(0)	(1)	(1)	(0)	(0)	(0)
Mobile (Non-Truck)	(23)	(8)	(77)	(0)	(7)	(2)
Delivery Trucks and Loading Docks ^c	<1	8	4	<1	<1	<1
Stationary (Emergency Generators)	5	3	14	0	0	1
Total Proposed Uses Net Emissions	(14)	2	(60)	0	(7)	(2)
SCAQMD Significance Threshold	55	55	550	150	150	55
Over/(Under)	(69)	(53)	(610)	(150)	(157)	(57)
Exceed Threshold?	No	No	No	No	No	No
Baseline—Summer						
Area	27	<1	54	< 0.005	<1	<1
Energy (Natural Gas) ^b	<1	<1	<1	<1	<1	<1
Mobile	46	21	237	<1	48	12
Stationary (Emergency Generators)	<1	<1	<1	<1	<1	<1
Total	73	23	291	<1	48	13
Buildout—Summer						
Area	30	<1	59	<1	<1	<1
Energy (Natural Gas)	<1	<1	<1	<1	<1	<1
Mobile (Non-Truck)	22	14	166	<1	41	10
Delivery Trucks and Loading Docks ^c	<1	8	4	<1	<1	<1
Stationary (Emergency Generators)	5	3	14	<1	<1	<1
Total	58	25	243	<1	41	11

Table 3 (Continued)
Project Regional Operational Emissions—Project Buildout (2030)
(pounds per day)

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Project (Buildout less Baseline Operations)—Summer						
Area	3	<1	5	<1	<1	<1
Energy (Natural Gas) ^b	(0)	(1)	(1)	(0)	(0)	(0)
Mobile (Non-Truck)	(24)	(7)	(71)	(0)	(7)	(2)
Delivery Trucks and Loading Docks ^c	<1	8	4	<1	<1	<1
Stationary (Emergency Generators)	5	3	14	<1	<1	<1
Total Proposed Uses Net Emissions	(15)	2	(48)	<1	(7)	(2)
SCAQMD Significance Threshold	55	55	550	150	150	55
Over/(Under)	(70)	(53)	(598)	(150)	(157)	(57)
Exceed Threshold?	No	No	No	No	No	No
<p>Numbers may not add up exactly due to rounding.</p> <p>^a The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix AQ-3 (CalEEMod Output).</p> <p>^b Includes natural gas usage from existing boilers.</p> <p>^c To provide a conservative analysis, baseline operations were assumed to have minimal heavy duty truck trips. The Project's incremental emissions did not take credit for existing loading dock activity.</p> <p>Source: Eyestone Environmental, 2026.</p>						

Table 4
Project Localized Operational Emissions—Project Buildout (2030)
(pounds per day)^a

Emission Source	NO _x	CO	PM ₁₀	PM _{2.5}
Baseline—Winter				
Area ^b	<1	<1	<1	<1
Energy (Natural Gas)	<1	<1	<1	<1
Stationary (Emergency Generators)	<1	<1	<1	<1
Total	<1	<1	<1	<1
Buildout—Winter				
Area ^b	<1	<1	<1	<1
Energy (Natural Gas)	0	0	0	0
Delivery Trucks and Loading Docks ^c	2	2	<1	<1
Stationary (Emergency Generators)	3	14	<1	<1
Total	3	15	<1	1
Project (Buildout less Baseline Operations)—Winter				
Area ^b	<1	<1	<1	<1
Energy (Natural Gas)	(1)	(1)	(0)	(0)
Delivery Trucks and Loading Docks ^c	2	2	<1	<1
Stationary (Emergency Generators)	3	14	<1	<1
Project Emissions^c	3	15	<1	1
SCAQMD Significance Threshold^d	216	1,535	3	2
Over/(Under)	(212)	(1,519)	(3)	(1)
Exceed Threshold?	No	No	No	No
Baseline—Summer				
Area ^b	<1	<1	<1	<1
Energy (Natural Gas)	<1	<1	<1	<1
Stationary (Emergency Generators)	<1	<1	<1	<1
Total	<1	<1	<1	<1
Buildout—Summer				
Area ^b	<1	5	<1	<1
Energy (Natural Gas)	0	0	0	0
Delivery Trucks and Loading Docks ^c	2	2	<1	<1
Stationary (Emergency Generators)	3	14	<1	1
Total	3	20	<1	1
Project (Buildout less Baseline Operations)—Summer				
Area ^b	<1	5	<1	<1
Energy (Natural Gas)	(1)	(1)	(0)	(0)
Delivery Trucks and Loading Docks ^c	2	2	<1	<1
Stationary (Emergency Generators)	3	14	<1	1

Table 4 (Continued)
Project Localized Operational Emissions—Project Buildout (2030)
(pounds per day)

Emission Source	NO _x	CO	PM ₁₀	PM _{2.5}
Project Emissions	3	20	<1	1
SCAQMD Significance Threshold^c	216	1,535	3	2
Over/(Under)	(212)	(1,514)	(3)	(1)
Exceed Threshold?	No	No	No	No
<p>^a Compiled using the CalEEMod emissions model. Worksheets and CalEEMod modeling outputs are also provided in Appendix AQ-3.</p> <p>^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.</p> <p>^c To provide a conservative analysis, baseline operations were assumed to have minimal heavy duty truck trips. The Project's incremental emissions did not take credit for baseline loading dock activity.</p> <p>^d The SCAQMD LSTs are based on Source Receptor Area No. 2 (Northwest Los Angeles County Coastal) for a 5-acre site with a 25-meter receptor distance. The closest sensitive receptors are residential uses located adjacent and west of the Project Site. Refer to SCAQMD Localized Significance Threshold Methodology, Appendix C, July 2008.</p> <p>Source: Eyestone Environmental, 2026; SCAQMD, Final Localized Significance Threshold Methodology, July 2008.</p>				

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?⁴⁷

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 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 1.8 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

⁴⁷ See Appendix AQ-1 Regulatory Framework, Table 1, for the attainment status of criteria pollutants.

significant impacts relative to the daily significance thresholds for criteria air pollutant emissions established within the SCAQMD CEQA Air Quality Handbook.⁴⁸

Construction

Construction of the Project has the potential to create regional air quality impacts from heavy-duty construction equipment, trucks hauling demolition debris and construction materials, 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 PM₁₀; and (6) 55 pounds per day for PM_{2.5}.⁴⁹

As discussed above, construction would occur in phases beginning in 2026, with the Research Park East core and shell improvements and Phase 1 tenant improvements anticipated to be complete in late 2027. Full buildout is expected by 2035. However, in order to analyze a worst-case scenario, it was assumed that the Project would be built in a single phase over 48 months with buildout as early as 2030. This is a conservative assumption in terms of the intensity of construction activity and since construction equipment and trucks are expected to emit less pollutants in future years due to more stringent emissions regulations.

⁴⁸ SCAQMD, *Air Quality Analysis Guidance Handbook*, www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook, accessed January 21, 2026.

⁴⁹ SCAQMD, *Air Quality Analysis Guidance Handbook*, www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook, accessed January 21, 2026.

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 30, 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, PM₁₀, 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.⁵⁰ SCAQMD provides LSTs applicable to the following criteria pollutants: NO_x, CO, PM₁₀, 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 approximately 9.3 acres, the majority of construction activities would occur within the existing building interiors, with limited exterior construction occurring in a maximum disturbance area of up to 3.2 acres in the southern portion of the Project Site; accordingly, the active work area outdoors will be less than five acres. All construction equipment operated indoors for tenant improvements will be electric powered.

Estimates of maximum construction-related localized (on-site) daily emissions for NO_x, CO, PM₁₀, and PM_{2.5} are presented in Table 2 on page 31. Based on the construction site acreage and distance to the closest off-site sensitive receptors, localized construction

⁵⁰ SCAQMD, *LST Methodology Appendix C—Mass Rate LST Look-Up Table*, October 2009.

emissions thresholds were obtained from the LST look-up tables and are also listed in Table 2 on page 31. The nearest residential uses are located adjacent to the Project Site along the western boundary of Research Park West. Residential uses are also located adjacent to the Project site along the southeastern boundary at Overland Avenue and Ayres Avenue. Additional sensitive uses include receptors south of the Project site across Ayres Avenue. While the majority of construction activities would occur indoors for tenant improvements, limited construction activities such as equipment staging/installation and vehicle travel may occur at or near the Project boundary, inside the perimeter wall. 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.⁵¹ Therefore, LSTs based on a 25-meter receptor distance were used. As presented in Table 2, construction-related daily maximum localized emissions would not exceed the SCAQMD daily significance thresholds for NO_x, CO, PM₁₀, 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. Calculation of the incremental changes in criteria pollutant emissions during operation takes into account the permanent removal of shopping center uses and subtracting those emissions from the Project's operational emissions. Regional operational emissions 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. The proposed land uses would result in limited increases in emissions generated by area sources (e.g., landscape equipment fuel combustion, consumer products, and architectural coatings). The Project would also replace existing equipment at the Project site with 11 emergency generators, boilers and heat pumps as part of the utility upgrades. Emissions for emergency generators were calculated for the Project's operational emissions inventory USEPA Tier IV emission factors for emergency generators.

⁵¹ SCAQMD, *Final Localized Significance Threshold Methodology*, revised July 2008.

The boilers and heat pumps would be powered by electricity and would not emit criteria pollutants during operations.

Regional Impacts

The results of the modeled emissions calculations are provided in Table 3 on page 32, and CalEEMod model output files are provided in Appendix AQ-3. Emissions presented in Table 3 represent a net change in emissions (Project minus emissions from operation of the existing buildings with the shopping center uses that operated on the Project Site). As indicated therein, the Project would result in a decrease in criteria pollutant emissions for VOC, CO, SO_x, PM₁₀, and PM_{2.5} and an increase in NO_x emissions. The net change in operational emissions would fall below the SCAQMD daily significance thresholds for long-term regional emissions. Therefore, impacts associated with regional operational emissions would be less than significant, and no mitigation measures are required. ***Regional operational emissions resulting from the Project would result in a less than significant air quality impact.***

Localized Impacts

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 34. Emissions presented in Table 4 represent a net change in emissions (Project minus emissions from operation of the existing buildings with the shopping center uses that operated on the Project Site). 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, the Project would result in a net decrease of localized operational emissions compared to emissions generated by the shopping center during its 35-year operational history on the Project Site. Project localized operational emissions would not exceed any of the LSTs for NO_x, CO, PM₁₀, 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.⁵² 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

⁵² SCAQMD, *Historical Data by Year*, www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year, accessed April 27, 2026.

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).⁵³

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.

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.⁵⁴ 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 decrease of 10,659 daily trips compared to operation of the existing buildings with shopping center uses, as detailed in Appendix AQ-3.⁵⁵ The Project would not add trips to any intersections and 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.***

⁵³ SCAQMD, *Historical Data by Year*, www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year, accessed April 27, 2026.

⁵⁴ Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

⁵⁵ 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.

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

The greatest potential for TAC emissions during construction would generally involve diesel particulate emissions associated with heavy equipment operations during utility trenching, excavation, and building construction 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 construction duration ranges from 48 months to approximately 10 years (with intermittent activities), with the majority of construction activities occurring within the building interiors. As such, given the relatively 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. In terms of Project research activities, the proposed labs would be designed to meet stringent UC and other regulatory requirements regarding ventilation, air filtering, hazardous material handling and storage, containment, personal protective gear, etc. 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 add 11 new/replacement emergency generators as part of the utility upgrades. Research Park West currently includes one emergency generator that would be replaced with a newer generator of similar size. New emergency generators would be located on the rooftop at Research Park East, approximately 100 meters from the closest residential uses. All generators would meet USEPA Tier IV emissions standards. For purposes of this analysis, it is conservatively assumed that testing would be performed monthly, with one generator tested for one hour per day.

The Project would enclose the existing loading dock at Block 1 and add a central loading dock to the existing Research Park East building, which would in turn increase the number of delivery truck trips. Based on the St. Onge Dock Feasibility Study, the Project would generate approximately 111 delivery truck loads per day. However, approximately 20 percent of these trucks would be heavy-heavy duty (HHDT), while the remaining trucks would be medium and light duty trucks.⁵⁶ The SCAQMD recommends that HRAs be conducted for substantial sources of DPM (e.g., truck stops and warehouse distribution facilities that generate more than 100 heavy duty trucks per day) and has provided guidance for analyzing mobile source diesel emissions.⁵⁷ Based on this guidance, the Project is not considered to be a substantial source of diesel particulate matter warranting a refined HRA since daily truck trips to the Project Site would not exceed 100 heavy duty trucks per day.⁵⁸ As the Project would generate a limited number of heavy-duty truck trips, loading dock related TACs would be less than significant. ***As such, Project-related TAC impacts during construction and operations would be less than significant.***

⁵⁶ St. Onge Company. *UCLA Research Park East Dock Feasibility Study*.

⁵⁷ SCAQMD, *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*, 2002.

⁵⁸ The CalEEMod output file for Project operations provided in Appendix C of this Draft EIR shows that the number of daily diesel truck trips would be less than 100 or 40 trucks with operating transport refrigeration units.

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 and construction equipment 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 does not include operation of any of these uses and would locate all trash and waste collection facilities within enclosed areas. 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.

Research using odorous materials would take place inside buildings with the appropriate laboratory hoods and ventilation equipment, as required by applicable regulations and UC requirements. In particular, the UCLA office of Environment, Health and Safety (EH&S) would conduct inspections and monitor compliance with UCLA's health and safety plans and procedures related to hazardous materials. Compliance with these regulations and requirements would preclude substantial odorous emissions associated with research activities. ***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.⁵⁹ 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.

Although it was conservatively assumed that the Project would be built out in a single phase, the Project may be constructed in phases where certain portions would be built out and occupied while construction would be occurring in other portions of the site. However, Project operations would result in a net decrease in emissions resulting from conversion of the shopping center. Therefore, concurrent construction and operational emissions would result in less than significant impacts.

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 (assumed to be 48 months) in comparison to a long-term (70-year) exposure duration typically used to assess exposure to TACs. As discussed above, although the Project construction duration could range up to approximately 10 years (with intermittent activities), a 48-month buildout schedule was conservatively assumed since the daily construction activities would be more intensive, resulting in higher daily emissions, in comparison to a phased 10-year buildout duration. Therefore, the construction TAC exposure under a 10-year construction schedule would also result in a less than significant impact.

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.

⁵⁹ SCAQMD, *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*, August 2003, Appendix D.

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 MTCO_{2e} threshold as well as the Project's consistency with statewide, regional, and University of California plans adopted for 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 net change in GHG emissions attributable to the Project compared to operation of the existing buildings with retail uses, using recommended air quality models. A 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 conservative estimate of the 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 was conservatively assumed to occur over approximately 48 months, with completion anticipated in 2030. It is estimated that grading and soil handling activities would be minimal requiring approximately 8,645 cubic yards of soil export.⁶⁰ 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

⁶⁰ Final earthwork numbers may change slightly based on soil conditions but are expected to remain minimal.

of construction activity. A summary of GHG emissions for each year of construction is presented in Table 5 on page 47.

As presented in Table 5, construction of the Project is estimated to generate a total of 10,477 metric tons of GHGs measured as an equivalent mass of carbon dioxide (CO₂e). 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.⁶¹ Accordingly, when amortized, Project construction would generate an estimated 348 MTCO₂e 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 major renovation project, including the requirement to achieve a minimum LEED BD+C Gold rating. The Project would also be required to exceed Title 24 requirements by at least 20 percent. The Project would result in direct and indirect reductions in GHG emissions generated by the relative reduction in vehicular trips (i.e., compared to the shopping center), as well as operational emissions 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 associated with waste streams (embodied energy of materials).

Operational emissions from the sources described above were estimated using CalEEMod in order to determine the net change in GHG emissions. The Project would result in a net decrease in operational emissions, which is calculated as the difference between the Project's total operational emissions and the estimated operational emissions under baseline conditions. The baseline conditions reflect operation of the regional shopping center within the existing buildings which occurred at the Project Site for 35 years, which generated 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 in 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 discussed above, the Project would provide at least

⁶¹ SCAQMD Governing Board Agenda Item 31, December 5, 2008.

Table 5
Combined Construction-Related Emissions
(MTCO₂e)

Year	MTCO ₂ e ^a
2026	552
2027	2,741
2028	2,713
2029	2,672
2030	1,769
Total	10,477
Amortized Over 30 Years^b	348
<p>^a MTCO₂e = metric tons of an equivalent mass of carbon dioxide. CO₂e 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.</p> <p>^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.</p> <p>Source: Eyestone Environmental, 2026.</p>	

112 EV charging stations throughout the site which would reduce mobile source GHG emissions. However, the analysis conservatively did not take credit for a reduction in GHG emissions due to EV charging stations. As shown in Table 6 on page 48, the Project, with exceedance of the applicable regulatory requirements set forth in Title 24 and design features including the use of 100% renewable electricity, would result in a net decrease of 3,452 MTCO₂e 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 Change (Year 2030)^a
(metric tons of carbon dioxide equivalent [MTCO₂e])

Scope	Project
Mobile	(2,577)
Area ^b	2
Energy ^c	(1,643)
Water/Wastewater ^d	125
Solid Waste ^e	(202)
Refrigerant	1
Emergency Generators	494
Construction	348
Total Emissions	(3,452)
SCAQMD Project Threshold	3,000
Exceed Threshold?	No
<p>^a CO₂e 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 a net decrease (Project minus the operation of shopping center uses at the existing buildings under baseline conditions)</p> <p>^b Area source emissions are from landscape equipment. Landscaping activities under the Project would be generally similar as under the baseline uses.</p> <p>^c Energy source emissions are based on CalEEMod default electricity and natural gas usage rates. While the baseline uses involve the use of natural gas, the Project would be all-electric, thus contributing to a reduction in emissions.</p> <p>^d Water/Wastewater emissions are calculated based on CalEEMod default water consumption rates.</p> <p>^e Solid waste emissions are calculated based on CalEEMod default solid waste generation rates.</p> <p>Source: Eyestone Environmental, 2026.</p>	

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 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 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 and Clean Energy include the following goals applicable to projects that involve a major renovation of an existing building, such as the Project:

- At a minimum achieve a LEED BD+C Gold rating and register with the utilities' energy efficiency program, if eligible.
- Outperformance of CBC Title 24 energy efficiency requirements by at least 20 percent.
- By 2025, obtain 100 percent clean electricity.

- No use of on-site fossil fuel combustion (e.g., natural gas) for space and water heating (i.e., all-electric building).
- Achieve at least five points within the available credits in the LEED-BD+C Water Efficiency and Sustainable Sites: Rainwater Management categories and prioritize earning waste reduction and recycling credits.

The Project would be subject to the CBC Title 24 standards in effect at the time that 100 percent Design Development plans are submitted for approval by UCLA's Campus Building Official and would be designed to achieve a LEED BD+C Gold certification at minimum. 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 the entire Project site; the use of 100% renewable electricity through LADWP's Green Power for a Green L.A. program; enhanced commissioning of building mechanical systems to maximize efficiencies; new efficient emergency generators; and harvest and reuse of stormwater runoff. Additionally, with respect to water conservation, LRDP PPs 4.14-2(a) through 4.14-(d) are incorporated into the Project and require installing 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. Further, as required by LRDP PP 4.14-2(g), building occupants would be educated on the importance of water conservation measures. The proposed Project would also incorporate energy conservation measures per LRDP PP 4.14-9 to reduce electricity demands, as identified in Section V.A of this document. Therefore, the Project would comply with relevant UC requirements related to Green Building Design and Clean Energy.

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 campus or medical center rather than individual projects, the Project would support these reduction goals by promoting alternative modes of transportation both for commuting purposes and for travel between the main campus and the Project site. The Project's convenient access to public transit, UCLA's TDM measures such as discounted transit passes and carpool planning support, as well as the provision of bicycle parking and related facilities 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.

With respect to solid waste generation, the Zero Waste section of the UC Policy on Sustainable Practices requires each location to reduce per capita municipal solid waste generation by 50 percent per capita from fiscal year (FY) 2015/2016 levels by 2030 and to divert 90 percent of municipal solid waste from landfills. LRDP PP 4.14-3 is incorporated into the Project and requires implementation of a solid waste reduction and recycling program designed to limit the total quantity of solid waste that is disposed of in landfills. The proposed Project would include trash and recycling facilities and would implement UCLA's solid waste management programs necessary to achieve the required diversion goals. As such, the Project would support both the waste reduction and diversion goals established within UC Policy on Sustainable Practices.

In summary, the 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 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.⁶² An evaluation of the goals, plans, and policies implemented by UCLA as part of the Project to support the GHG reduction strategies in Scoping Plan's three priority areas is provided below.

- **Transportation Electrification.** As previously discussed, the Project would provide at least 111 EV-ready spaces and at least 112 EV charging stations throughout the site, thus supporting electric vehicle transportation.
- **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. The Project would also include bicycle parking, showers, and locker facilities. Further, based on the VMT analysis prepared by Fehr & Peers, the Project Site is located within a transit priority area and a low VMT area, and the Project would have a less than significant VMT impact. Additionally, the Project would result in a substantial reduction in daily trips compared to the estimated trips generated by the shopping center during its 35-year operational history on the Project Site (net reduction of 10,659 trips), which would also reduce VMT.
- **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-fired 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 the electricity 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 or location to obtain 100 percent clean electricity (defined as having carbon intensity factor of less than 150 lbs CO₂e per MWh). The Project would purchase 100% renewable

⁶² 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.

electricity for Project operations. In future years, the LADWP will be required to increase the amount of renewable energy in its 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. Additionally, the Project would be all-electric by design.

The Project would further support these decarbonization strategies by achieving a LEED Gold BD+C rating at minimum. LEED measures incorporated into the Project include water conservation, enhanced commissioning, and energy efficiency measures. Additionally, the Project would replace existing fixtures with energy-efficient LED lighting.

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.

Alignment 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.⁶³ To accomplish this goal, the SCAG 2024–2050 RTP/SCS identifies various strategies to reduce per capita VMT. The 2024–2050 RTP/SCS 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.⁶⁴ 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

⁶³ SCAG, *Final Connect SoCal 2024 (2024–2050 RTP/SCS)*, adopted April 2024.

⁶⁴ SCAG, *Draft Program EIR for the 2024–2050 RTP/SC*, Section 3.8, *Greenhouses*, November 2023, pp. 3.8–3.55.

RTP/SCS regional planning framework), these strategies and policies are addressed below for informational purposes, and the Project would fall within 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 net increase in 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 estimated net increase in employees with the Project compared to operation of the existing buildings with the shopping center uses would represent approximately 0.7 percent to 0.9 percent of the employment increase projected for Los Angeles County in the 2024–2050 RTP/SCS for the period between 2025 and 2035.⁶⁵

VTM 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 existing buildings 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 Site, as discussed previously. Notably, to encourage the use of transit, pedestrian access from the nearby Metro E-Line Westwood/Rancho Park station to the Project site would be provided to facilitate the 'last mile' connection to the Project Site, and discounted transit passes would be available to eligible Project employees as part of UCLA'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:⁶⁶

- 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.

⁶⁵ 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 5,386,000 in 2035 (an increase of approximately 255,000 employees).

⁶⁶ SCAG, 2024–2050 RTP/SCS, Table 5.1, Connect SoCal 2024 Performance Measures.

As discussed above, the Project represents an adaptive reuse of existing buildings and involves increased employment within an HQTAs that is well served by public transportation.⁶⁷ 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 at least 111 EV-ready spaces and at least 112 EV charging stations throughout the site.

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 required by the UC Policy on Sustainable Practices. Additionally, the Project would meet or exceed the requirements of the CALGreen Code.⁶⁸ These standards serve to reduce energy and water usage and waste generation and, thereby, reduce associated GHG emissions and help minimize the impact on natural resources and infrastructure.

⁶⁷ SCAG, 2024–2050 RTP/SCS, Map 3.4, Priority Development Areas.

⁶⁸ California Building Standards Commission, 2022 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11, effective January 1, 2023.

Land Use Assumptions

At the regional level, the 2024–2050 RTP/SCS is a plan adopted for the purpose of reducing GHGs.⁶⁹ In order to assess the Project’s alignment with the 2024–2050 RTP/SCS, this report considers the Project’s land use characteristics in relation 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.⁷⁰ 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.

⁶⁹ 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.

⁷⁰ As discussed above, SB 375 legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32.

UCLA Research Park

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
 - GHG Emissions Summary
 - Localized Significance Threshold (LST) Calculation Worksheets
 - Summary of Construction Assumptions
 - Trip Generation Summary
 - SB 100
 - Natural Gas Boiler Calculations
 - Emergency Generator Calculations
 - Truck Loading Dock Emissions
 - EMFAC2025 vs EMFAC2021
- CalEEMod Outputs
 - Existing Operations at Buildout Year
 - Project Construction and Operations
 - Project Construction Onsite

UCLA Research Park

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

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 O₃ 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.

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)	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)	Non-Attainment
	Annual	12 µg/m ³	12 µg/m ³		
Carbon Monoxide (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 ^e	Attainment
	Rolling 3-month average	0.15 µg/m ³	—		
Sulfates	24 hour	—	25 µg/m ³	—	Attainment
Hydrogen Sulfide (H ₂ S)	1 hour	—	0.03 ppm (42 µg/m ³)	—	Unclassified

ppm = parts per million by volume

µg/m³ = micrograms per cubic meter

^a An ambient air quality standard is a concentration level expressed in either ppm or µg/m³ 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 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 O₃, PM₁₀, 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 O₃ 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 emissions⁴ sufficiently to meet the O₃ standard deadlines as NO_x plays a critical role in the creation of O₃. Since NO_x emissions also lead to the formation of PM_{2.5}, the NO_x reductions needed to meet the O₃ 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 O₃ 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 to the regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. SCAG is required by

⁴ NO_x emissions are a precursor to the formation of both O₃ 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.

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.

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.

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

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

(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 PM_{2.5} Significance Thresholds*.¹⁴ The latter document has been incorporated by the SCAQMD into its CEQA significance thresholds and *Final Localized Significance Threshold Methodology*.

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.

(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 PM₁₀ emissions to less than 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), 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—PM₁₀ 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 PM₁₀ 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

(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 CO₂ 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, CH₄ and other non-CO₂ 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 CO₂ 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

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.

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 CO₂ 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 CO₂ 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, 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

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.

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.

(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

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.

- 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

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

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 CO₂ 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 CO₂ would be reduced to zero by applying CO₂ 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 CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ 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 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

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.

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 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

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.

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.

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.

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 ₂ e)
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)
<p><i>MMTCO₂e = million metric tons of carbon dioxide equivalents; parenthetical numbers represent negative values.</i></p> <p>^a $312 - 260 = 52$. $52 / 312 = 16.7\%$</p> <p><i>Source: CARB, Final 2022 Climate Change Scoping Plan, adopted December 2022.</i></p>	

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
<p>AB 1279 (Muratsuchi, Chapter 337, Statutes of 2022)</p> <p><i>The California Climate Crisis Act</i></p>	<p>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 CO₂ removal solutions and carbon capture, utilization, and storage (CCUS) technologies.</p> <p>This bill is implemented through the 2022 Scoping Plan.</p>
<p>SB 905 (Caballero, Chapter 359, Statutes of 2022)</p> <p><i>Carbon Capture, Removal, Utilization, and Storage Program</i></p>	<p>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.</p> <p>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.</p> <p>The 2022 Scoping Plan modeling reflects both CCUS and CDR contributions to achieve carbon neutrality.</p>
<p>SB 846 (Dodd, Chapter 239, Statutes of 2022)</p> <p><i>Diablo Canyon Powerplant: Extension of Operations</i></p>	<p>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.</p> <p>The 2022 Scoping Plan explains the emissions impact of this legislation.</p>
<p>SB 1020 (Laird, Chapter 361, Statutes of 2022)</p> <p><i>Clean Energy, Jobs, and Affordability Act of 2022</i></p>	<p>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.</p> <p>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.</p>

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) <i>Oil & Gas Operations: Location Restrictions: Notice of Intention: Health protection zone: Sensitive receptors</i>	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) <i>Hydrogen: Green Hydrogen: Emissions of Greenhouse Gases</i>	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) <i>California Global Warming Solutions Act of 2006: Climate Goal: Natural and Working Lands</i>	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) <i>Hydrofluorocarbon gases: sale or distribution</i>	<p>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.</p>
SB 27 (Skinner, Chapter 237, Statutes of 2021) <i>Carbon Sequestration: State Goals: Natural and Working Lands: Registry of Projects</i>	<p>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 CO₂ 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.</p> <p>CNRA also must track carbon removal and GHG emission reduction benefits derived from projects funded through the registry.</p> <p>This bill is reflected directly in the 2022 Scoping Plan as CO₂ removal targets for 2030 and 2045 in support of carbon neutrality.</p>
SB 596 (Becker, Chapter 246, Statutes of 2021) <i>Greenhouse Gases: Cement Sector: Net-zero Emissions Strategy</i>	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>The 2022 Scoping Plan modeling is designed to achieve these outcomes.</p>
Executive Order N-82-20	<p>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.</p> <p>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</p>

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

Bill/Executive Order	Summary
	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>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.</p> <p>The Natural and Working Lands Climate Smart Strategy informs the 2022 Scoping Plan.</p>
Executive Order N-79-20	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>The Executive Order also tasked CARB to develop and propose regulations that require increasing volumes of zero-electric passenger vehicles, medium- and heavy-duty vehicles, drayage trucks, and off-road vehicles toward their corresponding targets of 100 percent zero-emission by 2035 or 2045, as listed above.</p> <p>The 2022 Scoping Plan modeling reflects these targets.</p>
Executive Order N-19-19	<p>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:</p> <ul style="list-style-type: none"> • 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
	<p>focus of reducing carbon emissions and adapting to the impacts of climate change.</p> <ul style="list-style-type: none"> Aligns with the fiduciary responsibilities of the California Public Employees' Retirement System, California State Teachers' Retirement System, and the University of California Retirement Program. <p>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:</p> <ul style="list-style-type: none"> 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. <p>The 2022 Scoping Plan modeling reflects efforts to accelerate ZEV deployment.</p>
<p>SB 576 (Umbert, Chapter 374, Statutes of 2019)</p> <p><i>Coastal Resources: Climate Ready Program and Coastal Climate Change Adaptation, Infrastructure and Readiness Program</i></p>	<p>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.</p>
<p>AB 65 (Petrie- Norris, Chapter 347, Statutes of 2019)</p> <p><i>Coastal Protection: Climate Adaption: Project Prioritization: Natural Infrastructure: Local General Plans</i></p>	<p>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.</p>

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

Bill/Executive Order	Summary
Executive Order B-55-18	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>This Executive Order also calls for CARB to:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>
<p>SB 100 (De León, Chapter 312, Statutes of 2018)</p> <p><i>California Renewables Portfolio Standard Program: emissions of greenhouse gases</i></p>	<p>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.</p> <p>The 2022 Scoping Plan reflects SB 100 requirements with a few minor updates.</p>
<p>AB 2127 (Ting, Chapter 365, Statutes of 2018)</p> <p><i>Electric Vehicle Charging Infrastructure: Assessment</i></p>	<p>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.</p> <p>This bill supports the deployment of ZEVs as modeled in the 2022 Scoping Plan.</p>
<p>SB 30 (Lara, Chapter 614, Statutes of 2018)</p> <p><i>Insurance: Climate Change</i></p>	<p>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.</p>
AB 2061 (Frazier, Chapter 580, Statutes of 2018)	<p>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</p>

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

Bill/Executive Order	Summary
<i>Near-zero-emission and Zero-emission Vehicles</i>	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 Program³⁰ 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 sectors³¹ (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 MTCO₂e per year must comply with the Cap-and-Trade Program.³² Triggering of the 25,000 MTCO₂e 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-

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, Statutes 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

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 CO₂ 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

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,

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.

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

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

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 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. 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:

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

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).

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 Geronio 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 MTCO₂e per year. Under this proposal, commercial/residential projects that emit fewer than 3,000 MTCO₂e per year would be assumed to have a less-than-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 MTCO₂e per year for stationary source/industrial projects where the SCAQMD is the lead agency.

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.

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 Areas⁶¹ (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 infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability.

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.

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). Notably, the UC Policy on Sustainable Practices covers the areas of green building design, clean energy, and sustainable transportation. 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 Certified⁶³

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

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

UCLA Research Park

Appendix AQ-2: Air Quality and Greenhouse Gas Methodology

- Appendix AQ-2: Air Quality and Greenhouse Gas Methodology

AIR QUALITY AND GREENHOUSE GAS EMISSIONS METHODOLOGY

UCLA Research Park

Prepared by:

Eyestone Environmental, LLC

January 2026

UCLA Research Park Project

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 Research Park (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;
 - Mobile source: emissions associated with vehicles accessing the project site; and

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

- 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.

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:

$$\text{Emissions Diesel [lbs]} = \left(\sum_i (EF_i \times \text{Pop}_i \times \text{AvgHP}_i \times \text{Load}_i \times \text{Activity}_i) \right)$$

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 $\text{PM}_{2.5}$ 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) = $EF_{AC} \times F \times A_{\text{paint}}$

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 will 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:

$EF_{AC} = C_{\text{VOC}}/454(\text{g/lb}) \times 3.785(\text{L/gal})/180(\text{sf})$

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:

$$\text{Emissions}_{\text{AP}} (\text{lbs}) = \text{EF}_{\text{AP}} \times A_{\text{parking}}$$

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:

$$\text{Emissions Consumer Products (lbs)} = \text{EF}_{\text{CP}} \times \text{Building Area}$$

Where:

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

The factor is 1.98×10^{-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:

$$\text{Landscaping Equipment Emissions [lbs]} = (\sum_i (\text{Units} \times \text{EF}_{\text{LE}} \times \text{ALE})_i)$$

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:

$$\text{Natural Gas Emissions (lbs)} = (\sum_i (\text{Units} \times D_{\text{NG}} \times EF_{\text{NG}})_i)$$

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]
/ = 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:

$$\text{Mobile Emissions [lbs]} = (\sum_i (\text{Units} \times \text{ADT} \times D_{\text{TRIP}} \times EF_i))$$

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:

$$\text{Emissions [lbs]} = (\text{Total HP} \times \text{LF} \times \text{HR} \times \text{EF})$$

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 CO₂ and CH₄ 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 MTCO₂e were calculated in CalEEMod as follows:

Solid Waste:

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times D_{\text{MSW}} \times EF_{\text{MSW}} \times \text{GWP})_i) \div 1.1023$$

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 annual 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 76.4-percent recycling/diversion rate currently achieved within the City of Los Angeles.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.

⁴ City of Los Angeles Zero Waste Progress Report, March 2013.

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):

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times D_w \times (\text{El}_w \div 1,000) \times \text{EF}_w \times \text{GWP})_i) \div 2,204.62$$

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]
El_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 [CO₂ = 1, CH₄ = 21, N₂O = 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 Research Park

Appendix AQ-3: Air Quality and Greenhouse Gas Worksheets

- Appendix AQ-3: Air Quality and Greenhouse Gas Worksheets
 - Summary of Criteria Air Pollutant Emissions
 - GHG Emissions Summary
 - Localized Significance Threshold (LST) Calculation Worksheets
 - Summary of Construction Assumptions
 - Trip Generation Summary
 - SB 100
 - Natural Gas Boiler Calculations
 - Emergency Generator Calculations
 - Truck Loading Dock Emissions
 - EMFAC2025 vs EMFAC2021
- CalEEMod Outputs
 - Existing Operations at Buildout Year
 - Project Construction and Operations
 - Project Construction Onsite

UCLA - Research Park
Emissions Summary - Summer

Construction Emissions (Unmitigated)

Regional (Daily) Unmitigated	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}
Year 2026	3	26	39	<1	13	2
Year 2027	14	26	89	<1	14	4
Year 2028	14	25	85	<1	14	4
Year 2029	13	24	81	<1	14	4
Year 2030	17	49	114	<1	16	5
MAX	17	49	114	<1	16	5
Threshold	75	100	550	150	150	55
Difference	(58)	(51)	(436)	(150)	(134)	(50)
Impact	No	No	No	No	No	No

Localized (Daily) Unmitigated	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}
Year 2026	3	22	31	<1	10	2
Year 2027	10	22	28	<1	<1	<1
Year 2028	10	21	28	<1	<1	<1
Year 2029	10	20	28	<1	<1	<1
Year 2030	13	44	62	<1	1	1
MAX		44	62		10	2
Threshold		216	1535		13	6
Difference		(172)	(1,473)		(3)	(4)
Impact		No	No		No	No

Operation Emissions

Existing Regional Emissions (Existing Year)	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}
Mobile	46	21	237	<1	48	12
Area	27	<1	54	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Emergency Generator	<1	<1	<1	<1	<1	<1
Total	73	22	292	<1	48	12

Existing Regional Emissions (Buildout Year)	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}
Mobile	46	21	237	<1	48	12
Area	27	<1	54	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Emergency Generator	<1	<1	<1	<1	<1	<1
Total	73	22	292	<1	48	12

Project Regional Emissions (Buildout Year)	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}
Mobile	22	14	166	<1	41	10
Area	30	<1	59	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Emergency Generator	5	3	14	0	0	1
Trucks	<1	8	4	<1	<1	<1
Total	58	25	243	<1	41	11

Incremental Regional Emissions (Project Less Existing)	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}
Mobile	(24)	(7)	(71)	(0)	(7)	(2)
Area	3	<1	5	<1	<1	<1
Energy	0	-1	-1	0	0	0
Emergency Generator	5	3	14	0	0	1
Trucks	<1	8	4	<1	<1	<1
Total	(15)	3	(49)	0	(7)	(1)
Threshold	55	55	550	150	150	55
Difference	(70)	(52)	(599)	(150)	(157)	(56)
Impact	No	No	No	No	No	No

Project Localized (Buildout Year)	Area	Energy	Emergency Generator	Onsite Total	Threshold	Difference	Impact
Area	3.0	0.0	5.0	0.0	0.0	0.0	0.0
Energy	(0.1)	(1.0)	(0.8)	(0.0)	(0.1)	(0.1)	(0.1)
Emergency Generator	5.3	2.6	14.0	0.0	0.1	0.8	0.8
Onsite Total	8.3	1.7	18.2	0.0	0.0	0.7	0.7
Threshold		216	1,535		3	2	
Difference		(214)	(1,516)		(3)	(1)	
Impact		No	No		No	No	

UCLA - Research Park
Emissions Summary - Winter

Construction Emissions (Unmitigated)

Regional (Daily) Unmitigated	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}
Year 2026	3	26	38	<1	13	2
Year 2027	14	27	80	<1	14	4
Year 2028	14	26	77	<1	14	4
Year 2029	13	25	73	<1	14	4
Year 2030	15	35	86	<1	14	4
MAX	15	35	86	<1	14	4
Threshold	75	100	550	150	150	55
Difference	(60)	(65)	(464)	(150)	(136)	(51)
Impact	No	No	No	No	No	No

Localized (Daily) Unmitigated	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}
Year 2026	3	22	31	<1	10	2
Year 2027	10	22	28	<1	<1	<1
Year 2028	10	21	28	<1	<1	<1
Year 2029	10	20	28	<1	<1	<1
Year 2030	12	31	43	<1	<1	<1
MAX		31	43		10	2
Threshold		216	1535		13	6
Difference		(185)	(1,492)		(3)	(4)
Impact		No	No		No	No

Operation Emissions

Existing Regional Emissions (Existing Year)	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}
Mobile	45	23	232	<1	48	12
Area	18	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Emergency Generator	<1	<1	<1	<1	<1	<1
Total	63	24	233	<1	48	12

Existing Regional Emissions (Buildout Year)	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}
Mobile	45	23	232	<1	48	12
Area	18	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Emergency Generator	<1	<1	<1	<1	<1	<1
Total	63	24	233	<1	48	12

Project Regional Emissions (Buildout Year)	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}
Mobile	22	15	155	<1	41	10
Area	21	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Emergency Generator	5	3	14	<1	<1	<1
Trucks	<1	8	4	<1	<1	<1
Total	49	26	173	<1	41	11

Incremental Regional Emissions (Project Less Existing)	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}
Mobile	<1	<1	<1	<1	<1	<1
Area	3	<1	<1	<1	<1	<1
Energy	0	-1	-1	0	0	0
Emergency Generator	5	3	14	<1	<1	<1
Trucks	<1	8	4	<1	<1	<1
Total	(14)	2	(60)	0	(7)	(1)
Threshold	55	55	550	150	150	55
Difference	(69)	(53)	(610)	(150)	(157)	(56)
Impact	No	No	No	No	No	No

Project Localized (Buildout Year)	ROG	NO _x	CO	SO2	PM ₁₀	PM _{2.5}
Area	3.0	0.0	0.0	0.0	0.0	0.0
Energy	(0.1)	(1.0)	(0.8)	(0.0)	(0.1)	(0.1)
Emergency Generator	5.3	2.6	14.0	0.0	0.1	0.8
Onsite Total	8.3	1.6	13.2	0.0	0.0	0.7
Threshold	216	1,535			3	2
Difference		(214)	(1,521)		(3)	(1)
Impact		No	No		No	No

UCLA - Research Park

Construction Emissions Summary (GHG)

CalEEMod Output Summary

Year	CO ₂ e
2026	552
2027	2741
2028	2713
2029	2672
2030	1769
Total	10447
30-year Amortized	348

Operational Emissions Summary (GHG)

CalEEMod Output Summary

Project

Baseline (Buildout Year)^a

CO₂e

Mobile	7,745
Area	25
Energy	1,643
Water	134
Waste	244
Refrig.	1
Stationary	0
Total	9,792

Buildout (Buildout Year)^b

Mobile	5,168
Area	27
Energy	0
Water	259
Waste	42
Refrig.	1
Stationary	494
EV Charging Credit	0
Construction	348
Total	6,340

Project (Buildout less Baseline)

Mobile	(2,577)
Area	2
Energy	(1,643)
Water	125
Waste	(202)
Refrig.	1
Stationary	494
EV Charging Credit	0
Construction	348
Total	(3,452)

^a Existing Uses

^b Please refer to CalEEMod outputs for Future uses

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

Northwest Coastal

SRA	City	Design Value	98th percentile, ppb		
		2021-2023	2022	2023	2024
2	Northwest Coastal	42	45	40	42
SRA	City	Design Value	Max Hourly, ppb		
		2006-2008	2022	2023	2024
1	Northwest Coastal	120	51	44	54

Threshold (ppb) Allowable Increase (ppb)
100 58

Threshold (ppb) Allowable Increase (ppb)
180 60

Max Hourly vs. 98th Percentile Ratio (Allowable Increase)	97%
---	-----

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

LST Threshold (SRA 1, 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)
1	103	99	562	4	3	1	1
2	147	142	827	6	4	2	1
5	221	213	1531	13	6	3	2
5	223	216	1535	13	6	3	2

<----Interpolated Value

UCLA Research Park
Air Quality Analysis Assumptions
11.26.2025

The following information describes the quantity of construction equipment projected during the various stages of construction for a single phased project.

Construction Details	Start Date	End Date	Construction Duration (Months)	Work Days Per Week	Total Work Days (calculated)	Max Daily Employees	Avg Daily Employees	Max Daily Hauls	Avg Daily Hauls (calculated)	Total Hauls (calculated)	Max Daily Deliveries	Avg Daily Deliveries
Overall Duration	7/1/2026	6/30/2030	48									
Demolition	7/1/2026	12/31/2026	6	6	157	40	20	4	1	118	4	2
Grading/Excavation	9/1/2026	10/31/2026	2	6	52	10	5	2	17	865	4	2
Mat Foundation	7/1/2026	7/1/2026	-	6	-	-	-				-	-
Building Foundation	7/1/2026	7/1/2026	-	6	-	-	-				-	-
Building Construction (primarily Tls)	1/1/2027	6/30/2030	42	6	1,094	500	250				15	7
Paving/Landscape	5/1/2030	6/30/2030	2	6	52	10	5				20	4
Off-Site Improvements	1/1/2030	6/30/2030	6	6	155	6	3				2	1

Site Acreage	
Demolition Quantities	(calculated)
Building Square Footage (SF)	12,700
Parking (SF)	-
Parking (spaces)	-
Import/Export Quantities during Grading	(CY)
Import	0
Export	8,645

Based on 10 CY trucks

Landfill Location	One-way Dist. (miles)		
Calabasas Landfill	25		
Onsite Travel	Paved	Unpaved	
Demolition/Site Prep	723	0	Feet
Grading	500	0	Feet

Note: If offsite staging areas are used, then ple

Equipment	Worst-Case Day						
	Demo	Grading/Excavation	Mat Foundation	Foundation	Building Construction	Paving/Landscape	On-Site Improvements
Air Compressor	6				6	1	
Aerial Lift							
Bore/Drill Rig							
Cement and Mortar Mixers				2	1	2	
Concrete/Industrial Saws	2						
Cranes (Tower)				1	1	1	
Cranes (Mobile)							
Crawler Tractors							
Crushing/Proc. Equipment							
Excavators							
Forklifts	4				6	1	
Generator Sets					2	1	
Graders							1
Off-Highway Tractors							
Water Truck	1	1			1		1
Pavers						2	
Paving Equipment						2	
Pumps	1				2	1	
Plate Compactors						2	1
Rollers							
Rough Terrain Forklifts							
Rubber Tired Dozers							
Rubber Tired Loaders							
Scrapers							
Signal Boards							
Skid Steer Loaders	4				2	1	
Surfacing Equipment							1
Tractors/Loaders/Backhoes	2	2			1	1	
Trenchers							
Welders					6		
Other ()							
Boom Lifts	4						1
Jackhammers	12						2
Total Pieces	36	3	0	0	29	14	10

Average Day						
Demo	Grading/Excavation	Mat Foundation	Foundation	Building Construction	Paving/Landscape	On-Site Improvements
4				2	1	
				1	1	1
1						
				1	1	1
2				2	1	
				1	1	
						1
1	1			1		1
					1	
					1	
						1
2				1	1	
1	1			1	1	1
				2		
2						1
6						1
20	2	0	0	13	11	8

UCLA Research Park
Air Quality Analysis Assumptions
11/26/2025

Outdoor Equipment (subset of above list)	Worst-Case Day						
	Demo	Excavation	Foundation	Foundation	Construction	Landscape	Improvement
Air Compressor	3				2	1	
Aerial Lift							
Bore/Drill Rig							
Cement and Mortar Mixers					2	1	2
Concrete/Industrial Saws	1						
Cranes (Tower)							
Cranes (Mobile)					1	1	1
Crawler Tractors							
Crushing/Proc. Equipment							
Excavators							
Forklifts	2				2	1	
Generator Sets					1	1	
Graders							1
Off-Highway Tractors							
Water Truck	1	1			1		1
Pavers						2	
Paving Equipment						2	
Pumps	1				2	1	
Plate Compactors						2	1
Rollers							
Rough Terrain Forklifts							
Rubber Tired Dozers							
Rubber Tired Loaders							
Scrapers							
Signal Boards							
Skid Steer Loaders	4				2	1	
Surfacing Equipment							1
Tractors/Loaders/Backhoes	2	2			1	1	
Trenchers							
Welders					6		
Other ()							
Boom Lifts	2						1
Jackhammers	4						2
Total Pieces	20	3	0	0	20	14	10

Average Day						
Demo	Excavation	Foundation	Foundation	Construction	Landscape	Improvement
1				1	1	
				1	1	1
1						
				1	1	1
1				1	1	
				1	1	
						1
1	1			1		1
					1	
					1	
1				1	1	
					1	1
2				1	1	
						1
1	1			1	1	
				2		
1						1
2						1
11	2	0	0	11	11	8

UCLA - Research Park

Trip Generation

Project

	Amount	Daily	Walk/Bike/		
Land Use	(KSF) ¹	Trips ²	Transit Credit	Total	Trip Rate
Office Park	589.2	4,729	279	4,450	7.553
Research and Development	271.2	4,109	242	3,867	14.259
Total				8,317	

Existing

	Amount	Daily	Walk/Bike/		
Land Use	(KSF) ¹	Trips	Transit Credit	Total	Trip Rate
Shopping Center	744.385	20,091	1115	18,976	25.492
Total				18,976	

1 Square footage is based on Project Description

2 Fehr and Peers, December 8, 2025

UCLA Research Park

SB100 - Renewable Portfolio Standards

Year	% RPS	RPS Reduction (%)	Carbon Intensity (lbs/MWh)
2023	40		499
2024	44	-10%	448
2027	52	-15%	379
2030	60	-13%	329
2036	65	-8%	303
2045	100	-35%	0

Build Out Year	Carbon Intensity (lbs/MWh)
2025	445
2030	343

UCLA Research Park

Heat Pump and Boiler - Natural Gas to Electricity Conversion

Equipment Type	Number	MBH Heating
Heat Recovery Chiller	9	1,100
Air Source Heat Pump	11	2,000
Air Cooled Chiller	4	250
Electric Boiler	1	2,000

Boiler Data

	Project
Building Square Footage (KSF)	860.4
Boilers Input Heat Rating (MBH)	34,900
Hours per Year ^a	2,000
MMBTU/Year	69,800
kBTU/Year/KSF	81,125

Natural Gas Correction for Boilers

	CalEEMod Default ^b		Updated (kBTU/ Year/KSF)
	Therms/ Year/KSF	kBTU/ Year/KSF	Project All Electric
Water Heater	20	2,010	81,125
Primary Heat	119	11,960	
Cooking	1	101	101
Cooling	18	1,809	1,809
Misc	43	4,322	4,322
Refrig	0	0	0
Total		20,201	87,356
Total Natural Gas Usage		0	75,161,152
Equivalent kWh/Year ^c			22,022,218
CalEEMod Default Electricity - Project (kwh/year)			

Office Park	9,385,219
Research and Development	4,319,877
Adjusted CalEEMod Electricity - Project (kWh/year)	
Office Park	24,465,985
Research and Development	11,261,329

^a <https://www.federalregister.gov/documents/2022/04/20/2022-08427/energy-conservation-program-energy-conservation-s>

^b CAPCOA Handbook for Analyzing Greenhouse Gas Emission Reductions, Appendix C, Table E-15.2. General Office Building

UCLA Research Park

Emergency Generator Specs

Generator Location	PM Emission Factor			
	kW	HP	Number	(g/hp-hr) ¹
Block 1	1,500	2,010	2	0.02
Block 1	1,100	1,474	2	0.02
Block 2	1,000	1,340	6	0.02
Block 3	2,200	3,280	3	0.02
Hours per Year	50			
DPM Annual Emissions (lbs/year)	55			

¹ Tier 4. 2015 Generator Sets

UCLA Research Park
Heavy Duty Diesel Truck Emissions Calculations

Truck Model Year 2030

Regional Run Emissions

Total Trucks per Day	111					
Trip Length (mi.)	20					
Run Speed (mph)	40					
Breakdown						
Vehicle Class	Percent	EMFAC2007 Vehicle Class	Daily Trips (One-Way)	Daily VMT		
WB 40-50	20%	HHDT	45	900		
SU 20-40	60%	MHDT	134	2680		
Small Vehicles	20%	LHDT2	45	900		
	TOG	CO	NOx	PM10	PM2_5	SOx
HHDT - Run Emission Factors (lb/mi) ¹	2.9E-05	1.4E-04	3.3E-03	5.3E-05	5.1E-05	3.0E-05
MHDT - Run Emission Factors (lb/mi) ¹	4.9E-05	3.8E-04	1.0E-03	1.1E-05	1.0E-05	2.2E-05
LHDT2 - Run Emission Factors (lb/mi) ¹	1.1E-04	5.8E-04	7.7E-04	2.1E-05	2.1E-05	1.1E-05
Run Emissions (lbs/day)	0.3	1.7	6.5	0.1	0.1	0.1

On-site Run Emissions

Loads per Day	111					
On-site Trip Length (mi.)	0.25					
Breakdown						
Vehicle Class	Percent	EMFAC2007 Vehicle Class	Daily VMT			
WB 40-50	20%	HHDT	5.6			
SU 20-40	60%	MHDT	16.7			
Small Vehicles	20%	LHDT2	5.6			
	TOG	CO	NOx	PM10	PM2_5	SOx
HHDT - Run Emission Factors (lb/mi) ¹	3.0E-04	2.2E-03	2.4E-02	2.9E-05	2.8E-05	6.0E-05
MHDT - Run Emission Factors (lb/mi) ¹	4.5E-04	1.4E-03	4.9E-03	3.3E-05	3.2E-05	5.4E-05
LHDT2 - Run Emission Factors (lb/mi) ¹	3.7E-04	2.3E-03	1.3E-03	6.4E-05	6.1E-05	3.1E-05
On-site Run Emissions (lbs/day)	0.01	0.05	0.22	0.00	0.00	0.00

Idle Emissions

Loads per Day	111					
Idle Time Per Truck (min.)	15					
Daily Idle Time (hrs)	27.8					
Breakdown						
Vehicle Class	Percent	EMFAC2007 Vehicle Class	Daily Idle Time (hours)			
WB 40-50	20%	HHDT	5.6			
SU 20-40	60%	MHDT	16.7			
Small Vehicles	20%	LHDT2	5.6			

UCLA Research Park Truck
Emissions

	TOG	CO	NOx	PM10	PM2_5	SOx
HHDT - Idle Emission Factors (g/hr) ²	3.4E+00	3.5E+01	2.4E+01	1.3E-02	1.2E-02	4.5E-02
MHDT - Idle Emission Factors (g/hr) ²	2.0E+00	2.8E+01	2.5E+01	2.4E-02	2.3E-02	5.3E-02
LHDT2 - Idle Emission Factors (g/hr) ²	8.4E+00	6.2E+01	2.7E+01	5.8E-01	5.6E-01	5.3E-02
Onsite Idle Emissions (lbs/day)	0.22	2.22	1.56	0.01	0.01	0.00

Reentrained Road Dust

Paved Roads - Onsite Emissions	PM10	PM2.5
Reentrained Dust Emission Factors (g/mi) ³	0.297	0.073
Reentrained Dust Emissions (lbs/day)	0.02	0.00

Totals

	TOG	CO	NOx	PM10	PM2_5	SOx
Regional Emissions						
Run	0.3	1.7	6.5	0.1	0.1	0.1
Idle						
Start						
Brake and Tire Wear						
Reentrained Road Dust				0.0	0.0	
Total	0.3	1.7	6.5	0.1	0.1	0.1
	0.4	2.4	6.7	0.4	0.1	0.0
Localized Emissions						
Run	0.0	0.0	0.2	0.0	0.0	0.0
Idle	0.2	2.2	1.6	0.0	0.0	0.0
Start						
Reentrained Road Dust				0.0	0.0	
Total	0.2	2.3	1.8	0.0	0.0	0.0
On-site DPM				0.0	0.0	

¹ EMFAC2021 Web Database - Los Angeles County, EMFAC2007 Categories, HHDT

² EMFAC2021 Project Level (PL) v. 1.0.2 - Los Angeles County, EMFAC2007 Categories, HHDT

UCLA Research Park

Paved Road Dust Emission Factors

AP-42 Emission Factor Equation

$$[k(sL)^{0.91} \times (W)^{1.02}] \times (1 - P/4N)$$

Parameter	Value	Units
particle size multiplier (k)	1	
road surface silt loading (sL)	0.1	
average weight (W)	2.4 tons	
number of "wet" days (P)	16.8 days	
number of days in averaging period (N)	365 days	
Emission Factor	0.297	g/mi

PM2.5

Parameter	Value	Units
particle size multiplier (k)	0.25	
road surface silt loading (sL)	0.1	
average weight (W)	2.4 tons	
number of "wet" days (P)	33 days	
number of days in averaging period (N)	365 days	
Emission Factor	0.073	g/mi

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2025, 2030, 2035

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for Combustion VMT and Electric VMT, tons/day for Emissions, 1000 gallons/day for Gasoline and Diesel Fuel Consumption, 1000 diesel equivalent gallons/day for Natural Gas Fuel Consumption, kWh/day for Energy Consumption, mph for Speed

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Total VMT	CVMT	EVMT	NOx_RUNEX	PM2.5_RU	PM10_RU	CO2_RUNE	CH4_RUNE	N2O_RUNE	ROG_RUNE	TOG_RUNE	CO_RUNE	SOx_RUNE	NH3_RUNE	PM10_PM	PM2.5_PM	Fuel Consu	Energy Con
Los Angele	2025	HHDT	Aggregate		5 Gasoline	0.300737	0.300736615	0	2.80E-06	2.82E-09	3.07E-09	0.00164	2.81E-07	9.55E-08	1.47E-06	2.14E-06	2.89E-05	1.62E-08	1.47E-08	5.14E-08	1.80E-08	0.000173	0
Los Angele	2025	HHDT	Aggregate		5 Diesel	473.2734	473.2734236	0	0.00582381	7.56E-06	7.90E-06	1.658978	3.19E-06	0.000261	6.87E-05	7.82E-05	0.000592	1.57E-05	0.000112	7.25E-05	2.54E-05	0.148196	0
Los Angele	2025	HHDT	Aggregate		5 Electricity	2.774145	0	2.77414465	0	0	0	0	0	0	0	0	0	0	0	2.19E-07	7.66E-08	0	16.39204
Los Angele	2025	HHDT	Aggregate		5 Natural Ga	35.47055	35.47055417	0	0.00018501	2.39E-07	2.59E-07	0.185881	0.000428	3.79E-05	1.42E-05	0.000446	0.002524	0	2.94E-05	7.19E-06	2.52E-06	0.021485	0
Los Angele	2025	LHDT2	Aggregate		5 Gasoline	178.8715	178.8714677	0	4.52E-05	6.77E-07	7.36E-07	0.342798	4.12E-06	2.75E-06	1.86E-05	2.71E-05	0.000381	3.39E-06	8.87E-06	1.79E-05	6.28E-06	0.036148	0
Los Angele	2025	LHDT2	Aggregate		5 Diesel	188.3145	188.3144655	0	0.000290363	1.26E-05	1.32E-05	0.280425	2.79E-06	4.42E-05	6.01E-05	6.84E-05	0.000181	2.66E-06	4.00E-05	1.89E-05	6.61E-06	0.02505	0
Los Angele	2025	LHDT2	Aggregate		5 Electricity	4.564164	0	4.56416417	0	0	0	0	0	0	0	0	0	0	2.29E-07	8.01E-08	0	8.577197	0
Los Angele	2025	MHDT	Aggregate		5 Gasoline	446.964	446.9640367	0	0.00032351	3.13E-06	3.40E-06	1.897299	3.25E-05	1.70E-05	0.000156	0.000227	0.001225	1.88E-05	2.22E-05	3.03E-05	1.06E-05	0.200068	0
Los Angele	2025	MHDT	Aggregate		5 Diesel	1509.811	1509.81051	0	0.006022281	6.62E-05	6.92E-05	3.994562	1.64E-05	0.000629	0.000352	0.000401	0.000858	3.78E-05	0.000354	0.000102	3.58E-05	0.356833	0
Los Angele	2025	MHDT	Aggregate		5 Electricity	18.36412	0	18.3641185	0	0	0	0	0	0	0	0	0	0	6.22E-07	2.18E-07	0	64.55561	0
Los Angele	2025	MHDT	Aggregate		5 Natural Ga	23.26257	23.26256995	0	1.88E-05	8.72E-08	9.48E-08	0.065808	9.85E-05	1.34E-05	1.41E-06	0.000101	0.000195	0	2.72E-05	1.58E-06	5.52E-07	0.007606	0
Los Angele	2030	HHDT	Aggregate		5 Gasoline	0.209379	0.209379104	0	1.27E-06	1.59E-09	1.73E-09	0.001019	1.34E-07	5.32E-08	6.23E-07	9.09E-07	1.30E-05	1.01E-08	1.04E-08	3.39E-08	1.19E-08	0.000107	0
Los Angele	2030	HHDT	Aggregate		5 Diesel	472.9713	472.9712761	0	0.005590031	6.63E-06	6.93E-06	1.492561	2.93E-06	0.000235	6.30E-05	7.17E-05	0.000527	1.41E-05	0.000113	7.45E-05	2.61E-05	0.13333	0
Los Angele	2030	HHDT	Aggregate		5 Electricity	22.12754	0	22.1275405	0	0	0	0	0	0	0	0	0	0	0	1.88E-06	6.58E-07	0	130.7486
Los Angele	2030	HHDT	Aggregate		5 Natural Ga	38.00477	38.00476798	0	0.000127451	2.40E-07	2.61E-07	0.189494	0.00034	3.86E-05	9.60E-06	0.000353	0.002348	0	3.16E-05	7.75E-06	2.71E-06	0.021903	0
Los Angele	2030	LHDT2	Aggregate		5 Gasoline	155.1169	155.1168836	0	2.07E-05	4.42E-07	4.80E-07	0.27675	1.68E-06	1.37E-06	7.00E-06	1.02E-05	0.000257	2.74E-06	7.69E-06	1.56E-05	5.45E-06	0.029183	0
Los Angele	2030	LHDT2	Aggregate		5 Diesel	199.8372	199.8371551	0	0.000211418	1.04E-05	1.09E-05	0.287929	2.30E-06	4.54E-05	4.95E-05	5.63E-05	0.000156	2.73E-06	4.54E-05	2.00E-05	7.02E-06	0.025721	0
Los Angele	2030	LHDT2	Aggregate		5 Electricity	36.86926	0	36.8692596	0	0	0	0	0	0	0	0	0	0	0	1.85E-06	6.47E-07	0	69.28648
Los Angele	2030	MHDT	Aggregate		5 Gasoline	431.0564	431.0564263	0	0.000161169	3.15E-06	3.43E-06	1.741498	1.66E-05	1.02E-05	7.47E-05	0.000109	0.000511	1.72E-05	2.14E-05	2.92E-05	1.02E-05	0.183639	0
Los Angele	2030	MHDT	Aggregate		5 Diesel	1694.894	1694.894106	0	0.005121081	3.09E-05	3.22E-05	4.330659	1.03E-05	0.000682	0.000223	0.000253	0.000707	4.10E-05	0.000405	0.000115	4.02E-05	0.386856	0
Los Angele	2030	MHDT	Aggregate		5 Electricity	216.7769	0	216.776872	0	0	0	0	0	0	0	0	0	0	0	7.35E-06	2.57E-06	0	762.0383
Los Angele	2030	MHDT	Aggregate		5 Natural Ga	29.39157	29.39156701	0	1.78E-05	1.24E-07	1.35E-07	0.081491	0.000123	1.66E-05	1.75E-06	0.000125	0.000259	0	3.43E-05	1.99E-06	6.97E-07	0.009419	0
Los Angele	2035	HHDT	Aggregate		5 Gasoline	0.177591	0.177591189	0	9.08E-07	1.35E-09	1.46E-09	0.000805	1.03E-07	4.10E-08	4.57E-07	6.67E-07	1.15E-05	7.95E-09	8.81E-09	2.86E-08	1.00E-08	8.48E-05	0
Los Angele	2035	HHDT	Aggregate		5 Diesel	534.3625	534.3625244	0	0.006078723	6.50E-06	6.79E-06	1.546982	3.09E-06	0.000244	6.66E-05	7.58E-05	0.000551	1.46E-05	0.000129	8.65E-05	3.03E-05	0.138191	0
Los Angele	2035	HHDT	Aggregate		5 Electricity	64.17767	0	64.177673	0	0	0	0	0	0	0	0	0	0	0	5.49E-06	1.92E-06	0	379.217
Los Angele	2035	HHDT	Aggregate		5 Natural Ga	38.30881	38.30880601	0	8.63E-05	2.49E-07	2.71E-07	0.182223	0.000276	3.71E-05	7.10E-06	0.000286	0.002049	0	3.29E-05	7.72E-06	2.70E-06	0.021062	0
Los Angele	2035	LHDT2	Aggregate		5 Gasoline	132.3459	132.3458791	0	1.02E-05	3.20E-07	3.48E-07	0.225976	7.95E-07	7.40E-07	3.01E-06	4.39E-06	0.000204	2.23E-06	6.56E-06	1.33E-05	4.65E-06	0.023829	0
Los Angele	2035	LHDT2	Aggregate		5 Diesel	189.965	189.9649773	0	0.000167002	9.08E-06	9.50E-06	0.269503	1.97E-06	4.25E-05	4.24E-05	4.83E-05	0.000144	2.55E-06	4.43E-05	1.91E-05	6.67E-06	0.024075	0
Los Angele	2035	LHDT2	Aggregate		5 Electricity	99.95789	0	99.9578926	0	0	0	0	0	0	0	0	0	0	0	5.01E-06	1.75E-06	0	187.8457
Los Angele	2035	MHDT	Aggregate		5 Gasoline	333.1529	333.1528722	0	8.07E-05	2.52E-06	2.74E-06	1.29527	8.85E-06	6.11E-06	3.70E-05	5.40E-05	0.00023	1.28E-05	1.65E-05	2.26E-05	7.90E-06	0.136585	0
Los Angele	2035	MHDT	Aggregate		5 Diesel	1546.773	1546.772754	0	0.003836779	1.40E-05	1.47E-05	3.814825	6.78E-06	0.000601	0.000146	0.000166	0.000537	3.61E-05	0.000373	0.000105	3.67E-05	0.340777	0
Los Angele	2035	MHDT	Aggregate		5 Electricity	675.3738	0	675.373794	0	0	0	0	0	0	0	0	0	0	0	2.29E-05	8.01E-06	0	2374.15
Los Angele	2035	MHDT	Aggregate		5 Natural Ga	28.59036	28.59035889	0	1.36E-05	1.29E-07	1.40E-07	0.078262	0.000118	1.60E-05	1.69E-06	0.000121	0.00026	0	3.34E-05	1.94E-06	6.78E-07	0.009046	0

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2025, 2030, 2035

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for Combustion VMT and Electric VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Gasoline and Diesel Fuel Consumption, 1000 diesel equivalent gallons/day for Natural Gas Fuel Consumption,

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Cor	NOx_RUNE	PM2.5_RUNE	PM10_RUNE	ROG_RUNE	TOG_RUNE	CO_RUNE	SOx_RUNE	
Los Angeles	2025	HHDT	Aggregate	Aggregate	Gasoline	38.0097	2730.114768	2730.114768		0	760.4981	0	0.019058	4.28E-06	4.66E-06	0.00216	0.003152	0.117639	6.13E-05
Los Angeles	2025	HHDT	Aggregate	Aggregate	Diesel	53941.62	6714617.667	6714617.667		0	839109.6	0	13.02351	0.170871	0.178597	0.096979	0.110403	0.564232	0.109328
Los Angeles	2025	HHDT	Aggregate	Aggregate	Electricity	350.9298	38109.97971		0	38109.97971	4793.746	67847.24	0	0	0	0	0	0	0
Los Angeles	2025	HHDT	Aggregate	Aggregate	Natural Gas	5971.193	376036.48	376036.48		0	38108.23	0	0.316923	0.000887	0.000965	0.014303	0.566552	3.313354	0
Los Angeles	2025	LHDT2	Aggregate	Aggregate	Gasoline	18894.49	706862.803	706862.803		0	281499.8	0	0.113436	0.000756	0.000823	0.012828	0.018719	0.597579	0.005396
Los Angeles	2025	LHDT2	Aggregate	Aggregate	Diesel	26698.08	1155746.821	1155746.821		0	335828.2	0	1.119084	0.023389	0.024447	0.106957	0.121764	0.253863	0.006995
Los Angeles	2025	LHDT2	Aggregate	Aggregate	Electricity	363.0687	24101.85724		0	24101.85724	4814.662	13474.92	0	0	0	0	0	0	0
Los Angeles	2025	MHDT	Aggregate	Aggregate	Gasoline	14350.97	779405.2776	779405.2776		0	287134.2	0	0.318336	0.000811	0.000882	0.041463	0.060503	1.064737	0.013793
Los Angeles	2025	MHDT	Aggregate	Aggregate	Diesel	60424.47	2523668.137	2523668.137		0	741487.1	0	2.682496	0.029354	0.030681	0.051505	0.058635	0.225175	0.028537
Los Angeles	2025	MHDT	Aggregate	Aggregate	Electricity	556.2218	31387.25683		0	31387.25683	7513.091	32815.94	0	0	0	0	0	0	0
Los Angeles	2025	MHDT	Aggregate	Aggregate	Natural Gas	931.9858	43776.65045	43776.65045		0	7951.721	0	0.005082	4.23E-05	4.61E-05	0.00037	0.026446	0.11109	0
Los Angeles	2030	HHDT	Aggregate	Aggregate	Gasoline	19.94995	2049.507874	2049.507874		0	399.1585	0	0.006701	2.12E-06	2.30E-06	0.00083	0.001212	0.061219	4.12E-05
Los Angeles	2030	HHDT	Aggregate	Aggregate	Diesel	58321.17	7155713.629	7155713.629		0	916241.1	0	11.88681	0.181362	0.189562	0.091219	0.103846	0.487753	0.108048
Los Angeles	2030	HHDT	Aggregate	Aggregate	Electricity	2944.131	318047.6552		0	318047.6552	39052.91	567397.6	0	0	0	0	0	0	0
Los Angeles	2030	HHDT	Aggregate	Aggregate	Natural Gas	6835.861	416324.6973	416324.6973		0	44448.51	0	0.224048	0.000787	0.000856	0.010379	0.474348	3.087217	0
Los Angeles	2030	LHDT2	Aggregate	Aggregate	Gasoline	18044.54	659437.4029	659437.4029		0	268836.8	0	0.056266	0.000681	0.00074	0.004869	0.007104	0.4158	0.004638
Los Angeles	2030	LHDT2	Aggregate	Aggregate	Diesel	32680.47	1318877.665	1318877.665		0	411079.2	0	0.785314	0.021779	0.022764	0.097894	0.111446	0.21606	0.007769
Los Angeles	2030	LHDT2	Aggregate	Aggregate	Electricity	3696.827	209303.9957		0	209303.9957	49025.09	117182.5	0	0	0	0	0	0	0
Los Angeles	2030	MHDT	Aggregate	Aggregate	Gasoline	12498.97	660270.4024	660270.4024		0	250079.4	0	0.136335	0.000711	0.000773	0.016895	0.024653	0.402607	0.011132
Los Angeles	2030	MHDT	Aggregate	Aggregate	Diesel	62375.55	2470045.064	2470045.064		0	768388	0	1.67366	0.017192	0.01797	0.027907	0.03177	0.151292	0.027247
Los Angeles	2030	MHDT	Aggregate	Aggregate	Electricity	5963.171	319969.593		0	319969.593	79752.56	334996	0	0	0	0	0	0	0
Los Angeles	2030	MHDT	Aggregate	Aggregate	Natural Gas	1127.766	48315.67128	48315.67128		0	9672.413	0	0.004605	5.21E-05	5.66E-05	0.000421	0.030039	0.118119	0
Los Angeles	2035	HHDT	Aggregate	Aggregate	Gasoline	14.08205	1654.167326	1654.167326		0	281.7536	0	0.004558	1.71E-06	1.85E-06	0.000578	0.000843	0.050955	3.10E-05
Los Angeles	2035	HHDT	Aggregate	Aggregate	Diesel	60816.22	7892126.965	7892126.965		0	972801.7	0	11.6965	0.195915	0.204774	0.092536	0.105345	0.460309	0.111481
Los Angeles	2035	HHDT	Aggregate	Aggregate	Electricity	8354.394	891902.4175		0	891902.4175	107058.1	1593068	0	0	0	0	0	0	0
Los Angeles	2035	HHDT	Aggregate	Aggregate	Natural Gas	6932.192	424134.5465	424134.5465		0	46700.65	0	0.164845	0.00075	0.000815	0.008072	0.399526	2.736372	0
Los Angeles	2035	LHDT2	Aggregate	Aggregate	Gasoline	16193.14	562195.4697	562195.4697		0	241253.6	0	0.02853	0.000579	0.00063	0.001948	0.002842	0.321133	0.003751
Los Angeles	2035	LHDT2	Aggregate	Aggregate	Diesel	34224.45	1259053.114	1259053.114		0	430500.5	0	0.560894	0.019764	0.020657	0.085779	0.097653	0.184682	0.007309
Los Angeles	2035	LHDT2	Aggregate	Aggregate	Electricity	11238.55	569607.4057		0	569607.4057	148928.3	319118.5	0	0	0	0	0	0	0
Los Angeles	2035	MHDT	Aggregate	Aggregate	Gasoline	10347.02	512982.0891	512982.0891		0	207023.2	0	0.068342	0.00057	0.00062	0.008357	0.012194	0.183306	0.008323
Los Angeles	2035	MHDT	Aggregate	Aggregate	Diesel	58477.16	2265501.905	2265501.905		0	721798.2	0	1.080518	0.011469	0.011987	0.017574	0.020007	0.113132	0.024248
Los Angeles	2035	MHDT	Aggregate	Aggregate	Electricity	19492.64	992180.753		0	992180.753	259847.1	1039230	0	0	0	0	0	0	0
Los Angeles	2035	MHDT	Aggregate	Aggregate	Natural Gas	1163.646	46931.84853	46931.84853		0	10116.28	0	0.003882	5.37E-05	5.85E-05	0.000416	0.029697	0.112088	0

[illegible]

speed_time	pollutant	emission_rate
	PM2_5	0.011924624
	PM10	0.012503741
	CH4	0.969494713
	CO2	5036.124359
	ROG	2.215838472
	TOG	3.393505005
	PM	0.012694565
	SOx	0.04459291
	NOx	24.48198842
	CO	35.22245154
	HC	2.626377357
	PM2_5	0.022668636
	PM10	0.023734907
	CH4	0.820950475
	CO2	5793.472216
	ROG	1.007051048
	TOG	2.048906915
	PM	0.023997445
	SOx	0.053280007
	NOx	25.24975278
	CO	27.94992342
	HC	1.824481422
	PM2_5	0.559137082
	PM10	0.58441878
	CH4	0.636621951
	CO2	5446.410997
	ROG	6.228053088
	TOG	8.355114402
	PM	0.587946458
	SOx	0.053445487
	NOx	27.40180138
	CO	62.31196154
	HC	7.118612161

Source: EMFAC2025 (v2.0.0) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for Combustion VMT and Electric VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Gasoline and Diesel Fuel Consumption, 1000 diesel equivalent gallons/day for Natural Gas Fuel Consumption, kWh/day for Energy Consumption, kg/day for Hydrogen Consumption

Region	Calendar Y	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Consum	Hydrogen (g/trip)	TOG_RUNEX (g/mi)	TOG_IDLEX (g/trip)	TOG_STREX (g/trip)	TOG_DIURN (g/trip)	TOG_HOTSOAK (g/trip)	TOG_RUNLOSS (g/trip)
South Coast	2030	HHDT	Aggregate	Aggregate	Gasoline	97.8170677	3890.435607	3890.435607	0	1957.12389	0	0	0.004426541	0	9.66543E-08	0.000766913	1.89E-04	0.001684713
South Coast	2030	HHDT	Aggregate	Aggregate	Diesel	97546.6065	13840328.35	13840328.35	0	1673700.7	0	0	0.187862868	0.819596119	0	0	0	0
South Coast	2030	HHDT	Aggregate	Aggregate	Electricity	1734.69077	138865.3125	138865.3125	138865.3125	14835.6087	246834.3194	0	0	0	0	0	0	0
South Coast	2030	HHDT	Aggregate	Aggregate	Natural Ga	9675.65121	815548.1381	815548.1381	0	78100.6888	0	0	1.077113737	0.268126066	0	0	0	0
South Coast	2030	HHDT	Aggregate	Aggregate	Fuel Cell El	162.645476	15119.3603	15119.3603	0	15119.3603	1615.82805	0	1842.143	0	0	0	0	0
South Coast	2030	LDA	Aggregate	Aggregate	Gasoline	4086227.94	119173044.6	119173044.6	0	17716812.2	0	0	4.542392617	0	4.503459966	9.78188333	3.883479919	5.066692678
South Coast	2030	LDA	Aggregate	Aggregate	Diesel	5505.97014	123404.2498	123404.2498	0	22424.4584	0	0	0.007623991	0	0	0	0	0
South Coast	2030	LDA	Aggregate	Aggregate	Electricity	598104.198	21793878.61	21793878.61	21793878.61	2893945.34	7243851.032	0	0	0	0	0	0	0
South Coast	2030	LDA	Aggregate	Aggregate	Plug-in Hyt	459764.373	17577116.62	6266739.225	11310377.4	1468007.72	4151619.468	0	0.038410808	0	0.201734135	0.195889372	0.062143122	0.055505757
South Coast	2030	LDA	Aggregate	Aggregate	Fuel Cell El	2674.93293	111374.929	111374.929	0	111374.929	13415.2612	0	1704.805	0	0	0	0	0
South Coast	2030	LDT1	Aggregate	Aggregate	Gasoline	372657.734	10408255.6	10408255.6	0	1498382.88	0	0	0.987647378	0	0.883272092	1.644569953	0.519646401	1.015777728
South Coast	2030	LDT1	Aggregate	Aggregate	Diesel	10.5504544	230.3897968	230.3897968	0	29.8961656	0	0	0.000101015	0	0	0	0.00E+00	0
South Coast	2030	LDT1	Aggregate	Aggregate	Electricity	42656.4313	1800625.694	1800625.694	1800625.694	210129.049	673051.731	0	0	0	0	0	0	0
South Coast	2030	LDT1	Aggregate	Aggregate	Plug-in Hyt	31760.9019	136781.525	568159.4656	793622.0593	116590.909	340156.7371	0	0.003493906	0	0.018631879	0.010220019	0.003298	0.002824245
South Coast	2030	LDT1	Aggregate	Aggregate	Fuel Cell El	132.459147	6667.62145	6667.62145	0	6667.62145	680.087689	0	102.0606	0	0	0	0	0
South Coast	2030	LDT2	Aggregate	Aggregate	Gasoline	2550148.73	87015035.57	87015035.57	0	12199231	0	0	2.413732498	0	3.315867306	4.191236116	1.279193245	2.758493382
South Coast	2030	LDT2	Aggregate	Aggregate	Diesel	4411.18026	145399.0363	145399.0363	0	21220.7185	0	0	0.005238573	0	0	0	0	0
South Coast	2030	LDT2	Aggregate	Aggregate	Electricity	36274.085	1573971.704	1573971.704	1573971.704	189690.832	653505.6816	0	0	0	0	0	0	0
South Coast	2030	LDT2	Aggregate	Aggregate	Plug-in Hyt	279963.655	11771042.13	4993832.226	6777209.902	1066323.43	3314354.572	0	0.030673276	0	0.173218819	0.092036114	0.029752733	0.026917874
South Coast	2030	LDT2	Aggregate	Aggregate	Fuel Cell El	401.877389	19923.26353	19923.26353	0	19923.26353	2168.91479	0	304.9635	0	0	0	0	0
South Coast	2030	LHDT1	Aggregate	Aggregate	Gasoline	186762.677	6150042.136	6150042.136	0	2685630.37	0	0	0.141607459	0.106828841	0.539267501	0.50429474	0.11485936	0.646957923
South Coast	2030	LHDT1	Aggregate	Aggregate	Diesel	92941.5895	3194389.742	3194389.742	0	1128393.61	0	0	0.256223395	0.012356007	0	0	0	0
South Coast	2030	LHDT1	Aggregate	Aggregate	Electricity	4213.2649	209661.998	209661.998	209661.998	55706.9283	117619.6006	0	0	0	0	0	0	0
South Coast	2030	LHDT1	Aggregate	Aggregate	Fuel Cell El	323.561612	16996.29297	16996.29297	0	16996.29297	4278.06557	0	660.6985	0	0	0	0	0
South Coast	2030	LHDT2	Aggregate	Aggregate	Gasoline	41016.9253	1507226.588	1507226.588	0	606068.168	0	0	0.02951475	0.022663447	0.151583413	0.088622916	0.020050374	0.127952908
South Coast	2030	LHDT2	Aggregate	Aggregate	Diesel	100325.394	4265451.164	4265451.164	0	1364349.16	0	0	0.29213821	0.014939741	0	0	0	0
South Coast	2030	LHDT2	Aggregate	Aggregate	Electricity	4172.66743	215434.5308	215434.5308	0	215434.5308	61797.1365	120816.9111	0	0	0	0	0	0
South Coast	2030	LHDT2	Aggregate	Aggregate	Fuel Cell El	323.096169	17701.10603	17701.10603	0	17701.10603	4785.04898	0	688.285	0	0	0	0	0
South Coast	2030	MCV	Aggregate	Aggregate	Gasoline	266193.114	1537927.944	1537927.944	0	511443.611	0	0	2.32984169	0	0.609382818	1.068521144	2.110659403	2.097397712
South Coast	2030	MDV	Aggregate	Aggregate	Gasoline	1556681.85	52210446.86	52210446.86	0	7089898.14	0	0	2.108932999	0	2.680479448	3.109952736	0.818648027	2.104918812
South Coast	2030	MDV	Aggregate	Aggregate	Diesel	56751.8637	2199267.156	2199267.156	0	275360.552	0	0	0.027505315	0	0	0	0	0
South Coast	2030	MDV	Aggregate	Aggregate	Electricity	129633.31	5606115.096	5606115.096	5606115.096	652717.556	2779356.602	0	0	0	0	0	0	0
South Coast	2030	MDV	Aggregate	Aggregate	Plug-in Hyt	63577.095	2609831.458	1133935.085	1475896.373	240590.354	901810.1076	0	0.00695336	0	0.039335334	0.022893607	0.007412604	0.007071598
South Coast	2030	MDV	Aggregate	Aggregate	Fuel Cell El	4452.54312	224284.8187	224284.8187	0	224284.8187	23177.1308	0	3433.106	0	0	0	0	0
South Coast	2030	MH	Aggregate	Aggregate	Gasoline	31825.328	287103.4442	287103.4442	0	3392.20546	0	0	0.010334698	0	0.000533713	0.108873951	0.025876622	0.000655782
South Coast	2030	MH	Aggregate	Aggregate	Diesel	13215.7534	117745.2586	117745.2586	0	1408.08056	0	0	0.007448769	0	0	0	0	0
South Coast	2030	MHDT	Aggregate	Aggregate	Gasoline	30934.4837	1325934.753	1325934.753	0	618937.15	0	0	0.052944595	0.05022215	0.158486252	0.084945571	0.018598963	0.156833176
South Coast	2030	MHDT	Aggregate	Aggregate	Diesel	121919.971	4313763.904	4313763.904	0	1525298.89	0	0	0.037027187	0.027297552	0	0	0	0
South Coast	2030	MHDT	Aggregate	Aggregate	Electricity	2844.93856	186839.9127	186839.9127	186839.9127	45517.9325	232852.577	0	0	0	0	0	0	0
South Coast	2030	MHDT	Aggregate	Aggregate	Natural Ga	1059.41469	42782.9819	42782.9819	0	10881.5952	0	0	0.025915922	0.018829178	0	0	0.00E+00	0.00E+00
South Coast	2030	MHDT	Aggregate	Aggregate	Fuel Cell El	223.000968	15584.24053	15584.24053	0	3685.26492	0	1354.6	0	0	0	0	0	0
South Coast	2030	OBUS	Aggregate	Aggregate	Gasoline	4283.6328	105069.7672	105069.7672	0	38139.5817	0	0	0.007395454	0.002286392	0.008548998	0.021762635	4.38E-03	0.009911766
South Coast	2030	OBUS	Aggregate	Aggregate	Diesel	2743.69933	151556.2228	151556.2228	0	32376.6225	0	0	0.012584745	0.003058754	0	0	0	0.00E+00
South Coast	2030	OBUS	Aggregate	Aggregate	Electricity	618.741071	41607.82808	41607.82808	41607.82808	5507.00335	51979.13161	0	0	0	0	0	0	0
South Coast	2030	OBUS	Aggregate	Aggregate	Natural Ga	677.03377	31276.06965	31276.06965	0	6025.60055	0	0	0.003200376	0	0	0	0	0.00E+00
South Coast	2030	OBUS	Aggregate	Aggregate	Fuel Cell El	34.9397342	2506.933838	2506.933838	0	310.982227	0	220.6483	0	0	0	0	0	0
South Coast	2030	SBUS	Aggregate	Aggregate	Gasoline	2718.82395	101265.6954	101265.6954	0	10867.2958	0	0	0.007549335	0.046411577	0.004751682	0.007253176	0.001457696	0.004874897
South Coast	2030	SBUS	Aggregate	Aggregate	Diesel	2054.97471	39806.40203	39806.40203	0	29756.0337	0	0	0.00552253	0.000407024	0	0	0	0.00E+00
South Coast	2030	SBUS	Aggregate	Aggregate	Electricity	279.642176	9651.859857	9651.859857	9651.859857	2176.19317	13264.27719	0	0	0	0	0	0	0
South Coast	2030	SBUS	Aggregate	Aggregate	Natural Ga	3386.87431	76449.97211	76449.97211	0	49041.9401	0	0	0.376431939	0.055089335	0	0	0	0.00E+00
South Coast	2030	SBUS	Aggregate	Aggregate	Fuel Cell El	16.4224799	608.6375535	608.6375535	0	78.9018731	0	60.59507	0	0	0	0	0	0
South Coast	2030	UBUS	Aggregate	Aggregate	Gasoline	798.329691	50619.30939	50619.30939	0	3193.31876	0	0	0.001290586	0	0.001912634	0.000328851	9.18E-05	0.000329619
South Coast	2030	UBUS	Aggregate	Aggregate	Diesel	2.42507886	203.8953776	203.8953776	0	9.70031546	0	0	2.61802E-05	0	0	0	0.00E+00	0
South Coast	2030	UBUS	Aggregate	Aggregate	Electricity	1717.01367	162173.6535	162173.6535	162173.6535	8688.05468	339362.381	0	0	0	0	0	0	0
South Coast	2030	UBUS	Aggregate	Aggregate	Natural Ga	3792.56951	324318.9236	324318.9236	0	15170.278	0	0	1.261663401	0	0	0	0	0
South Coast	2030	UBUS	Aggregate	Aggregate	Fuel Cell El	143.054883	14122.41151	14122.41151	14122.41151	572.219532	0	2101.976	0	0	0	0	0	0

Source: EMFAC2025 (v2.0.0) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for Combustion VMT and Electric VMT, trip:

Region	Calendar Y	Vehicle Category	ROG RUNEX (g/mi) ROG_RUNEX	ROG IDLEX (g/trip) ROG_IDLEX	ROG STREX (g/trip) ROG_STREX	ROG DIURN (g/trip) ROG_DIURN	ROG HOTSOAK (g/trip) ROG_HOTSOAK	ROG RUNLOSS (g/trip) ROG_RUNLOSS	NOx RUNEX (g/mi) NOx_RUNEX	NOx IDLEX (g/trip) NOx_IDLEX	NOx STREX (g/trip) NOx_STREX	CO RUNEX (g/mi) CO_RUNEX	CO IDLEX (g/trip) CO_IDLEX	CO STREX (g/trip) CO_STREX	SOx RUNEX (g/mi) SOx_RUNEX
South Coast	2030	HHDT	3.03E-03	0.00E+00	8.83E-08	0.000766913	0.00018862	1.68E-03	0.0255346	0.00E+00	1.19E-03	1.42E-01	0	0.007195339	3.92944E-05
South Coast	2030	HHDT	0.16502014	0.719939325	0	0	0	0	9.551032495	2.764605811	2.938133455	0.722506964	10.61478507	0	0.070286195
South Coast	2030	HHDT	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast	2030	HHDT	0.015079592	0.003753765	0	0	0	0	0.522857416	0.111699496	0	5.426712727	0.88215964	0	0
South Coast	2030	HHDT	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast	2030	LDA	3.5114239	0	4.11394163	9.78188333	3.883479919	5.066692678	6.565421556	0	2.707522719	365.3196122	0	53.17012718	0.170434345
South Coast	2030	LDA	0.006696914	0	0	0	0	0	0.029893855	0	0	0.093121051	0	0	0.000121184
South Coast	2030	LDA	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast	2030	LDA	0.026323239	0	0.184253267	0.195889372	0.062143122	0.055505757	0.049458041	0	0.119576697	3.593203334	0	1.541506171	0.009124927
South Coast	2030	LDA	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast	2030	LDT1	0.710059711	0	0.806794971	1.644569953	0.519646401	1.015777728	2.436126171	0	0.524567676	47.75490818	0	8.653303311	0.018206176
South Coast	2030	LDT1	8.87312E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00034701	0	0.00E+00	6.24E-04	0.00E+00	0.00E+00	3.97114E-07
South Coast	2030	LDT1	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast	2030	LDT1	0.002394402	0	0.017017371	0.010220019	0.003298	0.002824245	0.004492209	0	0.011500322	0.326378798	0	0.143612023	0.000828502
South Coast	2030	LDT1	0	0	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0.00E+00	0.00E+00	0.00E+00	0
South Coast	2030	LDT2	1.730366391	0	3.028684309	4.191236116	1.279193245	2.758493382	5.288190624	0	2.303202305	259.9282875	0	36.93434304	0.147171923
South Coast	2030	LDT2	0.004601563	0	0	0	0	0	0.008584761	0	0	0.047448297	0	0	0.00017688
South Coast	2030	LDT2	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast	2030	LDT2	0.021020645	0	0.158208888	0.092036114	0.029752733	0.026917874	0.039458158	0	0.107337272	2.866379653	0	1.33631664	0.007277963
South Coast	2030	LDT2	0	0	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0	0.00E+00	0	0
South Coast	2030	LHDT1	0.097044742	0.073210672	0.492538354	0.50429474	0.11485936	0.646957923	0.829931108	0.00638291	1.506397295	7.280410017	0.748800258	6.321111257	0.016289286
South Coast	2030	LHDT1	0.22506663	0.010853517	0	0	0	0	3.150983535	0.168241631	0	1.057949407	0.089959547	0	0.005438319
South Coast	2030	LHDT1	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast	2030	LHDT1	0	0	0.00E+00	0	0	0	0	0	0	0	0	0	0
South Coast	2030	LHDT2	0.020226698	0.015531444	0.138448255	0.088622916	0.020050374	0.127952908	0.188786422	0.001353648	0.378858192	2.179224925	0.184425243	1.784955726	0.004304834
South Coast	2030	LHDT2	0.256614204	0.013123068	0	0	0	0	1.593390754	0.129313065	0	0.481136711	0.108770762	0	0.008185072
South Coast	2030	LHDT2	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast	2030	LHDT2	0	0	0.00E+00	0	0	0	0	0	0	0	0	0	0
South Coast	2030	MCY	1.885671958	0	0.56001414	1.068521144	2.110659403	2.097397712	0.841016715	0	0.051303764	18.62592368	0	3.996352957	0.001489032
South Coast	2030	MDV	1.478981797	0	2.448269811	3.109952736	0.818648027	2.104918812	5.199566279	0	1.90112857	177.5925644	0	24.16786019	0.108687557
South Coast	2030	MDV	0.024160669	0	0	0	0	0	0.060373725	0	0	0.652414607	0	0	0.003252259
South Coast	2030	MDV	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast	2030	MDV	0.004765194	0	0.035926809	0.022893607	0.007412604	0.007071598	0.008951217	0	0.024411712	0.650060473	0	0.303560939	0.001851237
South Coast	2030	MDV	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast	2030	MH	7.08E-03	0	0.000487465	0.108873951	0.025876622	0.000655782	0.074864365	0.00E+00	0.001621405	0.15220483	0	0.010558533	0.002400106
South Coast	2030	MH	0.006542999	0	0	0	0	0	0.345924169	0	0	0.025233483	0	0	0.00043068
South Coast	2030	MHDT	0.036283361	0.034417647	0.144752943	0.084945571	0.018598963	0.156833176	0.289398618	0.002918541	0.263621767	0.908573274	0.49207289	2.960034428	0.009514909
South Coast	2030	MHDT	0.032524957	0.023978372	0	0	0	0	1.437042551	0.702266754	1.551984684	0.198919186	0.977479313	0	0.016285367
South Coast	2030	MHDT	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast	2030	MHDT	0.000362823	2.64E-04	0	0	0	0.00E+00	3.91E-03	0.007140039	0.00E+00	0.098584834	0.041643242	0	0
South Coast	2030	MHDT	0	0	0.00E+00	0	0	0	0	0	0	0	0	0	0
South Coast	2030	OBUS	5.07E-03	0.001566883	0.007808201	0.021762635	0.004378205	0.009911766	0.046548169	1.35E-04	0.016393947	0.129495676	0.012126451	0.152759307	0.000820115
South Coast	2030	OBUS	0.011054534	0.002686832	0	0	0	0	2.30E-01	0.017900452	0.042860887	0.03928409	0.041771765	0	0.000709826
South Coast	2030	OBUS	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast	2030	OBUS	0	4.48E-05	0	0	0	0	0.00E+00	0.001145257	0.00E+00	0	0.005601474	0	0
South Coast	2030	OBUS	0	0	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0.00E+00	0.00E+00	0.00E+00	0
South Coast	2030	SBUS	5.17E-03	0.031806231	0.004339935	0.007253176	0.001457696	0.004874897	0.03415143	2.64E-03	0.00772449	0.1034668	0.245916038	0.097708595	0.000396815
South Coast	2030	SBUS	0.004851031	0.000357533	0	0	0	0	2.29E-01	0.05471523	0.012006235	0.012521536	0.009274515	0	0.000179586
South Coast	2030	SBUS	0	0	0.00E+00	0.00E+00	0	0	0	0	0	0.00E+00	0	0	0
South Coast	2030	SBUS	0.005270047	0.000771251	0	0	0	0	3.55E-02	0.019436924	0	1.237754258	0.090437636	0	0
South Coast	2030	SBUS	0	0	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0.00E+00	0.00E+00	0.00E+00	0
South Coast	2030	UBUS	8.84E-04	0.00E+00	0.001746899	0.000328851	9.18365E-05	0.000329619	0.011565807	0.00E+00	0.002808648	0.039547557	0	0.026184738	0.000905618
South Coast	2030	UBUS	2.29969E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000178829	0	0.00E+00	3.00E-05	0.00E+00	0.00E+00	3.75019E-06
South Coast	2030	UBUS	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast	2030	UBUS	0.018022676	0	0	0	0	0	0.089560634	0	0	14.58329165	0	0	0
South Coast	2030	UBUS	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: EMFAC2025 (v2.0.0) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for Combustion VMT and Electric VMT, trip:

Region	Calendar Y	Vehicle Category	SOx IDLEX (g/trip)	SOx STREX (g/trip)	PM2.5 RUNEX (g/mi)	PM2.5 IDLEX (g/trip)	PM2.5 STREX (g/trip)	PM2.5 PMTW (g/mi)	PM2.5 PMBW (g/mi)	PM10 RUNEX (g/mi)	PM10 IDLEX (g/trip)	PM10 STREX (g/trip)	PM10 PMTW (g/mi)	PM10 PMBW (g/mi)	CO ₂ RUNEX (g/mi)
			SOx_IDLEX	SOx_STREX	PM2.5_RUNEX	PM2.5_IDLEX	PM2.5_STREX	PM2.5_PMTW	PM2.5_PMBW	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_PMTW	PM10_PMBW	CO2_RUNEX
South Coast	2030	HHDT	0	4.90644E-07	5.07884E-06	0	1.67387E-06	2.14E-05	0.000140938	5.5237E-06	0	1.82E-06	8.57694E-05	0.000402681	9.152654064
South Coast	2030	HHDT	0.004943585	0	0.200408923	0.001796854	0	0.135009096	0.423486995	0.209470525	0.0018781	0	0.540036385	1.209962843	21403.55128
South Coast	2030	HHDT	0	0	0	0	0	0.001377403	0.002301635	0	0	0	0.005509611	0.006576101	0
South Coast	2030	HHDT	0	0	0.001163126	0.000310351	0	0.008090891	0.041814075	0.001265006	0.000337535	0	0.032363566	0.119468786	925.3969311
South Coast	2030	HHDT	0	0	0	0	0	0.000149973	0.000257533	0	0	0	0.000599892	0.000735807	0
South Coast	2030	LDA	0	0.005471802	0.317531089	0	0.033422921	0.26273159	0.329814799	0.344707604	0	0.036315891	1.05092636	0.942327998	39698.46275
South Coast	2030	LDA	0	0	0.002874725	0	0	0.00027206	0.000352604	0.003004708	0	0	0.001088239	0.001007439	36.87911377
South Coast	2030	LDA	0	0	0	0	0	0.055254369	0.021366177	0	0	0	0.221017478	0.06104622	0
South Coast	2030	LDA	0	0.000408842	0.011662379	0	0.001997968	0.044563545	0.02054087	0.012683902	0	0.002172973	0.178254181	0.0586882	2125.425882
South Coast	2030	LDA	0	0	0	0	0	0.000282371	0.000108751	0	0	0	0.001129483	0.000310718	0
South Coast	2030	LDT1	0	0.000597505	0.039453103	0	0.004357324	0.022946276	0.037613064	0.042855333	0	0.004736062	0.091785103	0.107465898	4240.678126
South Coast	2030	LDT1	0	0	5.48407E-05	0.00E+00	0	5.07923E-07	9.39E-07	5.73E-05	0	0	2.03E-06	2.68E-06	0.12085125
South Coast	2030	LDT1	0	0	0	0	0	0.004565155	0.001762785	0	0	0	0.018260621	0.00503653	0
South Coast	2030	LDT1	0	3.71374E-05	0.000893924	0	0.000131965	0.003452547	0.001598778	0.000972223	0	0.000143524	0.013810186	0.004567398	192.9789392
South Coast	2030	LDT1	0	0	0	0	0	1.69045E-05	6.49013E-06	0	0	0	6.76181E-05	1.85432E-05	0
South Coast	2030	LDT2	0	0.004503623	0.198329019	0	0.020311825	0.191835316	0.292911041	0.215578007	0	0.022083898	0.767341264	0.836888689	34280.05724
South Coast	2030	LDT2	0	0	0.000993931	0	0	0.00032055	0.000495589	0.001038872	0	0	0.0012822	0.001415968	53.82880231
South Coast	2030	LDT2	0	0	0	0	0	0.003990516	0.001538798	0	0	0	0.015962063	0.004396565	0
South Coast	2030	LDT2	0	0.000360089	0.008183792	0	0.001263632	0.029843312	0.013828868	0.008900662	0	0.001374315	0.119373246	0.039511051	1695.221251
South Coast	2030	LDT2	0	0	0	0	0	5.05118E-05	1.93929E-05	0	0	0	0.000202047	5.54083E-05	0
South Coast	2030	LHDT1	9.66049E-05	0.000302118	0.007097494	0	0.000584736	0.013558522	0.185073826	0.007719173	0	0.000635954	0.054234088	0.528782359	3794.185978
South Coast	2030	LHDT1	3.99182E-05	0	0.058901955	0.002605256	0	0.010563636	0.096129086	0.061565241	0.002723054	0	0.042254543	0.274654532	1655.009721
South Coast	2030	LHDT1	0	0	0	0	0	0.000462226	0.00315469	0	0	0	0.001848902	0.009013399	0
South Coast	2030	LHDT1	0	0	0	0	0	3.74704E-05	0.000255736	0	0	0	0.000149882	0.000730673	0
South Coast	2030	LHDT2	2.67806E-05	7.16853E-05	0.001672333	0	0.000114525	0.003322866	0.052916638	0.001818815	0.00E+00	0.000124556	0.013291463	0.151190395	1002.704433
South Coast	2030	LHDT2	7.2509E-05	0	0.051933446	0.003161726	0	0.014105565	0.149754084	0.054281646	0.003304685	0	0.056422261	0.427868811	2490.91182
South Coast	2030	LHDT2	0	0	0	0	0	0.000474952	0.003781804	0	0	0	0.001899807	0.010805154	0
South Coast	2030	LHDT2	0	0	0	0	0	3.90243E-05	0.000310731	0	0	0	0.000156097	0.000887802	0
South Coast	2030	MCY	0	9.60359E-05	0.004469018	0	0.00184377	0.001695275	0.007120157	0.004790951	0	0.001972128	0.006781101	0.020343304	346.833256
South Coast	2030	MDV	0	0.003246348	0.12518853	0	0.012675871	0.115104332	0.180162167	0.136099262	0.013783161	0	0.460417329	0.514749049	25316.07646
South Coast	2030	MDV	0	0	0.004444367	0	0	0.004848554	0.007170752	0.004645322	0	0	0.019394216	0.020487862	989.7397169
South Coast	2030	MDV	0	0	0	0	0	0.014213273	0.005483868	0	0	0	0.056853094	0.015668195	0
South Coast	2030	MDV	0	0.000100202	0.002021945	0	0.000313387	0.006616747	0.003070755	0.00219905	0	0.000340837	0.02646999	0.008773587	384.6148902
South Coast	2030	MDV	0	0	0	0	0	0.000568633	0.000218196	0	0	0	0.002274532	0.000623416	0
South Coast	2030	MH	0	4.88337E-07	0.000340856	0	1.24369E-06	9.49E-04	0.004777155	0.000370712	0	1.35263E-06	0.003797728	0.013649014	559.0452021
South Coast	2030	MH	0	0	0.007414927	0	0	0.000519168	0.001948524	0.007750197	0	0	0.002076671	0.005567212	131.0662657
South Coast	2030	MHDT	7.51524E-05	0.000123196	0.00143617	0	0.00031481	0.004384779	0.022107589	0.001561966	0	0.000342385	0.017539115	0.063164539	2216.26252
South Coast	2030	MHDT	0.000887765	0	0.017228814	0.000434211	0	0.014265332	0.071826828	0.018007824	0.000453844	0	0.057061329	0.205219508	4959.219745
South Coast	2030	MHDT	0	0	0	0	0	0.000617867	0.001558746	0	0	0	0.002471469	0.00445356	0
South Coast	2030	MHDT	0	0	4.55723E-05	2.14856E-05	0	0.00014148	0.000711774	4.9564E-05	2.33675E-05	0	0.000565922	0.00203364	36.00952617
South Coast	2030	MHDT	0	0	0	0	0	5.15361E-05	0.000129962	0	0	0	0.000206144	0.00037132	0
South Coast	2030	OBUS	3.40833E-06	5.57626E-06	9.31377E-05	0	1.07481E-05	0.000347459	0.001776506	0.000101296	0.00E+00	1.16895E-05	0.001389835	0.005075732	191.0254319
South Coast	2030	OBUS	2.43538E-05	0	0.002891457	2.05914E-05	0	0.000501186	0.003683984	0.003022196	2.15224E-05	0	0.002004746	0.010525669	216.1562798
South Coast	2030	OBUS	0	0	0	0	0	0.000137594	0.00035223	0	0	0	0.000550377	0.001006371	0
South Coast	2030	OBUS	0	0	0	2.96048E-06	0	0.000103428	0.000528202	0	3.21979E-06	0	0.000413712	0.001509149	0.00E+00
South Coast	2030	OBUS	0	0	0	0	0	8.29026E-06	2.12252E-05	0	0	0	3.31611E-05	0.06435E-05	0
South Coast	2030	SBUS	3.11064E-05	2.65176E-06	0.000150629	0	7.86112E-06	0.000223253	0.001830198	0.000163822	0	8.54968E-06	0.000893011	0.005229136	92.42826882
South Coast	2030	SBUS	1.68142E-05	0	0.000708083	2.55328E-05	0.00E+00	0.000131637	0.00071943	0.000740099	2.66872E-05	0	0.000526549	0.002055514	54.68762674
South Coast	2030	SBUS	0	0	0	0	0	2.45308E-05	8.72201E-05	0	0	0	9.81233E-05	0.0002492	0
South Coast	2030	SBUS	0	0	0.000347354	4.81586E-05	0	0.000252815	0.001381698	0.000377779	5.23768E-05	0	0.00101126	0.003947707	134.9072405
South Coast	2030	SBUS	0	0	0	0	0	1.38602E-06	5.50002E-06	0	0	0	5.54407E-06	1.57143E-05	0
South Coast	2030	UBUS	0	3.06533E-06	9.44179E-05	0	2.50272E-06	0.000146458	0.002009006	0.000102688	0	2.72194E-06	0.000585834	0.005740018	91.40790245
South Coast	2030	UBUS	0	0	1.36404E-06	0.00E+00	0	2.02281E-06	8.65E-06	1.43E-06	0	0	8.09E-06	2.47E-05	0.395640873
South Coast	2030	UBUS	0	0	0	0	0	0.001397982	0.003441243	0	0	0	0.005591927	0.009832122	0
South Coast	2030	UBUS	0	0	0.000204812	0	0	0.0026078	0.013720253	0.000214073	0	0	0.010431199	0.039200722	749.4265301
South Coast	2030	UBUS	0	0	0	0	0	0.000125588	0.00029967	0	0	0	0.000502352	0.000856201	0

Source: EMFAC2025 (v2.0.0) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for Combustion VMT and Electric VMT, trip:

Region	Calendar Y	Vehicle Category	CO ₂ IDLEX (g/trip)	CO ₂ STREX (g/trip)	CH ₄ RUNEX (g/mi)	CH ₄ IDLEX (g/trip)	CH ₄ STREX (g/trip)	N ₂ O RUNEX (g/mi)	N ₂ O IDLEX (g/trip)	N ₂ O STREX (g/trip)
			CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX
South Coast	2030	HHDT	0.00E+00	0.114283344	0.000588732	0	2.0815E-08	0.000830688	0	3.97458E-05
South Coast	2030	HHDT	1505.420554	0	0.007664758	0.033439317	0	6.081810163	0	0
South Coast	2030	HHDT	0	0	0	0	0	0	0	0
South Coast	2030	HHDT	93.93964806	0	1.770956385	0.347179796	0	0.349716076	0	0
South Coast	2030	HHDT	0	0	0	0	0	0	0	0
South Coast	2030	LDA	0	1274.520944	0.754356241	0	0.741315146	0.68157149	0	0.270377805
South Coast	2030	LDA	0	0	0.000311059	0	0	0.005812321	0	0
South Coast	2030	LDA	0	0	0	0	0	0	0	0
South Coast	2030	LDA	0	95.22961786	0.010532032	0	0.037710406	0.01325931	0	0.027812363
South Coast	2030	LDA	0	0	0	0	0	0	0	0
South Coast	2030	LDT1	0	139.1739788	0.157417935	0	0.126988924	0.165012761	0	0.03906875
South Coast	2030	LDT1	0	0.00E+00	4.12139E-06	0	0	1.90E-05	0	0
South Coast	2030	LDT1	0	0	0	0	0	0	0	0
South Coast	2030	LDT1	0	8.650235842	0.000957548	0	0.003414332	0.00120361	0	0.002165873
South Coast	2030	LDT1	0	0	0	0	0	0	0	0
South Coast	2030	LDT2	0	1049.00759	0.467880821	0	0.544579037	0.530644821	0	0.203024794
South Coast	2030	LDT2	0	0	0.000213734	0	0	0.008483671	0	0
South Coast	2030	LDT2	0	0	0	0	0	0	0	0
South Coast	2030	LDT2	0	83.87379813	0.008407846	0	0.031678894	0.010574401	0	0.022093058
South Coast	2030	LDT2	0	0	0	0	0	0	0	0
South Coast	2030	LHDT1	22.50171432	70.37095705	0.026511159	0.009789225	0.095977085	0.077121493	0.000356298	0.109003969
South Coast	2030	LHDT1	12.14805515	0	0.010453915	0.000504125	0	0.260837262	0	0
South Coast	2030	LHDT1	0	0	0	0	0	0	0	0
South Coast	2030	LHDT1	0	0	0	0	0	0	0	0
South Coast	2030	LHDT2	6.23788335	16.6973234	0.006045644	0.002110439	0.026574893	0.019328558	7.84684E-05	0.027624339
South Coast	2030	LHDT2	22.06620532	0	0.011919239	0.000609541	0	0.392579338	0	0
South Coast	2030	LHDT2	0	0	0	0	0	0	0	0
South Coast	2030	LHDT2	0	0	0	0	0	0	0	0
South Coast	2030	MCY	0	22.36917639	0.30404115	0	0.085020844	0.062639869	0	0.005929275
South Coast	2030	MDV	0	756.1563347	0.386314024	0	0.409042055	0.435886311	0	0.144164948
South Coast	2030	MDV	0	0	0.001122217	0	0	0.155987602	0	0
South Coast	2030	MDV	0	0	0	0	0	0	0	0
South Coast	2030	MDV	0	23.33968556	0.001906448	0	0.00718813	0.002399572	0	0.005238195
South Coast	2030	MDV	0	0	0	0	0	0	0	0
South Coast	2030	MH	0	0.113745951	0.001989274	0	9.77953E-05	0.005710934	0	0.000124701
South Coast	2030	MH	0	0	0.00030391	0	0	0.043375615	0	0
South Coast	2030	MHDT	17.50488657	28.69545443	0.009394228	0.004273165	0.027296019	0.021761762	0.00013843	0.021152916
South Coast	2030	MHDT	270.3421339	0	0.0015107	0.001113733	0	1.885520633	0	0
South Coast	2030	MHDT	0	0	0	0	0	0	0	0
South Coast	2030	MHDT	5.544631765	0	0.033459064	0.029172802	0	0.018594441	0	0
South Coast	2030	MHDT	0	0	0	0	0	0	0	0
South Coast	2030	OBUS	0.793886119	1.298851729	0.001198102	0.000202691	0.00148474	0.002660594	7.01008E-06	0.001307596
South Coast	2030	OBUS	7.416225735	0	0.000513454	0.000124796	0	0.062438246	0	0
South Coast	2030	OBUS	0	0	0	0	0	0	0	0
South Coast	2030	OBUS	0.864423216	0.00E+00	0	0.005791011	0	0.00E+00	0	0
South Coast	2030	OBUS	0	0	0	0	0	0	0	0
South Coast	2030	SBUS	7.245462613	0.617662873	0.001182745	0.004112097	0.000731804	0.002323881	0.000137834	0.000519433
South Coast	2030	SBUS	5.12024855	0	0.000225318	1.66065E-05	0	0.010541936	0	0
South Coast	2030	SBUS	0	0	0	0	0	0	0	0
South Coast	2030	SBUS	14.99182285	0	0.708005747	0.10305621	0	0.032231289	0	0
South Coast	2030	SBUS	0	0	0	0	0	0	0	0
South Coast	2030	UBUS	0	0.309396567	0.000292175	0.00E+00	0.000294283	0.001080756	0	0.000179176
South Coast	2030	UBUS	0	0.00E+00	1.06815E-06	0	0	8.99E-05	0.00E+00	0
South Coast	2030	UBUS	0	0	0	0	0	0	0	0
South Coast	2030	UBUS	0	0	1.403614542	0	0	0.142058834	0	0
South Coast	2030	UBUS	0	0	0	0	0	0	0	0

EMFAC2025			(g/mi)	(g/trip)	(g/trip)	(g/trip)	(g/trip)	(g/trip)	
Operational Year	Vehicle Type	Total VMT	Trips	TOG RUNEX (g/mi)	TOG IDLEX (g/trip)	TOG STREX (g/trip)	TOG DIURN (g/trip)	TOG HOTSOAK (g/trip)	TOG RUNLOSS (g/trip)
2037	HHDT	14,813,752	1,770,210	0.078	0.557	0.000	0.000	0.000	0.001
2037	LDA	158,778,819	22,114,605	0.026	0.000	0.193	0.409	0.162	0.210
2037	LDT1	13,577,561	1,825,813	0.066	0.000	0.448	0.822	0.260	0.506
2037	LDT2	100,525,372	13,478,635	0.022	0.000	0.235	0.288	0.088	0.187
2037	LHDT1	9,571,090	3,874,009	0.038	0.028	0.126	0.118	0.027	0.151
2037	LHDT2	6,005,813	2,091,600	0.049	0.016	0.066	0.038	0.009	0.055
2037	MCY	1,537,928	511,444	1.374	0.000	1.081	1.895	3.744	3.720
2037	MDV	62,849,945	8,281,744	0.031	0.000	0.298	0.343	0.090	0.231
2037	MH	404,849	4,800	0.040	0.000	0.101	20.576	4.890	0.124
2037	MHDT	5,884,906	2,204,321	0.018	0.040	0.065	0.035	0.008	0.065
2037	OBUS	332,017	82,360	0.055	0.094	0.094	0.240	0.048	0.109
2037	SBUS	227,783	91,920	1.551	1.006	0.047	0.072	0.014	0.048
2037	UBUS	551,438	25,814	2.078	0.000	0.067	0.012	0.003	0.012

CalEEMod Default (EMFAC2021) - Annual

Operational Year	Vehicle Type	TOG RUNEX (g/mi)	TOG IDLEX (g/trip)	TOG STREX (g/trip)	TOG DIURN (g/trip)	TOG HOTSOAK (g/trip)	TOG RUNLOSS (g/trip)
2037	HHDT	0.067	0.591	0.000	-	-	-
2037	LDA	0.008	0.000	0.216	0.259	0.068	0.137
2037	LDT1	0.034	0.000	0.399	0.552	0.140	0.345
2037	LDT2	0.013	0.000	0.266	0.233	0.060	0.145
2037	LHDT1	0.032	0.025	0.081	0.087	0.021	0.067
2037	LHDT2	0.049	0.018	0.048	0.058	0.013	0.043
2037	MCY	1.215	0.000	1.115	1.812	3.603	3.511
2037	MDV	0.016	0.000	0.310	0.281	0.069	0.181
2037	MH	0.035	0.000	0.096	19.687	4.692	0.069
2037	MHDT	0.022	0.068	0.052	0.027	0.006	0.022
2037	OBUS	0.089	0.089	0.119	0.114	0.024	0.038
2037	SBUS	1.388	1.716	0.050	0.093	0.018	0.249
2037	UBUS	2.643	0.000	0.050	0.012	0.003	0.007

EMFAC2025 Consolidated Emission Factors

Operational Year	Vehicle Type	Fleet Mix	ROG (g/mi)	NOx (g/mi)	CO (g/mi)	SOx (g/mi)	PM2.5 (g/mi)	PM10 (g/mi)	CO ₂ (g/mi)	ROG (g/trip)	NOx (g/trip)	CO (g/trip)	SOx (g/trip)	PM2.5 (g/trip)	PM10 (g/trip)	CO ₂ (g/trip)
2037	HHDT	1%	0.01	0.62	0.39	0.00	0.05	0.13	1367.97	0.37	2.98	5.90	0.00	0.00	0.00	819.69
2037	LDA	48%	0.02	0.04	2.11	0.00	0.01	0.02	239.17	0.96	0.12	2.24	0.00	0.00	0.00	56.19
2037	LDT1	4%	0.05	0.16	3.21	0.00	0.01	0.02	296.24	2.00	0.27	4.37	0.00	0.00	0.00	73.45
2037	LDT2	25%	0.02	0.05	2.37	0.00	0.01	0.02	325.14	0.78	0.16	2.58	0.00	0.00	0.00	76.25
2037	LHDT1	3%	0.03	0.38	0.79	0.00	0.04	0.09	516.50	0.43	0.39	1.68	0.00	0.00	0.00	24.59
2037	LHDT2	1%	0.04	0.27	0.40	0.00	0.04	0.11	527.71	0.18	0.22	0.90	0.00	0.00	0.00	19.52
2037	MCY	2%	1.11	0.50	10.99	0.00	0.01	0.02	204.59	10.35	0.09	7.09	0.00	0.00	0.00	39.68
2037	MDV	15%	0.02	0.08	2.58	0.00	0.01	0.02	385.25	0.94	0.21	2.68	0.00	0.00	0.00	85.39
2037	MH	0%	0.03	0.94	0.40	0.01	0.04	0.07	1546.40	25.68	0.31	2.00	0.00	0.00	0.00	21.50
2037	MHDT	1%	0.01	0.27	0.19	0.00	0.02	0.06	1111.68	0.19	1.04	1.84	0.00	0.00	0.00	132.55
2037	OBUS	0%	0.04	0.76	0.46	0.00	0.03	0.07	1112.56	0.53	0.86	2.34	0.00	0.00	0.00	114.26
2037	SBUS	0%	0.06	1.19	5.39	0.00	0.02	0.06	1123.21	0.50	0.95	4.38	0.00	0.00	0.00	276.09
2037	UBUS	0%	0.03	0.17	24.06	0.00	0.04	0.12	1383.93	0.09	0.10	0.92	0.00	0.00	0.00	10.87

EMFAC2021 Consolidated Emission Factors

Operational Year	Vehicle Type	Fleet Mix	ROG (g/mi)	NOx (g/mi)	CO (g/mi)	SOx (g/mi)	PM2.5 (g/mi)	PM10 (g/mi)	CO ₂ (g/mi)	ROG (g/trip)	NOx (g/trip)	CO (g/trip)	SOx (g/trip)	PM2.5 (g/trip)	PM10 (g/trip)	CO ₂ (g/trip)
2037	HHDT	1%	0.01	1.39	0.42	0.01	0.06	0.14	1371.70	0.27	6.13	4.92	0.01	0.00	0.00	725.67
2037	LDA	48%	0.01	0.03	0.56	0.00	0.01	0.02	236.22	0.66	0.18	2.04	0.00	0.00	0.00	57.61
2037	LDT1	4%	0.02	0.09	1.21	0.00	0.01	0.02	311.50	1.40	0.29	3.59	0.00	0.00	0.00	76.64
2037	LDT2	25%	0.01	0.04	0.71	0.00	0.01	0.02	316.35	0.68	0.23	2.49	0.00	0.00	0.00	75.75
2037	LHDT1	3%	0.03	0.22	0.43	0.01	0.03	0.09	478.05	0.27	0.35	2.19	0.00	0.00	0.00	24.08
2037	LHDT2	1%	0.04	0.35	0.26	0.01	0.04	0.11	534.55	0.17	0.26	1.27	0.00	0.00	0.00	22.14
2037	MCY	2%	0.99	0.49	11.24	0.00	0.01	0.02	193.06	9.95	0.10	7.20	0.00	0.00	0.00	40.60
2037	MDV	15%	0.01	0.06	0.78	0.00	0.01	0.02	380.66	0.81	0.26	2.56	0.00	0.00	0.00	90.63
2037	MH	0%	0.03	0.98	0.30	0.02	0.04	0.07	1536.78	24.54	0.29	1.89	0.00	0.00	0.00	20.67
2037	MHDT	1%	0.01	0.47	0.17	0.01	0.02	0.06	1049.56	0.13	2.05	1.71	0.00	0.00	0.00	183.40
2037	OBUS	0%	0.04	0.96	0.58	0.01	0.04	0.09	1340.13	0.33	1.04	2.79	0.00	0.00	0.00	109.90
2037	SBUS	0%	0.06	1.44	4.81	0.01	0.03	0.06	1121.17	1.31	0.94	8.65	0.00	0.00	0.00	377.31
2037	UBUS	0%	0.04	0.20	31.66	0.00	0.04	0.13	1705.10	0.07	0.08	0.79	0.00	0.00	0.00	8.89

		(g/mi)	(g/trip)	(g/trip)	(g/trip)	(g/trip)	(g/trip)	(g/mi)	(g/trip)	(g/trip)	(g/mi)	(g/trip)	(g/trip)	(g/mi)
EMFAC2025		ROG	ROG	ROG	ROG	ROG	ROG	NOx	NOx	NOx	CO	CO	CO	SOx
Operational Year	Vehicle Type	ROG RUNEX (g/mi)	ROG IDLEX (g/trip)	ROG STREX (g/trip)	ROG DIURN (g/trip)	ROG HOTSOAK (g/trip)	ROG RUNLOSS (g/trip)	NOx RUNEX (g/mi)	NOx IDLEX (g/trip)	NOx STREX (g/trip)	CO RUNEX (g/mi)	CO IDLEX (g/trip)	CO STREX (g/trip)	SOx RUNEX (g/mi)
2037	HHDT	0.011	0.371	0.000	0.000	0.000	0.001	0.618	1.474	1.506	0.385	5.892	0.004	0.004
2037	LDA	0.020	0.000	0.176	0.409	0.162	0.210	0.038	0.000	0.116	2.108	0.000	2.244	0.001
2037	LDT1	0.048	0.000	0.409	0.822	0.260	0.506	0.163	0.000	0.266	3.213	0.000	4.371	0.001
2037	LDT2	0.016	0.000	0.214	0.288	0.088	0.187	0.048	0.000	0.162	2.372	0.000	2.576	0.001
2037	LHDT1	0.031	0.020	0.115	0.118	0.027	0.151	0.377	0.041	0.353	0.790	0.196	1.480	0.002
2037	LHDT2	0.042	0.012	0.060	0.038	0.009	0.055	0.269	0.057	0.164	0.402	0.127	0.774	0.002
2037	MCY	1.112	0.000	0.993	1.895	3.744	3.720	0.496	0.000	0.091	10.987	0.000	7.089	0.001
2037	MDV	0.022	0.000	0.272	0.343	0.090	0.231	0.076	0.000	0.211	2.582	0.000	2.681	0.002
2037	MH	0.031	0.000	0.092	20.576	4.890	0.124	0.943	0.000	0.306	0.398	0.000	1.995	0.006
2037	MHDT	0.011	0.024	0.060	0.035	0.008	0.065	0.267	0.293	0.747	0.186	0.622	1.218	0.004
2037	OBUS	0.044	0.047	0.086	0.240	0.048	0.109	0.756	0.211	0.653	0.461	0.655	1.683	0.004
2037	SBUS	0.061	0.325	0.043	0.072	0.014	0.048	1.188	0.758	0.195	5.392	3.411	0.964	0.002
2037	UBUS	0.031	0.000	0.061	0.012	0.003	0.012	0.167	0.000	0.099	24.056	0.000	0.920	0.001

CalEEMod Default (EMFAC2021) - Annual

Operational Year	Vehicle Type	ROG RUNEX (g/mi)	ROG IDLEX (g/trip)	ROG STREX (g/trip)	ROG DIURN (g/trip)	ROG HOTSOAK (g/trip)	ROG RUNLOSS (g/trip)	NOx RUNEX (g/mi)	NOx IDLEX (g/trip)	NOx STREX (g/trip)	CO RUNEX (g/mi)	CO IDLEX (g/trip)	CO STREX (g/trip)	SOx RUNEX (g/mi)
2037	HHDT	0.012	0.274	0.000	-	-	-	1.393	3.578	2.553	0.418	4.915	0.002	0.012
2037	LDA	0.006	0.000	0.197	0.259	0.068	0.137	0.025	0.000	0.179	0.560	0.000	2.042	0.002
2037	LDT1	0.023	0.000	0.364	0.552	0.140	0.345	0.094	0.000	0.288	1.206	0.000	3.587	0.003
2037	LDT2	0.009	0.000	0.243	0.233	0.060	0.145	0.044	0.000	0.231	0.712	0.000	2.491	0.003
2037	LHDT1	0.027	0.018	0.074	0.087	0.021	0.067	0.223	0.039	0.313	0.426	0.187	1.999	0.005
2037	LHDT2	0.043	0.014	0.044	0.058	0.013	0.043	0.349	0.067	0.190	0.262	0.137	1.128	0.005
2037	MCY	0.986	0.000	1.025	1.812	3.603	3.511	0.494	0.000	0.095	11.241	0.000	7.198	0.002
2037	MDV	0.011	0.000	0.283	0.281	0.069	0.181	0.058	0.000	0.261	0.777	0.000	2.563	0.004
2037	MH	0.028	0.000	0.087	19.687	4.692	0.069	0.976	0.000	0.292	0.298	0.000	1.894	0.015
2037	MHDT	0.012	0.023	0.047	0.027	0.006	0.022	0.471	0.920	1.130	0.174	0.746	0.968	0.010
2037	OBUS	0.037	0.045	0.109	0.114	0.024	0.038	0.962	0.324	0.718	0.582	0.607	2.183	0.012
2037	SBUS	0.060	0.905	0.045	0.093	0.018	0.249	1.443	0.748	0.190	4.813	7.687	0.959	0.006
2037	UBUS	0.038	0.000	0.046	0.012	0.003	0.007	0.201	0.000	0.081	31.657	0.000	0.794	0.001

EMFAC2025 Consolidated Emission Factors

Operational Year	Vehicle Type	Fleet Mix
2037	HHDT	1%
2037	LDA	48%
2037	LDT1	4%
2037	LDT2	25%
2037	LHDT1	3%
2037	LHDT2	1%
2037	MCY	2%
2037	MDV	15%
2037	MH	0%
2037	MHDT	1%
2037	OBUS	0%
2037	SBUS	0%
2037	UBUS	0%

EMFAC2021 Consolidated Emission Factors

Operational Year	Vehicle Type	Fleet Mix
2037	HHDT	1%
2037	LDA	48%
2037	LDT1	4%
2037	LDT2	25%
2037	LHDT1	3%
2037	LHDT2	1%
2037	MCY	2%
2037	MDV	15%
2037	MH	0%
2037	MHDT	1%
2037	OBUS	0%
2037	SBUS	0%
2037	UBUS	0%

EMFAC2025		(g/trip)	(g/trip)	(g/mi)	(g/trip)	(g/mi)	(g/trip)	(g/mi)	(g/mi)	(g/trip)	(g/mi)	(g/mi)	(g/mi)	(g/mi)
		SOx	SOx	PM2.5	PM2.5	PM2.5	PM2.5	PM2.5	PM10	PM10	PM10	PM10	PM10	CO ₂
Operational Year	Vehicle Type	SOx IDLEX (g/trip)	SOx STREX (g/trip)	PM2.5 RUNEX (g/mi)	PM2.5 IDLEX (g/trip)	PM2.5 STREX (g/trip)	PM2.5 PMTW (g/mi)	PM2.5 PMBW (g/mi)	PM10 RUNEX (g/mi)	PM10 IDLEX (g/trip)	PM10 STREX (g/trip)	PM10 PMTW (g/mi)	PM10 PMBW (g/mi)	CO ₂ RUNEX (g/mi)
2037	HHDT	0.003	0.000	0.012	0.001	0.000	0.009	0.029	0.013	0.001	0.000	0.035	0.082	1367.971
2037	LDA	0.000	0.000	0.002	0.000	0.001	0.002	0.002	0.002	0.000	0.002	0.008	0.006	239.172
2037	LDT1	0.000	0.000	0.003	0.000	0.002	0.002	0.003	0.003	0.000	0.002	0.008	0.008	296.243
2037	LDT2	0.000	0.000	0.002	0.000	0.001	0.002	0.003	0.002	0.000	0.002	0.008	0.008	325.142
2037	LHDT1	0.000	0.000	0.006	0.001	0.000	0.002	0.027	0.007	0.001	0.000	0.009	0.077	516.496
2037	LHDT2	0.000	0.000	0.008	0.001	0.000	0.003	0.031	0.008	0.001	0.000	0.011	0.089	527.715
2037	MCY	0.000	0.000	0.003	0.000	0.003	0.001	0.004	0.003	0.000	0.003	0.004	0.012	204.588
2037	MDV	0.000	0.000	0.002	0.000	0.001	0.002	0.003	0.002	0.000	0.002	0.008	0.008	385.253
2037	MH	0.000	0.000	0.017	0.000	0.000	0.003	0.015	0.018	0.000	0.000	0.013	0.043	1546.401
2037	MHDT	0.000	0.000	0.003	0.000	0.000	0.003	0.015	0.003	0.000	0.000	0.012	0.042	1111.684
2037	OBUS	0.000	0.000	0.008	0.000	0.000	0.003	0.017	0.009	0.000	0.000	0.012	0.050	1112.561
2037	SBUS	0.000	0.000	0.005	0.001	0.000	0.003	0.016	0.005	0.001	0.000	0.010	0.046	1123.207
2037	UBUS	0.000	0.000	0.000	0.000	0.000	0.007	0.032	0.001	0.000	0.000	0.027	0.090	1383.929

CalEEMod Default (EMFAC2021) - Annual

Operational Year	Vehicle Type	SOx IDLEX (g/trip)	SOx STREX (g/trip)	PM2.5 RUNEX (g/mi)	PM2.5 IDLEX (g/trip)	PM2.5 STREX (g/trip)	PM2.5 PMTW (g/mi)	PM2.5 PMBW (g/mi)	PM10 RUNEX (g/mi)	PM10 IDLEX (g/trip)	PM10 STREX (g/trip)	PM10 PMTW (g/mi)	PM10 PMBW (g/mi)	CO ₂ RUNEX (g/mi)
2037	HHDT	0.006	0.000	0.021	0.002	0.000	0.009	0.030	0.022	0.002	0.000	0.035	0.085	1371.695
2037	LDA	0.000	0.001	0.001	0.000	0.001	0.002	0.003	0.001	0.000	0.002	0.008	0.008	236.218
2037	LDT1	0.000	0.001	0.002	0.000	0.002	0.002	0.004	0.002	0.000	0.002	0.008	0.011	311.502
2037	LDT2	0.000	0.001	0.001	0.000	0.001	0.002	0.004	0.001	0.000	0.002	0.008	0.010	316.345
2037	LHDT1	0.000	0.000	0.005	0.001	0.000	0.002	0.026	0.005	0.001	0.000	0.009	0.074	478.054
2037	LHDT2	0.000	0.000	0.009	0.001	0.000	0.003	0.030	0.010	0.001	0.000	0.010	0.087	534.546
2037	MCY	0.000	0.000	0.002	0.000	0.003	0.001	0.004	0.002	0.000	0.004	0.004	0.012	193.059
2037	MDV	0.000	0.001	0.001	0.000	0.001	0.002	0.004	0.001	0.000	0.002	0.008	0.010	380.663
2037	MH	0.000	0.000	0.018	0.000	0.000	0.003	0.015	0.018	0.000	0.000	0.013	0.043	1536.781
2037	MHDT	0.002	0.000	0.005	0.001	0.000	0.003	0.015	0.005	0.001	0.000	0.012	0.042	1049.559
2037	OBUS	0.001	0.000	0.015	0.001	0.000	0.003	0.020	0.016	0.001	0.000	0.012	0.057	1340.126
2037	SBUS	0.003	0.000	0.008	0.001	0.000	0.003	0.016	0.008	0.001	0.000	0.010	0.046	1121.173
2037	UBUS	0.000	0.000	0.000	0.000	0.000	0.008	0.033	0.000	0.000	0.000	0.032	0.094	1705.096

EMFAC2025 Consolidated Emission Factors

Operational Year	Vehicle Type	Fleet Mix
2037	HHDT	1%
2037	LDA	48%
2037	LDT1	4%
2037	LDT2	25%
2037	LHDT1	3%
2037	LHDT2	1%
2037	MCY	2%
2037	MDV	15%
2037	MH	0%
2037	MHDT	1%
2037	OBUS	0%
2037	SBUS	0%
2037	UBUS	0%

EMFAC2021 Consolidated Emission Factors

Operational Year	Vehicle Type	Fleet Mix
2037	HHDT	1%
2037	LDA	48%
2037	LDT1	4%
2037	LDT2	25%
2037	LHDT1	3%
2037	LHDT2	1%
2037	MCY	2%
2037	MDV	15%
2037	MH	0%
2037	MHDT	1%
2037	OBUS	0%
2037	SBUS	0%
2037	UBUS	0%

EMFAC2025	Operational Year	Vehicle Type	(g/trip)	(g/trip)	(g/mi)	(g/trip)	(g/trip)	(g/mi)	(g/trip)	(g/trip)
			CO ₂	CO ₂	CH ₄	CH ₄	CH ₄	N ₂ O	N ₂ O	N ₂ O
			CO ₂ IDLEX (g/trip)	CO ₂ STREX (g/trip)	CH ₄ RUNEX (g/mi)	CH ₄ IDLEX (g/trip)	CH ₄ STREX (g/trip)	N ₂ O RUNEX (g/mi)	N ₂ O IDLEX (g/trip)	N ₂ O STREX (g/trip)
2037		HHDT	819.629	0.059	0.109	0.195	0.000	0.394	0.000	0.000
2037		LDA	0.000	56.190	0.004	0.000	0.032	0.004	0.000	0.012
2037		LDT1	0.000	73.449	0.011	0.000	0.065	0.011	0.000	0.020
2037		LDT2	0.000	76.249	0.004	0.000	0.039	0.005	0.000	0.015
2037		LHDT1	8.114	16.479	0.004	0.002	0.022	0.032	0.000	0.026
2037		LHDT2	12.276	7.242	0.003	0.001	0.012	0.062	0.000	0.012
2037		MCY	0.000	39.678	0.179	0.000	0.151	0.037	0.000	0.011
2037		MDV	0.000	85.386	0.006	0.000	0.046	0.009	0.000	0.016
2037		MH	0.000	21.496	0.005	0.000	0.018	0.110	0.000	0.024
2037		MHDT	120.745	11.810	0.007	0.014	0.011	0.297	0.000	0.009
2037		OBUS	99.955	14.307	0.005	0.067	0.016	0.178	0.000	0.014
2037		SBUS	269.998	6.096	2.825	1.058	0.007	0.180	0.001	0.005
2037		UBUS	0.000	10.873	2.310	0.000	0.010	0.236	0.000	0.006

CalEEMod Default (EMFAC2021) - Annual

Operational Year	Vehicle Type	CO ₂ IDLEX (g/trip)	CO ₂ STREX (g/trip)	CH ₄ RUNEX (g/mi)	CH ₄ IDLEX (g/trip)	CH ₄ STREX (g/trip)	N ₂ O RUNEX (g/mi)	N ₂ O IDLEX (g/trip)	N ₂ O STREX (g/trip)
2037	HHDT	725.646	0.020	0.053	0.291	0.000	0.219	0.121	0.000
2037	LDA	0.000	57.611	0.002	0.000	0.046	0.003	0.000	0.026
2037	LDT1	0.000	76.636	0.005	0.000	0.075	0.007	0.000	0.033
2037	LDT2	0.000	75.745	0.002	0.000	0.056	0.005	0.000	0.031
2037	LHDT1	8.334	15.747	0.002	0.004	0.016	0.028	0.001	0.028
2037	LHDT2	13.139	8.998	0.002	0.003	0.009	0.055	0.002	0.016
2037	MCY	0.000	40.601	0.159	0.000	0.142	0.036	0.000	0.006
2037	MDV	0.000	90.627	0.003	0.000	0.062	0.006	0.000	0.031
2037	MH	0.000	20.666	0.004	0.000	0.023	0.061	0.000	0.034
2037	MHDT	173.841	9.560	0.009	0.041	0.009	0.122	0.027	0.007
2037	OBUS	91.423	18.476	0.046	0.038	0.020	0.134	0.013	0.017
2037	SBUS	371.010	6.301	1.313	0.601	0.008	0.145	0.036	0.008
2037	UBUS	0.000	8.891	2.588	0.000	0.011	0.324	0.000	0.007

EMFAC2025 Consolidated Emission Factors

Operational Year	Vehicle Type	Fleet Mix
2037	HHDT	1%
2037	LDA	48%
2037	LDT1	4%
2037	LDT2	25%
2037	LHDT1	3%
2037	LHDT2	1%
2037	MCY	2%
2037	MDV	15%
2037	MH	0%
2037	MHDT	1%
2037	OBUS	0%
2037	SBUS	0%
2037	UBUS	0%

EMFAC2021 Consolidated Emission Factors

Operational Year	Vehicle Type	Fleet Mix
2037	HHDT	1%
2037	LDA	48%
2037	LDT1	4%
2037	LDT2	25%
2037	LHDT1	3%
2037	LHDT2	1%
2037	MCY	2%
2037	MDV	15%
2037	MH	0%
2037	MHDT	1%
2037	OBUS	0%
2037	SBUS	0%
2037	UBUS	0%

Comparison

			ROG (g/mi)	NOx (g/mi)	CO (g/mi)	SOx (g/mi)	PM2.5 (g/mi)	PM10 (g/mi)	CO ₂ (g/mi)	ROG (g/trip)	NOx (g/trip)	CO (g/trip)	SOx (g/trip)	PM2.5 (g/trip)	PM10 (g/trip)	CO ₂ (g/trip)
		EMFAC2025	0.045767	0.084877	2.413858	0.00133405	0.008252203	0.021977582	319.8098955	1.19673352	0.194711738	2.592279	0.000301207	0.001479377	0.001605079	72.78625235
		EMFAC2021	0.031706	0.078391	0.90983	0.00292366	0.00837534	0.022615045	314.5203536	0.97037752	0.290490707	2.437305	0.000997558	0.001092172	0.001990593	74.01813608
		EMFAC2025 vs 2021	31%	8%	62%	-119%	-1%	-3%	2%	19%	-49%	6%	-231%	26%	-24%	-2%
VMT	109571	EMFAC2025	11.05688	20.50545	583.1654	0.32229356	1.993654591	5.30957726	77263.06402	36.3342165	5.911674004	78.70459	0.009145	0.044915597	0.048732068	2209.874972
Trips	13770	EMFAC2021	7.659942	18.93862	219.8063	0.7063276	2.023403387	5.463582147	75985.16043	29.4617862	8.819634515	73.99941	0.030287006	0.033159609	0.060436708	2247.27639
			ROG	NOx	CO	SOx	PM2.5	PM10								
		EMFAC2025	47.4	26.4	661.9	0.3	2.0	5.4								
		EMFAC2021	37.1	27.8	293.8	0.7	2.1	5.5								
		Comparison	28%	-5%	125%	-55%	-1%	-3%								

UCLA Research Park - Existing Baseline Detailed Report

Table of Contents

- 1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
 - 2.4. Operations Emissions Compared Against Thresholds
 - 2.5. Operations Emissions by Sector, Unmitigated
 - 2.6. Operations Emissions by Sector, Mitigated
- 4. Operations Emissions Details
 - 4.1. Mobile Emissions by Land Use
 - 4.1.1. Unmitigated
 - 4.1.2. Mitigated
 - 4.2. Energy
 - 4.2.1. Electricity Emissions By Land Use - Unmitigated
 - 4.2.2. Electricity Emissions By Land Use - Mitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.2.4. Natural Gas Emissions By Land Use - Mitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.3.2. Mitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.4.2. Mitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.5.2. Mitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.6.2. Mitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.7.2. Mitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.8.2. Mitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.9.2. Mitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

8.1. Justifications

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	UCLA Research Park - Existing Baseline
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.7
Precipitation (days)	20
Location	34.04059616575768, -118.4261202729422
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4470
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas
App Version	2022.1.1.35

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
Enclosed Parking with Elevator	2,219	Space	20	489,200	0.00	—	—	—

Regional Shopping Center	744	1000sqft	17	744,385	2,000	—	—	—
--------------------------	-----	----------	----	---------	-------	---	---	---

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-B	Water Active Demolition Sites
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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	88	84	30	352	0.56	0.57	48	49	0.52	12	13	527	69,412	69,939	59	3.4	204	72,609
Mit.	88	84	30	352	0.56	0.57	48	49	0.52	12	13	527	69,412	69,939	59	3.4	204	72,609
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	78	74	32	293	0.53	0.47	48	48	0.44	12	13	527	66,934	67,461	59	3.5	8.8	69,991
Mit.	78	74	32	293	0.53	0.47	48	48	0.44	12	13	527	66,934	67,461	59	3.5	8.8	69,991
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	83	79	31	320	0.50	0.51	44	44	0.47	11	12	527	63,848	64,375	59	3.4	83	66,935
Mit.	83	79	31	320	0.50	0.51	44	44	0.47	11	12	527	63,848	64,375	59	3.4	83	66,935
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	15	14	5.7	58	0.09	0.09	8.0	8.1	0.09	2.0	2.1	87	10,571	10,658	9.7	0.56	14	11,082
Mit.	15	14	5.7	58	0.09	0.09	8.0	8.1	0.09	2.0	2.1	87	10,571	10,658	9.7	0.56	14	11,082
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	61	57	29	297	0.55	0.40	48	48	0.37	12	13	—	56,321	56,321	4.3	2.9	200	57,498
Area	28	27	0.45	54	< 0.005	0.10	—	0.10	0.07	—	0.07	—	221	221	0.01	< 0.005	—	221
Energy	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	12,412	12,412	1.3	0.18	—	12,498
Water	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914
Waste	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	88	84	30	352	0.56	0.57	48	49	0.52	12	13	527	69,412	69,939	59	3.4	204	72,609
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	60	56	31	292	0.53	0.40	48	48	0.37	12	13	—	54,064	54,064	4.6	3.1	5.2	55,101
Area	18	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	12,412	12,412	1.3	0.18	—	12,498
Water	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914

Waste	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	78	74	32	293	0.53	0.47	48	48	0.44	12	13	527	66,934	67,461	59	3.5	8.8	69,991
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	59	55	30	283	0.50	0.37	44	44	0.35	11	11	—	50,827	50,827	4.4	2.9	80	51,894
Area	25	24	0.31	37	< 0.005	0.07	—	0.07	0.05	—	0.05	—	151	151	0.01	< 0.005	—	152
Energy	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	12,412	12,412	1.3	0.18	—	12,498
Water	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914
Waste	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	83	79	31	320	0.50	0.51	44	44	0.47	11	12	527	63,848	64,375	59	3.4	83	66,935
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	11	10	5.5	52	0.09	0.07	8.0	8.1	0.06	2.0	2.1	—	8,415	8,415	0.73	0.49	13	8,592
Area	4.5	4.4	0.06	6.7	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25	25	< 0.005	< 0.005	—	25
Energy	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,055	2,055	0.22	0.03	—	2,069
Water	—	—	—	—	—	—	—	—	—	—	—	17	76	93	1.8	0.04	—	151
Waste	—	—	—	—	—	—	—	—	—	—	—	70	0.00	70	7.0	0.00	—	244
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.59	0.59
Total	15	14	5.7	58	0.09	0.09	8.0	8.1	0.09	2.0	2.1	87	10,571	10,658	9.7	0.56	14	11,082

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	61	57	29	297	0.55	0.40	48	48	0.37	12	13	—	56,321	56,321	4.3	2.9	200	57,498
Area	28	27	0.45	54	< 0.005	0.10	—	0.10	0.07	—	0.07	—	221	221	0.01	< 0.005	—	221

Energy	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	12,412	12,412	1.3	0.18	—	12,498
Water	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914
Waste	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	88	84	30	352	0.56	0.57	48	49	0.52	12	13	527	69,412	69,939	59	3.4	204	72,609
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	60	56	31	292	0.53	0.40	48	48	0.37	12	13	—	54,064	54,064	4.6	3.1	5.2	55,101
Area	18	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	12,412	12,412	1.3	0.18	—	12,498
Water	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914
Waste	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	78	74	32	293	0.53	0.47	48	48	0.44	12	13	527	66,934	67,461	59	3.5	8.8	69,991
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	59	55	30	283	0.50	0.37	44	44	0.35	11	11	—	50,827	50,827	4.4	2.9	80	51,894
Area	25	24	0.31	37	< 0.005	0.07	—	0.07	0.05	—	0.05	—	151	151	0.01	< 0.005	—	152
Energy	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	12,412	12,412	1.3	0.18	—	12,498
Water	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914
Waste	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	83	79	31	320	0.50	0.51	44	44	0.47	11	12	527	63,848	64,375	59	3.4	83	66,935
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	11	10	5.5	52	0.09	0.07	8.0	8.1	0.06	2.0	2.1	—	8,415	8,415	0.73	0.49	13	8,592
Area	4.5	4.4	0.06	6.7	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25	25	< 0.005	< 0.005	—	25
Energy	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	2,055	2,055	0.22	0.03	—	2,069
Water	—	—	—	—	—	—	—	—	—	—	—	17	76	93	1.8	0.04	—	151

Waste	—	—	—	—	—	—	—	—	—	—	—	70	0.00	70	7.0	0.00	—	244
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.59	0.59
Total	15	14	5.7	58	0.09	0.09	8.0	8.1	0.09	2.0	2.1	87	10,571	10,658	9.7	0.56	14	11,082

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	61	57	29	297	0.55	0.40	48	48	0.37	12	13	—	56,321	56,321	4.3	2.9	200	57,498
Total	61	57	29	297	0.55	0.40	48	48	0.37	12	13	—	56,321	56,321	4.3	2.9	200	57,498
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Regional	60	56	31	292	0.53	0.40	48	48	0.37	12	13	—	54,064	54,064	4.6	3.1	5.2	55,101
Total	60	56	31	292	0.53	0.40	48	48	0.37	12	13	—	54,064	54,064	4.6	3.1	5.2	55,101
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	11	10	5.5	52	0.09	0.07	8.0	8.1	0.06	2.0	2.1	—	8,415	8,415	0.73	0.49	13	8,592
Total	11	10	5.5	52	0.09	0.07	8.0	8.1	0.06	2.0	2.1	—	8,415	8,415	0.73	0.49	13	8,592

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	61	57	29	297	0.55	0.40	48	48	0.37	12	13	—	56,321	56,321	4.3	2.9	200	57,498
Total	61	57	29	297	0.55	0.40	48	48	0.37	12	13	—	56,321	56,321	4.3	2.9	200	57,498

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	60	56	31	292	0.53	0.40	48	48	0.37	12	13	—	54,064	54,064	4.6	3.1	5.2	55,101
Total	60	56	31	292	0.53	0.40	48	48	0.37	12	13	—	54,064	54,064	4.6	3.1	5.2	55,101
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	11	10	5.5	52	0.09	0.07	8.0	8.1	0.06	2.0	2.1	—	8,415	8,415	0.73	0.49	13	8,592
Total	11	10	5.5	52	0.09	0.07	8.0	8.1	0.06	2.0	2.1	—	8,415	8,415	0.73	0.49	13	8,592

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

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

Enclose Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	2,202	2,202	0.24	0.03	—	2,218
Regiona l Shoppin g Center	—	—	—	—	—	—	—	—	—	—	—	—	9,036	9,036	0.99	0.14	—	9,103
Total	—	—	—	—	—	—	—	—	—	—	—	—	11,238	11,238	1.2	0.17	—	11,320
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclose d Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	2,202	2,202	0.24	0.03	—	2,218
Regiona l Shoppin g Center	—	—	—	—	—	—	—	—	—	—	—	—	9,036	9,036	0.99	0.14	—	9,103
Total	—	—	—	—	—	—	—	—	—	—	—	—	11,238	11,238	1.2	0.17	—	11,320
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclose d Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	365	365	0.04	0.01	—	367
Regiona l Shoppin g Center	—	—	—	—	—	—	—	—	—	—	—	—	1,496	1,496	0.16	0.02	—	1,507
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,861	1,861	0.20	0.03	—	1,874

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	2,202	2,202	0.24	0.03	—	2,218
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	9,036	9,036	0.99	0.14	—	9,103
Total	—	—	—	—	—	—	—	—	—	—	—	—	11,238	11,238	1.2	0.17	—	11,320
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	2,202	2,202	0.24	0.03	—	2,218
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	9,036	9,036	0.99	0.14	—	9,103
Total	—	—	—	—	—	—	—	—	—	—	—	—	11,238	11,238	1.2	0.17	—	11,320
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	365	365	0.04	0.01	—	367
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	1,496	1,496	0.16	0.02	—	1,507
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,861	1,861	0.20	0.03	—	1,874

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Total	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Total	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	194	194	0.02	< 0.005	—	195
Total	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	194	194	0.02	< 0.005	—	195

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Regional	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Total	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Total	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	194	194	0.02	< 0.005	—	195
Total	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	194	194	0.02	< 0.005	—	195

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	16	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	2.0	2.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	9.5	8.8	0.45	54	< 0.005	0.10	—	0.10	0.07	—	0.07	—	221	221	0.01	< 0.005	—	221
Total	28	27	0.45	54	< 0.005	0.10	—	0.10	0.07	—	0.07	—	221	221	0.01	< 0.005	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	16	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	2.0	2.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	18	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	2.9	2.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.37	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	1.2	1.1	0.06	6.7	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25	25	< 0.005	< 0.005	—	25
Total	4.5	4.4	0.06	6.7	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25	25	< 0.005	< 0.005	—	25

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	16	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	2.0	2.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	9.5	8.8	0.45	54	< 0.005	0.10	—	0.10	0.07	—	0.07	—	221	221	0.01	< 0.005	—	221
Total	28	27	0.45	54	< 0.005	0.10	—	0.10	0.07	—	0.07	—	221	221	0.01	< 0.005	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	16	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	2.0	2.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	18	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consum Products	2.9	2.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coating s	0.37	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landsca pe Equipm ent	1.2	1.1	0.06	6.7	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25	25	< 0.005	< 0.005	—	25
Total	4.5	4.4	0.06	6.7	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25	25	< 0.005	< 0.005	—	25

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclose d Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regiona l Shoppin g Center	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914
Total	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Enclosed	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914
Total	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	17	76	93	1.8	0.04	—	151
Total	—	—	—	—	—	—	—	—	—	—	—	17	76	93	1.8	0.04	—	151

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914
Total	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914
Total	—	—	—	—	—	—	—	—	—	—	—	106	458	563	11	0.26	—	914
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	17	76	93	1.8	0.04	—	151
Total	—	—	—	—	—	—	—	—	—	—	—	17	76	93	1.8	0.04	—	151

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Total	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Total	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	70	0.00	70	7.0	0.00	—	244
Total	—	—	—	—	—	—	—	—	—	—	—	70	0.00	70	7.0	0.00	—	244

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Total	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474

Total	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	70	0.00	70	7.0	0.00	—	244
Total	—	—	—	—	—	—	—	—	—	—	—	70	0.00	70	7.0	0.00	—	244

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.59	0.59
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.59	0.59

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.59	0.59
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.59	0.59

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.7.2. Mitigated

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

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.8.2. Mitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.9.2. Mitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

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

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

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

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	VTM/Weekday	VTM/Saturday	VTM/Sunday	VTM/Year
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	18,976	18,976	18,976	6,926,190	60,582	67,690	67,690	22,853,712

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VTM/Weekday	VTM/Saturday	VTM/Sunday	VTM/Year
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	18,976	18,976	18,976	6,926,190	60,582	67,690	67,690	22,853,712

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Enclosed Parking with Elevator	Wood Fireplaces	0	0
Enclosed Parking with Elevator	Gas Fireplaces	0	0
Enclosed Parking with Elevator	Propane Fireplaces	0	0
Enclosed Parking with Elevator	Electric Fireplaces	0	0
Enclosed Parking with Elevator	No Fireplaces	0	0
Enclosed Parking with Elevator	Conventional Wood Stoves	0	0
Enclosed Parking with Elevator	Catalytic Wood Stoves	0	0
Enclosed Parking with Elevator	Non-Catalytic Wood Stoves	0	0
Enclosed Parking with Elevator	Pellet Wood Stoves	0	0

Regional Shopping Center	Wood Fireplaces	0	0
Regional Shopping Center	Gas Fireplaces	0	0
Regional Shopping Center	Propane Fireplaces	0	0
Regional Shopping Center	Electric Fireplaces	0	0
Regional Shopping Center	No Fireplaces	0	0
Regional Shopping Center	Conventional Wood Stoves	0	0
Regional Shopping Center	Catalytic Wood Stoves	0	0
Regional Shopping Center	Non-Catalytic Wood Stoves	0	0
Regional Shopping Center	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

—	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
undefined	0.00	0.00	1,155,725	376,542	52,196

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)
Enclosed Parking with Elevator	1,805,848	445	0.0489	0.0069	0.00
Regional Shopping Center	7,411,496	445	0.0489	0.0069	3,665,458

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)
Enclosed Parking with Elevator	1,805,848	445	0.0489	0.0069	0.00
Regional Shopping Center	7,411,496	445	0.0489	0.0069	3,665,458

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Enclosed Parking with Elevator	0.00	0.00
Regional Shopping Center	55,138,474	28,049

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Enclosed Parking with Elevator	0.00	0.00
Regional Shopping Center	55,138,474	28,049

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Enclosed Parking with Elevator	0.00	0.00
Regional Shopping Center	782	0.00

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Enclosed Parking with Elevator	0.00	0.00
Regional Shopping Center	782	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.0	4.0	18
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.0	4.0	18
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

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	5.7	annual days of extreme heat
Extreme Precipitation	5.5	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 $\frac{3}{4}$ 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	51
AQ-PM	69
AQ-DPM	68
Drinking Water	53
Lead Risk Housing	60
Pesticides	0.00
Toxic Releases	76
Traffic	92
Effect Indicators	—
CleanUp Sites	12
Groundwater	75
Haz Waste Facilities/Generators	62
Impaired Water Bodies	0.00
Solid Waste	59
Sensitive Population	—
Asthma	27
Cardio-vascular	51
Low Birth Weights	52
Socioeconomic Factor Indicators	—

Education	17
Housing	78
Linguistic	—
Poverty	30
Unemployment	17

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	83.52367509
Employed	92.6344155
Median HI	85.06351854
Education	—
Bachelor's or higher	94.19992301
High school enrollment	7.442576671
Preschool enrollment	95.7141024
Transportation	—
Auto Access	20.53124599
Active commuting	60.74682407
Social	—
2-parent households	85.19183883
Voting	66.58539715
Neighborhood	—
Alcohol availability	41.01116387
Park access	59.60477351
Retail density	99.76902348
Supermarket access	58.09059412

Tree canopy	75.18285641
Housing	—
Homeownership	50.73784165
Housing habitability	39.44565636
Low-inc homeowner severe housing cost burden	31.93891954
Low-inc renter severe housing cost burden	68.25356089
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	89.88836135
Arthritis	47.0
Asthma ER Admissions	89.9
High Blood Pressure	38.5
Cancer (excluding skin)	12.2
Asthma	91.1
Coronary Heart Disease	54.4
Chronic Obstructive Pulmonary Disease	81.8
Diagnosed Diabetes	84.4
Life Expectancy at Birth	67.7
Cognitively Disabled	28.0
Physically Disabled	13.7
Heart Attack ER Admissions	67.4
Mental Health Not Good	93.4
Chronic Kidney Disease	64.9
Obesity	88.4
Pedestrian Injuries	66.3
Physical Health Not Good	88.1
Stroke	70.4
Health Risk Behaviors	—

Binge Drinking	47.1
Current Smoker	93.7
No Leisure Time for Physical Activity	94.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	61.0
Elderly	21.1
English Speaking	59.2
Foreign-born	57.0
Outdoor Workers	98.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	32.9
Traffic Density	94.4
Traffic Access	87.4
Other Indices	—
Hardship	13.5
Other Decision Support	—
2016 Voting	30.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52
Healthy Places Index Score for Project Location (b)	88
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Utility Information	SB 100 - LADWP Year 2025 Carbon Intensity Factor
Land Use	See Project Description
Construction: Construction Phases	See construction assumptions
Construction: Off-Road Equipment	See construction assumptions
Operations: Vehicle Data	See trip generation

UCLA Research Park - Existing Buildout Detailed Report

Table of Contents

- 1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
 - 2.4. Operations Emissions Compared Against Thresholds
 - 2.5. Operations Emissions by Sector, Unmitigated
 - 2.6. Operations Emissions by Sector, Mitigated
- 4. Operations Emissions Details
 - 4.1. Mobile Emissions by Land Use
 - 4.1.1. Unmitigated
 - 4.1.2. Mitigated
 - 4.2. Energy
 - 4.2.1. Electricity Emissions By Land Use - Unmitigated
 - 4.2.2. Electricity Emissions By Land Use - Mitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.2.4. Natural Gas Emissions By Land Use - Mitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.3.2. Mitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.4.2. Mitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.5.2. Mitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.6.2. Mitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.7.2. Mitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.8.2. Mitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.9.2. Mitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

8.1. Justifications

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	UCLA Research Park - Existing Buildout
Operational Year	2030
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.7
Precipitation (days)	20
Location	34.04059616575768, -118.4261202729422
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4470
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas
App Version	2022.1.1.35

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
Enclosed Parking with Elevator	2,219	Space	20	489,200	0.00	—	—	—

Regional Shopping Center	744	1000sqft	17	744,385	2,000	—	—	—
--------------------------	-----	----------	----	---------	-------	---	---	---

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-B	Water Active Demolition Sites
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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	76	73	23	291	0.51	0.47	48	48	0.43	12	13	527	61,272	61,799	58	2.9	113	64,232
Mit.	76	73	23	291	0.51	0.47	48	48	0.43	12	13	527	61,272	61,799	58	2.9	113	64,232
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	66	63	24	233	0.48	0.38	48	48	0.36	12	13	527	59,016	59,543	58	3.1	6.4	61,913
Mit.	66	63	24	233	0.48	0.38	48	48	0.36	12	13	527	59,016	59,543	58	3.1	6.4	61,913
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	72	69	24	262	0.46	0.43	44	44	0.39	11	12	527	56,241	56,768	58	3.0	47	59,143
Mit.	72	69	24	262	0.46	0.43	44	44	0.39	11	12	527	56,241	56,768	58	3.0	47	59,143
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13	13	4.3	48	0.08	0.08	8.0	8.1	0.07	2.0	2.1	87	9,311	9,399	9.6	0.49	7.8	9,792
Mit.	13	13	4.3	48	0.08	0.08	8.0	8.1	0.07	2.0	2.1	87	9,311	9,399	9.6	0.49	7.8	9,792
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	48	46	21	237	0.50	0.30	48	48	0.28	12	12	—	50,862	50,862	3.4	2.5	110	51,801
Area	28	27	0.45	54	< 0.005	0.10	—	0.10	0.07	—	0.07	—	221	221	0.01	< 0.005	—	221
Energy	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	9,837	9,837	1.3	0.18	—	9,923
Water	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809
Waste	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	76	73	23	291	0.51	0.47	48	48	0.43	12	13	527	61,272	61,799	58	2.9	113	64,232
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	48	45	23	232	0.48	0.30	48	48	0.28	12	12	—	48,826	48,826	3.6	2.6	2.8	49,704
Area	18	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	9,837	9,837	1.3	0.18	—	9,923
Water	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809

Waste	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	66	63	24	233	0.48	0.38	48	48	0.36	12	13	527	59,016	59,543	58	3.1	6.4	61,913
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	47	44	22	224	0.45	0.29	44	44	0.27	11	11	—	45,901	45,901	3.5	2.5	44	46,782
Area	25	24	0.31	37	< 0.005	0.07	—	0.07	0.05	—	0.05	—	151	151	0.01	< 0.005	—	152
Energy	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	9,837	9,837	1.3	0.18	—	9,923
Water	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809
Waste	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	72	69	24	262	0.46	0.43	44	44	0.39	11	12	527	56,241	56,768	58	3.0	47	59,143
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.6	8.1	4.1	41	0.08	0.05	8.0	8.0	0.05	2.0	2.1	—	7,599	7,599	0.58	0.42	7.3	7,745
Area	4.5	4.4	0.06	6.7	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25	25	< 0.005	< 0.005	—	25
Energy	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	1,629	1,629	0.22	0.03	—	1,643
Water	—	—	—	—	—	—	—	—	—	—	—	17	58	76	1.8	0.04	—	134
Waste	—	—	—	—	—	—	—	—	—	—	—	70	0.00	70	7.0	0.00	—	244
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.59	0.59
Total	13	13	4.3	48	0.08	0.08	8.0	8.1	0.07	2.0	2.1	87	9,311	9,399	9.6	0.49	7.8	9,792

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	48	46	21	237	0.50	0.30	48	48	0.28	12	12	—	50,862	50,862	3.4	2.5	110	51,801
Area	28	27	0.45	54	< 0.005	0.10	—	0.10	0.07	—	0.07	—	221	221	0.01	< 0.005	—	221

Energy	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	9,837	9,837	1.3	0.18	—	9,923
Water	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809
Waste	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	76	73	23	291	0.51	0.47	48	48	0.43	12	13	527	61,272	61,799	58	2.9	113	64,232
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	48	45	23	232	0.48	0.30	48	48	0.28	12	12	—	48,826	48,826	3.6	2.6	2.8	49,704
Area	18	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	9,837	9,837	1.3	0.18	—	9,923
Water	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809
Waste	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	66	63	24	233	0.48	0.38	48	48	0.36	12	13	527	59,016	59,543	58	3.1	6.4	61,913
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	47	44	22	224	0.45	0.29	44	44	0.27	11	11	—	45,901	45,901	3.5	2.5	44	46,782
Area	25	24	0.31	37	< 0.005	0.07	—	0.07	0.05	—	0.05	—	151	151	0.01	< 0.005	—	152
Energy	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	9,837	9,837	1.3	0.18	—	9,923
Water	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809
Waste	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	72	69	24	262	0.46	0.43	44	44	0.39	11	12	527	56,241	56,768	58	3.0	47	59,143
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.6	8.1	4.1	41	0.08	0.05	8.0	8.0	0.05	2.0	2.1	—	7,599	7,599	0.58	0.42	7.3	7,745
Area	4.5	4.4	0.06	6.7	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25	25	< 0.005	< 0.005	—	25
Energy	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	1,629	1,629	0.22	0.03	—	1,643
Water	—	—	—	—	—	—	—	—	—	—	—	17	58	76	1.8	0.04	—	134

Waste	—	—	—	—	—	—	—	—	—	—	—	70	0.00	70	7.0	0.00	—	244
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.59	0.59
Total	13	13	4.3	48	0.08	0.08	8.0	8.1	0.07	2.0	2.1	87	9,311	9,399	9.6	0.49	7.8	9,792

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	48	46	21	237	0.50	0.30	48	48	0.28	12	12	—	50,862	50,862	3.4	2.5	110	51,801
Total	48	46	21	237	0.50	0.30	48	48	0.28	12	12	—	50,862	50,862	3.4	2.5	110	51,801
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Regional	48	45	23	232	0.48	0.30	48	48	0.28	12	12	—	48,826	48,826	3.6	2.6	2.8	49,704
Total	48	45	23	232	0.48	0.30	48	48	0.28	12	12	—	48,826	48,826	3.6	2.6	2.8	49,704
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	8.6	8.1	4.1	41	0.08	0.05	8.0	8.0	0.05	2.0	2.1	—	7,599	7,599	0.58	0.42	7.3	7,745
Total	8.6	8.1	4.1	41	0.08	0.05	8.0	8.0	0.05	2.0	2.1	—	7,599	7,599	0.58	0.42	7.3	7,745

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	48	46	21	237	0.50	0.30	48	48	0.28	12	12	—	50,862	50,862	3.4	2.5	110	51,801
Total	48	46	21	237	0.50	0.30	48	48	0.28	12	12	—	50,862	50,862	3.4	2.5	110	51,801

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	48	45	23	232	0.48	0.30	48	48	0.28	12	12	—	48,826	48,826	3.6	2.6	2.8	49,704
Total	48	45	23	232	0.48	0.30	48	48	0.28	12	12	—	48,826	48,826	3.6	2.6	2.8	49,704
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	8.6	8.1	4.1	41	0.08	0.05	8.0	8.0	0.05	2.0	2.1	—	7,599	7,599	0.58	0.42	7.3	7,745
Total	8.6	8.1	4.1	41	0.08	0.05	8.0	8.0	0.05	2.0	2.1	—	7,599	7,599	0.58	0.42	7.3	7,745

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

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

Enclose Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	1,697	1,697	0.24	0.03	—	1,713
Regiona l Shoppin g Center	—	—	—	—	—	—	—	—	—	—	—	—	6,965	6,965	0.99	0.14	—	7,031
Total	—	—	—	—	—	—	—	—	—	—	—	—	8,662	8,662	1.2	0.17	—	8,745
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclose d Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	1,697	1,697	0.24	0.03	—	1,713
Regiona l Shoppin g Center	—	—	—	—	—	—	—	—	—	—	—	—	6,965	6,965	0.99	0.14	—	7,031
Total	—	—	—	—	—	—	—	—	—	—	—	—	8,662	8,662	1.2	0.17	—	8,745
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclose d Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	281	281	0.04	0.01	—	284
Regiona l Shoppin g Center	—	—	—	—	—	—	—	—	—	—	—	—	1,153	1,153	0.16	0.02	—	1,164
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,434	1,434	0.20	0.03	—	1,448

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	1,697	1,697	0.24	0.03	—	1,713
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	6,965	6,965	0.99	0.14	—	7,031
Total	—	—	—	—	—	—	—	—	—	—	—	—	8,662	8,662	1.2	0.17	—	8,745
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	1,697	1,697	0.24	0.03	—	1,713
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	6,965	6,965	0.99	0.14	—	7,031
Total	—	—	—	—	—	—	—	—	—	—	—	—	8,662	8,662	1.2	0.17	—	8,745
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	281	281	0.04	0.01	—	284
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	1,153	1,153	0.16	0.02	—	1,164
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,434	1,434	0.20	0.03	—	1,448

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Total	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Total	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	194	194	0.02	< 0.005	—	195
Total	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	194	194	0.02	< 0.005	—	195

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Regional	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Total	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Total	0.11	0.05	0.98	0.83	0.01	0.07	—	0.07	0.07	—	0.07	—	1,175	1,175	0.10	< 0.005	—	1,178
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	194	194	0.02	< 0.005	—	195
Total	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	194	194	0.02	< 0.005	—	195

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	16	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	2.0	2.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	9.6	8.8	0.45	54	< 0.005	0.10	—	0.10	0.07	—	0.07	—	221	221	0.01	< 0.005	—	221
Total	28	27	0.45	54	< 0.005	0.10	—	0.10	0.07	—	0.07	—	221	221	0.01	< 0.005	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	16	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	2.0	2.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	18	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	2.9	2.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.37	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	1.2	1.1	0.06	6.7	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25	25	< 0.005	< 0.005	—	25
Total	4.5	4.4	0.06	6.7	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25	25	< 0.005	< 0.005	—	25

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	16	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	2.0	2.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	9.6	8.8	0.45	54	< 0.005	0.10	—	0.10	0.07	—	0.07	—	221	221	0.01	< 0.005	—	221
Total	28	27	0.45	54	< 0.005	0.10	—	0.10	0.07	—	0.07	—	221	221	0.01	< 0.005	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	16	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	2.0	2.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	18	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consum Products	2.9	2.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coating s	0.37	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landsca pe Equipm ent	1.2	1.1	0.06	6.7	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25	25	< 0.005	< 0.005	—	25
Total	4.5	4.4	0.06	6.7	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25	25	< 0.005	< 0.005	—	25

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclose d Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regiona l Shoppin g Center	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809
Total	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Enclosed	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809
Total	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	17	58	76	1.8	0.04	—	134
Total	—	—	—	—	—	—	—	—	—	—	—	17	58	76	1.8	0.04	—	134

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809
Total	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809
Total	—	—	—	—	—	—	—	—	—	—	—	106	353	459	11	0.26	—	809
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	17	58	76	1.8	0.04	—	134
Total	—	—	—	—	—	—	—	—	—	—	—	17	58	76	1.8	0.04	—	134

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Total	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Total	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	70	0.00	70	7.0	0.00	—	244
Total	—	—	—	—	—	—	—	—	—	—	—	70	0.00	70	7.0	0.00	—	244

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Total	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474

Total	—	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42	0.00	—	1,474
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	70	0.00	70	7.0	0.00	—	244
Total	—	—	—	—	—	—	—	—	—	—	—	70	0.00	70	7.0	0.00	—	244

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.59	0.59
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.59	0.59

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.6	3.6

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.59	0.59
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.59	0.59

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.7.2. Mitigated

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

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.8.2. Mitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.9.2. Mitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

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

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

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

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	VM/Weekday	VM/Saturday	VM/Sunday	VM/Year
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	18,976	18,976	18,976	6,926,190	60,582	67,690	67,690	22,853,712

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VM/Weekday	VM/Saturday	VM/Sunday	VM/Year
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	18,976	18,976	18,976	6,926,190	60,582	67,690	67,690	22,853,712

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Enclosed Parking with Elevator	Wood Fireplaces	0	0
Enclosed Parking with Elevator	Gas Fireplaces	0	0
Enclosed Parking with Elevator	Propane Fireplaces	0	0
Enclosed Parking with Elevator	Electric Fireplaces	0	0
Enclosed Parking with Elevator	No Fireplaces	0	0
Enclosed Parking with Elevator	Conventional Wood Stoves	0	0
Enclosed Parking with Elevator	Catalytic Wood Stoves	0	0
Enclosed Parking with Elevator	Non-Catalytic Wood Stoves	0	0
Enclosed Parking with Elevator	Pellet Wood Stoves	0	0

Regional Shopping Center	Wood Fireplaces	0	0
Regional Shopping Center	Gas Fireplaces	0	0
Regional Shopping Center	Propane Fireplaces	0	0
Regional Shopping Center	Electric Fireplaces	0	0
Regional Shopping Center	No Fireplaces	0	0
Regional Shopping Center	Conventional Wood Stoves	0	0
Regional Shopping Center	Catalytic Wood Stoves	0	0
Regional Shopping Center	Non-Catalytic Wood Stoves	0	0
Regional Shopping Center	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

—	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
undefined	0.00	0.00	1,155,725	376,542	52,196

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)
Enclosed Parking with Elevator	1,805,848	343	0.0489	0.0069	0.00
Regional Shopping Center	7,411,496	343	0.0489	0.0069	3,665,458

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)
Enclosed Parking with Elevator	1,805,848	343	0.0489	0.0069	0.00
Regional Shopping Center	7,411,496	343	0.0489	0.0069	3,665,458

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Enclosed Parking with Elevator	0.00	0.00
Regional Shopping Center	55,138,474	28,049

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Enclosed Parking with Elevator	0.00	0.00
Regional Shopping Center	55,138,474	28,049

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Enclosed Parking with Elevator	0.00	0.00
Regional Shopping Center	782	0.00

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Enclosed Parking with Elevator	0.00	0.00
Regional Shopping Center	782	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.0	4.0	18
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.0	4.0	18
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

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	5.7	annual days of extreme heat
Extreme Precipitation	5.5	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	51
AQ-PM	69
AQ-DPM	68
Drinking Water	53
Lead Risk Housing	60
Pesticides	0.00
Toxic Releases	76
Traffic	92
Effect Indicators	—
CleanUp Sites	12
Groundwater	75
Haz Waste Facilities/Generators	62
Impaired Water Bodies	0.00
Solid Waste	59
Sensitive Population	—
Asthma	27
Cardio-vascular	51
Low Birth Weights	52
Socioeconomic Factor Indicators	—

Education	17
Housing	78
Linguistic	—
Poverty	30
Unemployment	17

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	83.52367509
Employed	92.6344155
Median HI	85.06351854
Education	—
Bachelor's or higher	94.19992301
High school enrollment	7.442576671
Preschool enrollment	95.7141024
Transportation	—
Auto Access	20.53124599
Active commuting	60.74682407
Social	—
2-parent households	85.19183883
Voting	66.58539715
Neighborhood	—
Alcohol availability	41.01116387
Park access	59.60477351
Retail density	99.76902348
Supermarket access	58.09059412

Tree canopy	75.18285641
Housing	—
Homeownership	50.73784165
Housing habitability	39.44565636
Low-inc homeowner severe housing cost burden	31.93891954
Low-inc renter severe housing cost burden	68.25356089
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	89.88836135
Arthritis	47.0
Asthma ER Admissions	89.9
High Blood Pressure	38.5
Cancer (excluding skin)	12.2
Asthma	91.1
Coronary Heart Disease	54.4
Chronic Obstructive Pulmonary Disease	81.8
Diagnosed Diabetes	84.4
Life Expectancy at Birth	67.7
Cognitively Disabled	28.0
Physically Disabled	13.7
Heart Attack ER Admissions	67.4
Mental Health Not Good	93.4
Chronic Kidney Disease	64.9
Obesity	88.4
Pedestrian Injuries	66.3
Physical Health Not Good	88.1
Stroke	70.4
Health Risk Behaviors	—

Binge Drinking	47.1
Current Smoker	93.7
No Leisure Time for Physical Activity	94.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	61.0
Elderly	21.1
English Speaking	59.2
Foreign-born	57.0
Outdoor Workers	98.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	32.9
Traffic Density	94.4
Traffic Access	87.4
Other Indices	—
Hardship	13.5
Other Decision Support	—
2016 Voting	30.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52
Healthy Places Index Score for Project Location (b)	88
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Utility Information	SB 100 - LADWP Year 2030 Carbon Intensity Factor
Land Use	See Project Description
Construction: Construction Phases	See construction assumptions
Construction: Off-Road Equipment	See construction assumptions
Operations: Vehicle Data	See trip generation

UCLA Research Park - Project Detailed Report

Table of Contents

- 1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
 - 2.1. Construction Emissions Compared Against Thresholds
 - 2.2. Construction Emissions by Year
 - 2.2.1. Total Construction Emissions by Year, Unmitigated
 - 2.2.2. Onsite Construction Emissions by Year, Unmitigated
 - 2.2.3. Offsite Construction Emissions by Year, Unmitigated
 - 2.2.4. Total Construction Emissions by Year, Mitigated
 - 2.2.5. Onsite Construction Emissions by Year, Mitigated
 - 2.2.6. Offsite Construction Emissions by Year, Mitigated
 - 2.3. Operations Emissions Compared Against Thresholds
 - 2.4. Operations Emissions by Sector, Unmitigated

2.5. Operations Emissions by Sector, Mitigated

3. Construction Emissions Details

3.1. Demolition (2026)

3.1.1. Onsite - Unmitigated

3.1.2. Offsite - Unmitigated

3.1.3. Onsite - Mitigated

3.1.4. Offsite - Mitigated

3.2. Grading/Excavation (2026)

3.2.1. Onsite - Unmitigated

3.2.2. Offsite - Unmitigated

3.2.3. Onsite - Mitigated

3.2.4. Offsite - Mitigated

3.3. Building Construction (2027)

3.3.1. Onsite - Unmitigated

3.3.2. Offsite - Unmitigated

3.3.3. Onsite - Mitigated

3.3.4. Offsite - Mitigated

3.4. Building Construction (2028)

3.4.1. Onsite - Unmitigated

3.4.2. Offsite - Unmitigated

3.4.3. Onsite - Mitigated

3.4.4. Offsite - Mitigated

3.5. Building Construction (2029)

3.5.1. Onsite - Unmitigated

3.5.2. Offsite - Unmitigated

3.5.3. Onsite - Mitigated

3.5.4. Offsite - Mitigated

3.6. Building Construction (2030)

3.6.1. Onsite - Unmitigated

3.6.2. Offsite - Unmitigated

3.6.3. Onsite - Mitigated

3.6.4. Offsite - Mitigated

3.7. Offsite Improvements (2030)

3.7.1. Onsite - Unmitigated

3.7.2. Offsite - Unmitigated

3.7.3. Onsite - Mitigated

3.7.4. Offsite - Mitigated

3.8. Paving (2030)

3.8.1. Onsite - Unmitigated

3.8.2. Offsite - Unmitigated

3.8.3. Onsite - Mitigated

3.8.4. Offsite - Mitigated

3.9. Architectural Coating (2027)

3.9.1. Onsite - Unmitigated

3.9.2. Offsite - Unmitigated

3.9.3. Onsite - Mitigated

3.9.4. Offsite - Mitigated

3.10. Architectural Coating (2028)

3.10.1. Onsite - Unmitigated

3.10.2. Offsite - Unmitigated

3.10.3. Onsite - Mitigated

3.10.4. Offsite - Mitigated

3.11. Architectural Coating (2029)

3.11.1. Onsite - Unmitigated

3.11.2. Offsite - Unmitigated

3.11.3. Onsite - Mitigated

3.11.4. Offsite - Mitigated

3.12. Architectural Coating (2030)

3.12.1. Onsite - Unmitigated

3.12.2. Offsite - Unmitigated

3.12.3. Onsite - Mitigated

3.12.4. Offsite - Mitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.1.2. Mitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.2. Electricity Emissions By Land Use - Mitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.2.4. Natural Gas Emissions By Land Use - Mitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.3.2. Mitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.4.2. Mitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.5.2. Mitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.6.2. Mitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.7.2. Mitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.8.2. Mitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.9.2. Mitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

8.1. Justifications

8.2. Project Characteristics

8.2.2. Utility Information

8.3. Land Use

8.4. Construction

8.4.1. Construction Phases

8.4.6. Trips and VMT

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

8.5.3. Energy Usage

8.5.8. Stationary Sources

8.5.8.1. Emergency Generators and Fire Pumps

8.5.8.2. Generators + Pumps EF

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	UCLA Research Park - Project
Construction Start Date	7/1/2026
Operational Year	2030
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70000
Precipitation (days)	19.6000
Location	34.04059616575768, -118.4261202729422
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4470
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas
App Version	2022.1.1.43

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
Office Park	589.200	1000sqft	9.20000	589,200	2,000.00	—	—	—

Research & Development	271.200	1000sqft	6.22590	271,200	0.00000	—	—	—
Enclosed Parking with Elevator	1,113.00	Space	10.0170	489,200	0.00000	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-B	Water Active Demolition Sites
Energy	E-1	Buildings Exceed 2019 Title 24 Building Envelope Energy Efficiency Standards
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power
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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	17.9986	16.7711	49.1659	114.425	0.15217	1.41184	14.1223	15.5342	1.30023	3.33677	4.63700	—	28,575.5	28,575.5	0.81970	0.89269	43.8020	28,896.1
Mit.	17.9986	16.7711	49.1659	114.425	0.15217	1.41184	14.1223	15.5342	1.30023	3.33677	4.63700	—	28,575.5	28,575.5	0.81970	0.89269	43.8020	28,896.1
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	15.5895	14.6891	35.1747	86.1307	0.10866	0.94737	13.5187	14.4661	0.87219	3.18094	4.05314	—	23,084.3	23,084.3	0.57571	0.69613	1.13528	23,307.0
Mit.	15.5895	14.6891	35.1747	86.1307	0.10866	0.94737	13.5187	14.4661	0.87219	3.18094	4.05314	—	23,084.3	23,084.3	0.57571	0.69613	1.13528	23,307.0
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.7399	11.8080	23.4845	70.4356	0.05518	0.57480	11.3112	11.8551	0.52927	2.65833	3.18034	—	16,364.9	16,364.9	0.37196	0.55391	16.1821	16,555.0
Mit.	12.7399	11.8080	23.4845	70.4356	0.05518	0.57480	11.3112	11.8551	0.52927	2.65833	3.18034	—	16,364.9	16,364.9	0.37196	0.55391	16.1821	16,555.0
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.32504	2.15496	4.28592	12.8545	0.01007	0.10490	2.06430	2.16356	0.09659	0.48515	0.58041	—	2,709.39	2,709.39	0.06158	0.09171	2.67914	2,740.86
Mit.	2.32504	2.15496	4.28592	12.8545	0.01007	0.10490	2.06430	2.16356	0.09659	0.48515	0.58041	—	2,709.39	2,709.39	0.06158	0.09171	2.67914	2,740.86
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year

2.2.1. Total Construction Emissions by Year, Unmitigated

Includes both onsite and offsite emissions.

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.26099	3.43073	26.8256	39.7754	0.08518	0.86321	12.0447	12.9079	0.79418	1.54545	2.33963	—	11,188.8	11,188.8	0.51340	0.64654	12.5285	11,406.8
2027	14.9074	13.8428	26.4930	88.7497	0.06419	0.67060	13.3276	13.9982	0.61749	3.13472	3.75221	—	19,595.6	19,595.6	0.81970	0.64444	43.8020	19,852.0
2028	14.6421	13.5934	25.4996	84.9649	0.06420	0.59099	13.3276	13.9186	0.54425	3.13472	3.67897	—	19,337.6	19,337.6	0.38310	0.64379	39.4773	19,578.5
2029	14.4020	13.3709	24.3577	81.1311	0.06421	0.53560	13.3276	13.8632	0.49329	3.13472	3.62802	—	19,092.1	19,092.1	0.38246	0.64379	35.4346	19,329.0
2030	17.9986	16.7711	49.1659	114.425	0.15217	1.41184	14.1223	15.5342	1.30023	3.33677	4.63700	—	28,575.5	28,575.5	0.76029	0.89269	35.5497	28,896.1

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.25446	3.42346	27.0575	38.8567	0.08518	0.86321	12.0447	12.9079	0.79418	1.54545	2.33963	—	11,120.5	11,120.5	0.51560	0.64654	0.32514	11,326.4
2027	14.8620	13.7753	27.3923	79.5897	0.06419	0.67060	13.3276	13.9982	0.61749	3.13472	3.75221	—	18,905.8	18,905.8	0.43389	0.64444	1.13528	19,109.8
2028	14.6188	13.5700	26.0138	76.5250	0.06420	0.59099	13.3276	13.9186	0.54425	3.13472	3.67897	—	18,661.1	18,661.1	0.40515	0.64445	1.02108	18,864.3
2029	13.9481	13.3255	24.8505	73.0390	0.06421	0.53560	13.3276	13.8632	0.49329	3.13472	3.62802	—	18,428.6	18,428.6	0.40451	0.64445	0.91856	18,631.6
2030	15.5895	14.6891	35.1747	86.1307	0.10866	0.94737	13.5187	14.4661	0.87219	3.18094	4.05314	—	23,084.3	23,084.3	0.57571	0.69613	0.83825	23,307.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.52511	1.25716	9.17842	14.1436	0.02555	0.31616	2.09614	2.41230	0.29046	0.30426	0.59472	—	3,293.21	3,293.21	0.14473	0.12955	1.34868	3,336.78
2027	12.7399	11.8080	23.4845	70.4356	0.05502	0.57480	11.2803	11.8551	0.52927	2.65107	3.18034	—	16,364.9	16,364.9	0.37196	0.55238	16.1821	16,555.0
2028	12.5463	11.6449	22.3445	67.6440	0.05518	0.50795	11.3112	11.8192	0.46778	2.65833	3.12611	—	16,196.6	16,196.6	0.34828	0.55391	14.6729	16,385.0
2029	11.9372	11.4035	21.3052	64.4900	0.05503	0.45909	11.2803	11.7394	0.42282	2.65107	3.07389	—	15,949.9	15,949.9	0.34678	0.55183	13.1375	16,136.1
2030	6.95297	6.52355	17.0199	40.4543	0.05237	0.46867	5.75897	6.22764	0.43154	1.35597	1.78751	—	10,573.6	10,573.6	0.27101	0.32388	6.11432	10,683.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.27833	0.22943	1.67506	2.58121	0.00466	0.05770	0.38254	0.44024	0.05301	0.05553	0.10854	—	545.228	545.228	0.02396	0.02145	0.22329	552.442
2027	2.32504	2.15496	4.28592	12.8545	0.01004	0.10490	2.05866	2.16356	0.09659	0.48382	0.58041	—	2,709.39	2,709.39	0.06158	0.09145	2.67914	2,740.86
2028	2.28970	2.12520	4.07786	12.3450	0.01007	0.09270	2.06430	2.15700	0.08537	0.48515	0.57051	—	2,681.53	2,681.53	0.05766	0.09171	2.42926	2,712.73
2029	2.17854	2.08115	3.88820	11.7694	0.01004	0.08378	2.05866	2.14244	0.07717	0.48382	0.56098	—	2,640.68	2,640.68	0.05741	0.09136	2.17507	2,671.52
2030	1.26892	1.19055	3.10612	7.38291	0.00956	0.08553	1.05101	1.13654	0.07876	0.24747	0.32622	—	1,750.59	1,750.59	0.04487	0.05362	1.01230	1,768.70

2.2.2. Onsite Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.61221	3.00759	22.5162	31.7741	0.06194	0.81818	9.80531	10.6235	0.75275	0.98349	1.73624	—	6,431.51	6,431.51	0.28133	0.06450	0.05035	6,457.81
2027	10.8237	10.2653	22.0553	28.2149	0.05744	0.66385	0.00000	0.66385	0.61074	0.00000	0.61074	—	5,388.15	5,388.15	0.21857	0.04371	0.00000	5,406.64

2028	10.6908	10.1549	21.1511	28.1053	0.05746	0.58424	0.00000	0.58424	0.53750	0.00000	0.53750	—	5,389.39	5,389.39	0.21862	0.04372	0.00000	5,407.89
2029	10.5830	10.0654	20.4848	27.9533	0.05746	0.52885	0.00000	0.52885	0.48655	0.00000	0.48655	—	5,389.83	5,389.83	0.21864	0.04373	0.00000	5,408.33
2030	14.5483	13.4683	44.4211	62.2742	0.13553	1.39520	0.00000	1.39520	1.28358	0.00000	1.28358	—	13,461.3	13,461.3	0.54605	0.10921	0.00000	13,507.5
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.60930	3.00541	22.5396	31.7850	0.06194	0.81818	9.80531	10.6235	0.75275	0.98349	1.73624	—	6,432.45	6,432.45	0.28133	0.06450	0.00131	6,458.71
2027	10.8237	10.2653	22.0553	28.2149	0.05744	0.66385	0.00000	0.66385	0.61074	0.00000	0.61074	—	5,388.15	5,388.15	0.21857	0.04371	0.00000	5,406.64
2028	10.6908	10.1549	21.1511	28.1053	0.05746	0.58424	0.00000	0.58424	0.53750	0.00000	0.53750	—	5,389.39	5,389.39	0.21862	0.04372	0.00000	5,407.89
2029	10.5830	10.0654	20.4848	27.9533	0.05746	0.52885	0.00000	0.52885	0.48655	0.00000	0.48655	—	5,389.83	5,389.83	0.21864	0.04373	0.00000	5,408.33
2030	12.3185	11.5222	31.1215	43.3906	0.10101	0.93972	0.00000	0.93972	0.86455	0.00000	0.86455	—	10,010.8	10,010.8	0.40608	0.08122	0.00000	10,045.2
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.32952	1.11035	8.28676	11.7034	0.02148	0.30826	1.45130	1.75956	0.28360	0.14675	0.43035	—	2,211.94	2,211.94	0.09287	0.01984	0.00333	2,220.17
2027	9.27749	8.79883	18.9045	24.1842	0.04924	0.56901	0.00000	0.56901	0.52349	0.00000	0.52349	—	4,618.41	4,618.41	0.18734	0.03747	0.00000	4,634.26
2028	9.18864	8.72806	18.1792	24.1562	0.04938	0.50215	0.00000	0.50215	0.46198	0.00000	0.46198	—	4,632.14	4,632.14	0.18790	0.03758	0.00000	4,648.03
2029	9.07112	8.62749	17.5584	23.9600	0.04925	0.45330	0.00000	0.45330	0.41704	0.00000	0.41704	—	4,619.86	4,619.86	0.18740	0.03748	0.00000	4,635.71
2030	5.55291	5.17415	15.1186	21.1273	0.04784	0.46414	0.00000	0.46414	0.42701	0.00000	0.42701	—	4,744.86	4,744.86	0.19247	0.03849	0.00000	4,761.14
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.24264	0.20264	1.51233	2.13587	0.00392	0.05626	0.26486	0.32112	0.05176	0.02678	0.07854	—	366.211	366.211	0.01538	0.00329	0.00055	367.575
2027	1.69314	1.60579	3.45008	4.41361	0.00899	0.10384	0.00000	0.10384	0.09554	0.00000	0.09554	—	764.631	764.631	0.03102	0.00620	0.00000	767.255
2028	1.67693	1.59287	3.31770	4.40851	0.00901	0.09164	0.00000	0.09164	0.08431	0.00000	0.08431	—	766.903	766.903	0.03111	0.00622	0.00000	769.535
2029	1.65548	1.57452	3.20442	4.37270	0.00899	0.08273	0.00000	0.08273	0.07611	0.00000	0.07611	—	764.870	764.870	0.03103	0.00621	0.00000	767.495
2030	1.01341	0.94428	2.75914	3.85574	0.00873	0.08471	0.00000	0.08471	0.07793	0.00000	0.07793	—	785.565	785.565	0.03187	0.00637	0.00000	788.261

2.2.3. Offsite Construction Emissions by Year, Unmitigated

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

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

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.64878	0.42314	4.30936	8.00129	0.02324	0.04503	2.23935	2.28438	0.04143	0.56196	0.60339	—	4,757.26	4,757.26	0.23206	0.58204	12.4782	4,948.99
2027	4.08362	3.57749	4.43768	60.5348	0.00675	0.00675	13.3276	13.3344	0.00675	3.13472	3.14147	—	14,207.5	14,207.5	0.60113	0.60072	43.8020	14,445.3
2028	3.95135	3.43846	4.34849	56.8596	0.00675	0.00675	13.3276	13.3344	0.00675	3.13472	3.14147	—	13,948.2	13,948.2	0.16449	0.60006	39.4773	14,170.6
2029	3.81907	3.30552	3.87282	53.1777	0.00675	0.00675	13.3276	13.3344	0.00675	3.13472	3.14147	—	13,702.3	13,702.3	0.16383	0.60006	35.4346	13,920.6
2030	3.45030	3.30276	4.74475	52.1509	0.01664	0.01664	14.1223	14.1390	0.01664	3.33677	3.35341	—	15,114.2	15,114.2	0.21425	0.78348	35.5497	15,388.6
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.64517	0.41805	4.51785	7.07166	0.02324	0.04503	2.23935	2.28438	0.04143	0.56196	0.60339	—	4,688.02	4,688.02	0.23427	0.58204	0.32384	4,867.65
2027	4.03821	3.51002	5.33704	51.3748	0.00675	0.00675	13.3276	13.3344	0.00675	3.13472	3.14147	—	13,517.7	13,517.7	0.21533	0.60072	1.13528	13,703.2
2028	3.92798	3.41509	4.86269	48.4198	0.00675	0.00675	13.3276	13.3344	0.00675	3.13472	3.14147	—	13,271.7	13,271.7	0.18653	0.60072	1.02108	13,456.4
2029	3.36514	3.26011	4.36564	45.0857	0.00675	0.00675	13.3276	13.3344	0.00675	3.13472	3.14147	—	13,038.7	13,038.7	0.18587	0.60072	0.91856	13,223.3
2030	3.27107	3.16696	4.05323	42.7401	0.00765	0.00765	13.5187	13.5263	0.00765	3.18094	3.18859	—	13,073.4	13,073.4	0.16962	0.61492	0.83825	13,261.8
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.19560	0.14680	0.89167	2.44024	0.00406	0.00790	0.64483	0.65273	0.00686	0.15751	0.16437	—	1,081.27	1,081.27	0.05186	0.10971	1.34535	1,116.60
2027	3.46245	3.00916	4.57993	46.2514	0.00578	0.00578	11.2803	11.2861	0.00578	2.65107	2.65685	—	11,746.5	11,746.5	0.18462	0.51492	16.1821	11,920.7
2028	3.35768	2.91686	4.16527	43.4877	0.00580	0.00580	11.3112	11.3170	0.00580	2.65833	2.66413	—	11,564.4	11,564.4	0.16038	0.51633	14.6729	11,737.0
2029	2.86607	2.77605	3.74674	40.5300	0.00578	0.00578	11.2803	11.2861	0.00578	2.65107	2.65685	—	11,330.0	11,330.0	0.15938	0.51435	13.1375	11,500.4
2030	1.40007	1.34939	1.90129	19.3270	0.00453	0.00453	5.75897	5.76350	0.00453	1.35597	1.36050	—	5,828.79	5,828.79	0.07853	0.28539	6.11432	5,921.91
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.03570	0.02679	0.16273	0.44534	0.00074	0.00144	0.11768	0.11912	0.00125	0.02874	0.03000	—	179.016	179.016	0.00859	0.01816	0.22274	184.866
2027	0.63190	0.54917	0.83584	8.44088	0.00106	0.00106	2.05866	2.05971	0.00106	0.48382	0.48488	—	1,944.76	1,944.76	0.03057	0.08525	2.67914	1,973.61
2028	0.61278	0.53233	0.76016	7.93651	0.00106	0.00106	2.06430	2.06536	0.00106	0.48515	0.48620	—	1,914.63	1,914.63	0.02655	0.08548	2.42926	1,943.19
2029	0.52306	0.50663	0.68378	7.39673	0.00106	0.00106	2.05866	2.05971	0.00106	0.48382	0.48488	—	1,875.81	1,875.81	0.02639	0.08516	2.17507	1,904.03
2030	0.25551	0.24626	0.34699	3.52718	0.00083	0.00083	1.05101	1.05184	0.00083	0.24747	0.24829	—	965.022	965.022	0.01300	0.04725	1.01230	980.440

2.2.4. Total Construction Emissions by Year, Mitigated

Includes both onsite and offsite emissions.

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.26099	3.43073	26.8256	39.7754	0.08518	0.86321	12.0447	12.9079	0.79418	1.54545	2.33963	—	11,188.8	11,188.8	0.51340	0.64654	12.5285	11,406.8
2027	14.9074	13.8428	26.4930	88.7497	0.06419	0.67060	13.3276	13.9982	0.61749	3.13472	3.75221	—	19,595.6	19,595.6	0.81970	0.64444	43.8020	19,852.0
2028	14.6421	13.5934	25.4996	84.9649	0.06420	0.59099	13.3276	13.9186	0.54425	3.13472	3.67897	—	19,337.6	19,337.6	0.38310	0.64379	39.4773	19,578.5
2029	14.4020	13.3709	24.3577	81.1311	0.06421	0.53560	13.3276	13.8632	0.49329	3.13472	3.62802	—	19,092.1	19,092.1	0.38246	0.64379	35.4346	19,329.0
2030	17.9986	16.7711	49.1659	114.425	0.15217	1.41184	14.1223	15.5342	1.30023	3.33677	4.63700	—	28,575.5	28,575.5	0.76029	0.89269	35.5497	28,896.1
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.25446	3.42346	27.0575	38.8567	0.08518	0.86321	12.0447	12.9079	0.79418	1.54545	2.33963	—	11,120.5	11,120.5	0.51560	0.64654	0.32514	11,326.4
2027	14.8620	13.7753	27.3923	79.5897	0.06419	0.67060	13.3276	13.9982	0.61749	3.13472	3.75221	—	18,905.8	18,905.8	0.43389	0.64444	1.13528	19,109.8
2028	14.6188	13.5700	26.0138	76.5250	0.06420	0.59099	13.3276	13.9186	0.54425	3.13472	3.67897	—	18,661.1	18,661.1	0.40515	0.64445	1.02108	18,864.3
2029	13.9481	13.3255	24.8505	73.0390	0.06421	0.53560	13.3276	13.8632	0.49329	3.13472	3.62802	—	18,428.6	18,428.6	0.40451	0.64445	0.91856	18,631.6
2030	15.5895	14.6891	35.1747	86.1307	0.10866	0.94737	13.5187	14.4661	0.87219	3.18094	4.05314	—	23,084.3	23,084.3	0.57571	0.69613	0.83825	23,307.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.52511	1.25716	9.17842	14.1436	0.02555	0.31616	2.09614	2.41230	0.29046	0.30426	0.59472	—	3,293.21	3,293.21	0.14473	0.12955	1.34868	3,336.78
2027	12.7399	11.8080	23.4845	70.4356	0.05502	0.57480	11.2803	11.8551	0.52927	2.65107	3.18034	—	16,364.9	16,364.9	0.37196	0.55238	16.1821	16,555.0
2028	12.5463	11.6449	22.3445	67.6440	0.05518	0.50795	11.3112	11.8192	0.46778	2.65833	3.12611	—	16,196.6	16,196.6	0.34828	0.55391	14.6729	16,385.0
2029	11.9372	11.4035	21.3052	64.4900	0.05503	0.45909	11.2803	11.7394	0.42282	2.65107	3.07389	—	15,949.9	15,949.9	0.34678	0.55183	13.1375	16,136.1
2030	6.95297	6.52355	17.0199	40.4543	0.05237	0.46867	5.75897	6.22764	0.43154	1.35597	1.78751	—	10,573.6	10,573.6	0.27101	0.32388	6.11432	10,683.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.27833	0.22943	1.67506	2.58121	0.00466	0.05770	0.38254	0.44024	0.05301	0.05553	0.10854	—	545.228	545.228	0.02396	0.02145	0.22329	552.442
2027	2.32504	2.15496	4.28592	12.8545	0.01004	0.10490	2.05866	2.16356	0.09659	0.48382	0.58041	—	2,709.39	2,709.39	0.06158	0.09145	2.67914	2,740.86

2028	2.28970	2.12520	4.07786	12.3450	0.01007	0.09270	2.06430	2.15700	0.08537	0.48515	0.57051	—	2,681.53	2,681.53	0.05766	0.09171	2.42926	2,712.73
2029	2.17854	2.08115	3.88820	11.7694	0.01004	0.08378	2.05866	2.14244	0.07717	0.48382	0.56098	—	2,640.68	2,640.68	0.05741	0.09136	2.17507	2,671.52
2030	1.26892	1.19055	3.10612	7.38291	0.00956	0.08553	1.05101	1.13654	0.07876	0.24747	0.32622	—	1,750.59	1,750.59	0.04487	0.05362	1.01230	1,768.70

2.2.5. Onsite 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.61221	3.00759	22.5162	31.7741	0.06194	0.81818	9.80531	10.6235	0.75275	0.98349	1.73624	—	6,431.51	6,431.51	0.28133	0.06450	0.05035	6,457.81
2027	10.8237	10.2653	22.0553	28.2149	0.05744	0.66385	0.00000	0.66385	0.61074	0.00000	0.61074	—	5,388.15	5,388.15	0.21857	0.04371	0.00000	5,406.64
2028	10.6908	10.1549	21.1511	28.1053	0.05746	0.58424	0.00000	0.58424	0.53750	0.00000	0.53750	—	5,389.39	5,389.39	0.21862	0.04372	0.00000	5,407.89
2029	10.5830	10.0654	20.4848	27.9533	0.05746	0.52885	0.00000	0.52885	0.48655	0.00000	0.48655	—	5,389.83	5,389.83	0.21864	0.04373	0.00000	5,408.33
2030	14.5483	13.4683	44.4211	62.2742	0.13553	1.39520	0.00000	1.39520	1.28358	0.00000	1.28358	—	13,461.3	13,461.3	0.54605	0.10921	0.00000	13,507.5
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.60930	3.00541	22.5396	31.7850	0.06194	0.81818	9.80531	10.6235	0.75275	0.98349	1.73624	—	6,432.45	6,432.45	0.28133	0.06450	0.00131	6,458.71
2027	10.8237	10.2653	22.0553	28.2149	0.05744	0.66385	0.00000	0.66385	0.61074	0.00000	0.61074	—	5,388.15	5,388.15	0.21857	0.04371	0.00000	5,406.64
2028	10.6908	10.1549	21.1511	28.1053	0.05746	0.58424	0.00000	0.58424	0.53750	0.00000	0.53750	—	5,389.39	5,389.39	0.21862	0.04372	0.00000	5,407.89
2029	10.5830	10.0654	20.4848	27.9533	0.05746	0.52885	0.00000	0.52885	0.48655	0.00000	0.48655	—	5,389.83	5,389.83	0.21864	0.04373	0.00000	5,408.33
2030	12.3185	11.5222	31.1215	43.3906	0.10101	0.93972	0.00000	0.93972	0.86455	0.00000	0.86455	—	10,010.8	10,010.8	0.40608	0.08122	0.00000	10,045.2
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.32952	1.11035	8.28676	11.7034	0.02148	0.30826	1.45130	1.75956	0.28360	0.14675	0.43035	—	2,211.94	2,211.94	0.09287	0.01984	0.00333	2,220.17
2027	9.27749	8.79883	18.9045	24.1842	0.04924	0.56901	0.00000	0.56901	0.52349	0.00000	0.52349	—	4,618.41	4,618.41	0.18734	0.03747	0.00000	4,634.26
2028	9.18864	8.72806	18.1792	24.1562	0.04938	0.50215	0.00000	0.50215	0.46198	0.00000	0.46198	—	4,632.14	4,632.14	0.18790	0.03758	0.00000	4,648.03
2029	9.07112	8.62749	17.5584	23.9600	0.04925	0.45330	0.00000	0.45330	0.41704	0.00000	0.41704	—	4,619.86	4,619.86	0.18740	0.03748	0.00000	4,635.71
2030	5.55291	5.17415	15.1186	21.1273	0.04784	0.46414	0.00000	0.46414	0.42701	0.00000	0.42701	—	4,744.86	4,744.86	0.19247	0.03849	0.00000	4,761.14

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.24264	0.20264	1.51233	2.13587	0.00392	0.05626	0.26486	0.32112	0.05176	0.02678	0.07854	—	366.211	366.211	0.01538	0.00329	0.00055	367.575
2027	1.69314	1.60579	3.45008	4.41361	0.00899	0.10384	0.00000	0.10384	0.09554	0.00000	0.09554	—	764.631	764.631	0.03102	0.00620	0.00000	767.255
2028	1.67693	1.59287	3.31770	4.40851	0.00901	0.09164	0.00000	0.09164	0.08431	0.00000	0.08431	—	766.903	766.903	0.03111	0.00622	0.00000	769.535
2029	1.65548	1.57452	3.20442	4.37270	0.00899	0.08273	0.00000	0.08273	0.07611	0.00000	0.07611	—	764.870	764.870	0.03103	0.00621	0.00000	767.495
2030	1.01341	0.94428	2.75914	3.85574	0.00873	0.08471	0.00000	0.08471	0.07793	0.00000	0.07793	—	785.565	785.565	0.03187	0.00637	0.00000	788.261

2.2.6. Offsite 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.64878	0.42314	4.30936	8.00129	0.02324	0.04503	2.23935	2.28438	0.04143	0.56196	0.60339	—	4,757.26	4,757.26	0.23206	0.58204	12.4782	4,948.99
2027	4.08362	3.57749	4.43768	60.5348	0.00675	0.00675	13.3276	13.3344	0.00675	3.13472	3.14147	—	14,207.5	14,207.5	0.60113	0.60072	43.8020	14,445.3
2028	3.95135	3.43846	4.34849	56.8596	0.00675	0.00675	13.3276	13.3344	0.00675	3.13472	3.14147	—	13,948.2	13,948.2	0.16449	0.60006	39.4773	14,170.6
2029	3.81907	3.30552	3.87282	53.1777	0.00675	0.00675	13.3276	13.3344	0.00675	3.13472	3.14147	—	13,702.3	13,702.3	0.16383	0.60006	35.4346	13,920.6
2030	3.45030	3.30276	4.74475	52.1509	0.01664	0.01664	14.1223	14.1390	0.01664	3.33677	3.35341	—	15,114.2	15,114.2	0.21425	0.78348	35.5497	15,388.6
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.64517	0.41805	4.51785	7.07166	0.02324	0.04503	2.23935	2.28438	0.04143	0.56196	0.60339	—	4,688.02	4,688.02	0.23427	0.58204	0.32384	4,867.65
2027	4.03821	3.51002	5.33704	51.3748	0.00675	0.00675	13.3276	13.3344	0.00675	3.13472	3.14147	—	13,517.7	13,517.7	0.21533	0.60072	1.13528	13,703.2
2028	3.92798	3.41509	4.86269	48.4198	0.00675	0.00675	13.3276	13.3344	0.00675	3.13472	3.14147	—	13,271.7	13,271.7	0.18653	0.60072	1.02108	13,456.4
2029	3.36514	3.26011	4.36564	45.0857	0.00675	0.00675	13.3276	13.3344	0.00675	3.13472	3.14147	—	13,038.7	13,038.7	0.18587	0.60072	0.91856	13,223.3
2030	3.27107	3.16696	4.05323	42.7401	0.00765	0.00765	13.5187	13.5263	0.00765	3.18094	3.18859	—	13,073.4	13,073.4	0.16962	0.61492	0.83825	13,261.8
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.19560	0.14680	0.89167	2.44024	0.00406	0.00790	0.64483	0.65273	0.00686	0.15751	0.16437	—	1,081.27	1,081.27	0.05186	0.10971	1.34535	1,116.60
2027	3.46245	3.00916	4.57993	46.2514	0.00578	0.00578	11.2803	11.2861	0.00578	2.65107	2.65685	—	11,746.5	11,746.5	0.18462	0.51492	16.1821	11,920.7

2028	3.35768	2.91686	4.16527	43.4877	0.00580	0.00580	11.3112	11.3170	0.00580	2.65833	2.66413	—	11,564.4	11,564.4	0.16038	0.51633	14.6729	11,737.0
2029	2.86607	2.77605	3.74674	40.5300	0.00578	0.00578	11.2803	11.2861	0.00578	2.65107	2.65685	—	11,330.0	11,330.0	0.15938	0.51435	13.1375	11,500.4
2030	1.40007	1.34939	1.90129	19.3270	0.00453	0.00453	5.75897	5.76350	0.00453	1.35597	1.36050	—	5,828.79	5,828.79	0.07853	0.28539	6.11432	5,921.91
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.03570	0.02679	0.16273	0.44534	0.00074	0.00144	0.11768	0.11912	0.00125	0.02874	0.03000	—	179.016	179.016	0.00859	0.01816	0.22274	184.866
2027	0.63190	0.54917	0.83584	8.44088	0.00106	0.00106	2.05866	2.05971	0.00106	0.48382	0.48488	—	1,944.76	1,944.76	0.03057	0.08525	2.67914	1,973.61
2028	0.61278	0.53233	0.76016	7.93651	0.00106	0.00106	2.06430	2.06536	0.00106	0.48515	0.48620	—	1,914.63	1,914.63	0.02655	0.08548	2.42926	1,943.19
2029	0.52306	0.50663	0.68378	7.39673	0.00106	0.00106	2.05866	2.05971	0.00106	0.48382	0.48488	—	1,875.81	1,875.81	0.02639	0.08516	2.17507	1,904.03
2030	0.25551	0.24626	0.34699	3.52718	0.00083	0.00083	1.05101	1.05184	0.00083	0.24747	0.24829	—	965.022	965.022	0.01300	0.04725	1.01230	980.440

2.3. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	61.1293	57.8190	16.9159	238.584	0.44098	0.45279	40.3991	40.8519	1.08016	10.2620	11.3422	762.617	45,078.5	45,841.1	79.5759	2.83059	101.659	48,775.7
Mit.	61.1293	57.8190	16.9159	238.584	0.44098	0.45279	40.3991	40.8519	1.08016	10.2620	11.3422	437.271	45,078.5	45,515.8	46.8223	2.60830	101.659	47,565.3
% Reduced	—	—	—	—	—	—	—	—	—	—	—	43%	—	1%	41%	8%	—	2%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	50.5059	47.9731	17.6892	169.045	0.42048	0.34870	40.3991	40.7478	1.00151	10.2620	11.2635	762.617	43,117.3	43,879.9	79.6606	2.91148	10.7817	46,749.8
Mit.	50.5059	47.9731	17.6892	169.045	0.42048	0.34870	40.3991	40.7478	1.00151	10.2620	11.2635	437.271	43,117.3	43,554.6	46.9070	2.68920	10.7817	45,539.4
% Reduced	—	—	—	—	—	—	—	—	—	—	—	43%	—	1%	41%	8%	—	3%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	52.1107	49.4779	28.9238	174.614	0.33094	-2.16010	30.0229	27.8628	1.07220	7.62784	8.70004	762.617	33,883.8	34,646.4	79.1334	2.47660	38.6806	37,401.5

Mit.	52.1107	49.4779	28.9238	174.614	0.33094	-2.16010	30.0229	27.8628	1.07220	7.62784	8.70004	437.271	33,883.8	34,321.1	46.3798	2.25432	38.6806	36,191.0
% Reduced	—	—	—	—	—	—	—	—	—	—	—	43%	—	1%	41%	9%	—	3%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.51020	9.02971	5.27860	31.8671	0.06040	-0.39422	5.47918	5.08496	0.19568	1.39208	1.58776	126.260	5,609.85	5,736.11	13.1014	0.41003	6.40402	6,192.24
Mit.	9.51020	9.02971	5.27860	31.8671	0.06040	-0.39422	5.47918	5.08496	0.19568	1.39208	1.58776	72.3952	5,609.85	5,682.25	7.67870	0.37323	6.40402	5,991.84
% Reduced	—	—	—	—	—	—	—	—	—	—	—	43%	—	1%	41%	9%	—	3%

2.4. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	24.1298	22.1521	13.8090	166.299	0.41187	0.23356	40.3991	40.6326	0.21745	10.2620	10.4795	—	42,111.1	42,111.1	2.05306	1.69574	93.2963	42,761.0
Area	31.1444	30.3387	0.49389	58.6975	0.00350	0.10426	—	0.10426	0.07881	—	0.07881	—	241.371	241.371	0.01013	0.00207	—	242.242
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Water	—	—	—	—	—	—	—	—	—	—	—	456.195	0.00000	456.195	46.7775	1.11142	—	1,956.84
Waste	—	—	—	—	—	—	—	—	—	—	—	306.422	0.00000	306.422	30.6258	0.00000	—	1,072.07
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.36261	8.36261
Stationary	5.85512	5.32816	2.61298	13.5875	0.02561	0.11497	0.00000	0.11497	0.78389	0.00000	0.78389	0.00000	2,726.07	2,726.07	0.10945	0.02136	0.00000	2,735.17
Total	61.1293	57.8190	16.9159	238.584	0.44098	0.45279	40.3991	40.8519	1.08016	10.2620	11.3422	762.617	45,078.5	45,841.1	79.5759	2.83059	101.659	48,775.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	23.9571	21.9513	15.0763	155.458	0.39487	0.23373	40.3991	40.6328	0.21761	10.2620	10.4796	—	40,391.2	40,391.2	2.14780	1.77871	2.41904	40,977.4
Area	20.6937	20.6937	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Water	—	—	—	—	—	—	—	—	—	—	—	456.195	0.00000	456.195	46.7775	1.11142	—	1,956.84
Waste	—	—	—	—	—	—	—	—	—	—	—	306.422	0.00000	306.422	30.6258	0.00000	—	1,072.07
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.36261	8.36261
Stationary	5.85512	5.32816	2.61298	13.5875	0.02561	0.11497	0.00000	0.11497	0.78389	0.00000	0.78389	0.00000	2,726.07	2,726.07	0.10945	0.02136	0.00000	2,735.17
Total	50.5059	47.9731	17.6892	169.045	0.42048	0.34870	40.3991	40.7478	1.00151	10.2620	11.2635	762.617	43,117.3	43,879.9	79.6606	2.91148	10.7817	46,749.8
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.8764	16.3698	11.4159	119.599	0.30062	0.17583	30.0229	30.1987	0.16370	7.62784	7.79155	—	30,746.8	30,746.8	1.60383	1.34048	30.3180	31,216.7
Area	27.8517	27.2999	0.33828	40.2038	0.00240	0.07141	—	0.07141	0.05398	—	0.05398	—	165.323	165.323	0.00694	0.00142	—	165.919
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Water	—	—	—	—	—	—	—	—	—	—	—	456.195	0.00000	456.195	46.7775	1.11142	—	1,956.84
Waste	—	—	—	—	—	—	—	—	—	—	—	306.422	0.00000	306.422	30.6258	0.00000	—	1,072.07
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.36261	8.36261
Stationary	6.38259	5.80815	17.1696	14.8115	0.02791	-2.40734	0.00000	-2.40734	0.85451	0.00000	0.85451	0.00000	2,971.65	2,971.65	0.11931	0.02328	0.00000	2,981.57
Total	52.1107	49.4779	28.9238	174.614	0.33094	-2.16010	30.0229	27.8628	1.07220	7.62784	8.70004	762.617	33,883.8	34,646.4	79.1334	2.47660	38.6806	37,401.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.26245	2.98750	2.08341	21.8268	0.05486	0.03209	5.47918	5.51127	0.02988	1.39208	1.42196	—	5,090.49	5,090.49	0.26553	0.22193	5.01949	5,168.28
Area	5.08293	4.98223	0.06174	7.33719	0.00044	0.01303	—	0.01303	0.00985	—	0.00985	—	27.3711	27.3711	0.00115	0.00023	—	27.4698
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Water	—	—	—	—	—	—	—	—	—	—	—	75.5282	0.00000	75.5282	7.74455	0.18401	—	323.977
Waste	—	—	—	—	—	—	—	—	—	—	—	50.7316	0.00000	50.7316	5.07045	0.00000	—	177.493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.38453	1.38453
Stationary	1.16482	1.05999	3.13345	2.70311	0.00509	-0.43934	0.00000	-0.43934	0.15595	0.00000	0.15595	0.00000	491.991	491.991	0.01975	0.00385	0.00000	493.633
Total	9.51020	9.02971	5.27860	31.8671	0.06040	-0.39422	5.47918	5.08496	0.19568	1.39208	1.58776	126.260	5,609.85	5,736.11	13.1014	0.41003	6.40402	6,192.24

2.5. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	24.1298	22.1521	13.8090	166.299	0.41187	0.23356	40.3991	40.6326	0.21745	10.2620	10.4795	—	42,111.1	42,111.1	2.05306	1.69574	93.2963	42,761.0
Area	31.1444	30.3387	0.49389	58.6975	0.00350	0.10426	—	0.10426	0.07881	—	0.07881	—	241.371	241.371	0.01013	0.00207	—	242.242
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Water	—	—	—	—	—	—	—	—	—	—	—	364.956	0.00000	364.956	37.4220	0.88914	—	1,565.47
Waste	—	—	—	—	—	—	—	—	—	—	—	72.3156	0.00000	72.3156	7.22768	0.00000	—	253.008
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.36261	8.36261
Stationary	5.85512	5.32816	2.61298	13.5875	0.02561	0.11497	0.00000	0.11497	0.78389	0.00000	0.78389	0.00000	2,726.07	2,726.07	0.10945	0.02136	0.00000	2,735.17
Total	61.1293	57.8190	16.9159	238.584	0.44098	0.45279	40.3991	40.8519	1.08016	10.2620	11.3422	437.271	45,078.5	45,515.8	46.8223	2.60830	101.659	47,565.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	23.9571	21.9513	15.0763	155.458	0.39487	0.23373	40.3991	40.6328	0.21761	10.2620	10.4796	—	40,391.2	40,391.2	2.14780	1.77871	2.41904	40,977.4
Area	20.6937	20.6937	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Water	—	—	—	—	—	—	—	—	—	—	—	364.956	0.00000	364.956	37.4220	0.88914	—	1,565.47
Waste	—	—	—	—	—	—	—	—	—	—	—	72.3156	0.00000	72.3156	7.22768	0.00000	—	253.008
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.36261	8.36261
Stationary	5.85512	5.32816	2.61298	13.5875	0.02561	0.11497	0.00000	0.11497	0.78389	0.00000	0.78389	0.00000	2,726.07	2,726.07	0.10945	0.02136	0.00000	2,735.17
Total	50.5059	47.9731	17.6892	169.045	0.42048	0.34870	40.3991	40.7478	1.00151	10.2620	11.2635	437.271	43,117.3	43,554.6	46.9070	2.68920	10.7817	45,539.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.8764	16.3698	11.4159	119.599	0.30062	0.17583	30.0229	30.1987	0.16370	7.62784	7.79155	—	30,746.8	30,746.8	1.60383	1.34048	30.3180	31,216.7
Area	27.8517	27.2999	0.33828	40.2038	0.00240	0.07141	—	0.07141	0.05398	—	0.05398	—	165.323	165.323	0.00694	0.00142	—	165.919
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Water	—	—	—	—	—	—	—	—	—	—	—	364.956	0.00000	364.956	37.4220	0.88914	—	1,565.47
Waste	—	—	—	—	—	—	—	—	—	—	—	72.3156	0.00000	72.3156	7.22768	0.00000	—	253.008
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.36261	8.36261
Stationary	6.38259	5.80815	17.1696	14.8115	0.02791	-2.40734	0.00000	-2.40734	0.85451	0.00000	0.85451	0.00000	2,971.65	2,971.65	0.11931	0.02328	0.00000	2,981.57
Total	52.1107	49.4779	28.9238	174.614	0.33094	-2.16010	30.0229	27.8628	1.07220	7.62784	8.70004	437.271	33,883.8	34,321.1	46.3798	2.25432	38.6806	36,191.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.26245	2.98750	2.08341	21.8268	0.05486	0.03209	5.47918	5.51127	0.02988	1.39208	1.42196	—	5,090.49	5,090.49	0.26553	0.22193	5.01949	5,168.28
Area	5.08293	4.98223	0.06174	7.33719	0.00044	0.01303	—	0.01303	0.00985	—	0.00985	—	27.3711	27.3711	0.00115	0.00023	—	27.4698
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Water	—	—	—	—	—	—	—	—	—	—	—	60.4226	0.00000	60.4226	6.19564	0.14721	—	259.181
Waste	—	—	—	—	—	—	—	—	—	—	—	11.9727	0.00000	11.9727	1.19663	0.00000	—	41.8883
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.38453	1.38453
Stationary	1.16482	1.05999	3.13345	2.70311	0.00509	-0.43934	0.00000	-0.43934	0.15595	0.00000	0.15595	0.00000	491.991	491.991	0.01975	0.00385	0.00000	493.633
Total	9.51020	9.02971	5.27860	31.8671	0.06040	-0.39422	5.47918	5.08496	0.19568	1.39208	1.58776	72.3952	5,609.85	5,682.25	7.67870	0.37323	6.40402	5,991.84

3. Construction Emissions Details

3.1. Demolition (2026)

3.1.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.79770	2.34142	17.4207	24.6317	0.04339	0.65857	—	0.65857	0.60588	—	0.60588	—	4,440.19	4,440.19	0.18011	0.03602	—	4,455.42

Demoliti	—	—	—	—	—	—	0.08035	0.08035	—	0.01217	0.01217	—	—	—	—	—	—	—
Onsite truck	0.00142	0.00064	0.01457	0.01082	0.00003	0.00001	0.29441	0.29442	0.00001	0.02939	0.02940	—	2.33657	2.33657	0.00071	0.00039	0.00153	2.47289
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.79770	2.34142	17.4207	24.6317	0.04339	0.65857	—	0.65857	0.60588	—	0.60588	—	4,440.19	4,440.19	0.18011	0.03602	—	4,455.42
Demolition	—	—	—	—	—	—	0.08035	0.08035	—	0.01217	0.01217	—	—	—	—	—	—	—
Onsite truck	0.00134	0.00058	0.01528	0.01115	0.00003	0.00001	0.29441	0.29442	0.00001	0.02939	0.02940	—	2.36527	2.36527	0.00071	0.00039	0.00004	2.50011
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.21106	1.01355	7.54101	10.6625	0.01878	0.28508	—	0.28508	0.26227	—	0.26227	—	1,922.05	1,922.05	0.07797	0.01559	—	1,928.65
Demolition	—	—	—	—	—	—	0.03478	0.03478	—	0.00527	0.00527	—	—	—	—	—	—	—
Onsite truck	0.00060	0.00027	0.00645	0.00474	0.00001	< 0.000005	0.12060	0.12060	< 0.000005	0.01204	0.01204	—	1.01667	1.01667	0.00031	0.00017	0.00028	1.07530
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22102	0.18497	1.37623	1.94590	0.00343	0.05203	—	0.05203	0.04786	—	0.04786	—	318.218	318.218	0.01291	0.00258	—	319.310
Demolition	—	—	—	—	—	—	0.00635	0.00635	—	0.00096	0.00096	—	—	—	—	—	—	—
Onsite truck	0.00011	0.00005	0.00118	0.00087	< 0.000005	< 0.000005	0.02201	0.02201	< 0.000005	0.00220	0.00220	—	0.16832	0.16832	0.00005	0.00003	0.00005	0.17803

3.1.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33246	0.29454	0.31041	5.16675	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,083.89	1,083.89	0.04497	0.03792	3.66737	1,099.99
Vendor	0.01802	0.00748	0.27500	0.13302	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	249.417	249.417	0.01037	0.03559	0.67400	260.957
Hauling	0.00597	0.00121	0.10216	0.03869	0.00060	0.00115	0.02410	0.02525	0.00115	0.00660	0.00775	—	87.9256	87.9256	0.00470	0.01404	0.19836	92.4263
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33246	0.29277	0.34833	4.40925	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,027.54	1,027.54	0.04674	0.03792	0.09518	1,040.11
Vendor	0.01767	0.00713	0.28752	0.13619	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	249.544	249.544	0.01037	0.03559	0.01749	260.427
Hauling	0.00589	0.00115	0.10628	0.03902	0.00060	0.00115	0.02410	0.02525	0.00115	0.00660	0.00775	—	87.9543	87.9543	0.00470	0.01404	0.00515	92.2618
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14315	0.12597	0.16414	1.99760	0.00000	0.00000	0.44695	0.44695	0.00000	0.10468	0.10468	—	451.363	451.363	0.02023	0.01641	0.68671	457.447
Vendor	0.00773	0.00316	0.12518	0.05834	0.00078	0.00156	0.02932	0.03087	0.00078	0.00811	0.00889	—	107.990	107.990	0.00449	0.01541	0.12584	112.819
Hauling	0.00257	0.00052	0.04658	0.01681	0.00026	0.00050	0.01033	0.01083	0.00050	0.00283	0.00333	—	38.0662	38.0662	0.00203	0.00608	0.03690	39.9655
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02612	0.02299	0.02996	0.36456	0.00000	0.00000	0.08157	0.08157	0.00000	0.01910	0.01910	—	74.7283	74.7283	0.00335	0.00272	0.11369	75.7355
Vendor	0.00141	0.00058	0.02284	0.01065	0.00014	0.00028	0.00535	0.00563	0.00014	0.00148	0.00162	—	17.8789	17.8789	0.00074	0.00255	0.02083	18.6785
Hauling	0.00047	0.00009	0.00850	0.00307	0.00005	0.00009	0.00189	0.00198	0.00009	0.00052	0.00061	—	6.30229	6.30229	0.00034	0.00101	0.00611	6.61674

3.1.3. Onsite - Mitigated

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

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

Off-Road	2.79770	2.34142	17.4207	24.6317	0.04339	0.65857	—	0.65857	0.60588	—	0.60588	—	4,440.19	4,440.19	0.18011	0.03602	—	4,455.42
Demolition	—	—	—	—	—	—	0.08035	0.08035	—	0.01217	0.01217	—	—	—	—	—	—	—
Onsite truck	0.00142	0.00064	0.01457	0.01082	0.00003	0.00001	0.29441	0.29442	0.00001	0.02939	0.02940	—	2.33657	2.33657	0.00071	0.00039	0.00153	2.47289
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.79770	2.34142	17.4207	24.6317	0.04339	0.65857	—	0.65857	0.60588	—	0.60588	—	4,440.19	4,440.19	0.18011	0.03602	—	4,455.42
Demolition	—	—	—	—	—	—	0.08035	0.08035	—	0.01217	0.01217	—	—	—	—	—	—	—
Onsite truck	0.00134	0.00058	0.01528	0.01115	0.00003	0.00001	0.29441	0.29442	0.00001	0.02939	0.02940	—	2.36527	2.36527	0.00071	0.00039	0.00004	2.50011
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.21106	1.01355	7.54101	10.6625	0.01878	0.28508	—	0.28508	0.26227	—	0.26227	—	1,922.05	1,922.05	0.07797	0.01559	—	1,928.65
Demolition	—	—	—	—	—	—	0.03478	0.03478	—	0.00527	0.00527	—	—	—	—	—	—	—
Onsite truck	0.00060	0.00027	0.00645	0.00474	0.00001	< 0.000005	0.12060	0.12060	< 0.000005	0.01204	0.01204	—	1.01667	1.01667	0.00031	0.00017	0.00028	1.07530
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22102	0.18497	1.37623	1.94590	0.00343	0.05203	—	0.05203	0.04786	—	0.04786	—	318.218	318.218	0.01291	0.00258	—	319.310
Demolition	—	—	—	—	—	—	0.00635	0.00635	—	0.00096	0.00096	—	—	—	—	—	—	—
Onsite truck	0.00011	0.00005	0.00118	0.00087	< 0.000005	< 0.000005	0.02201	0.02201	< 0.000005	0.00220	0.00220	—	0.16832	0.16832	0.00005	0.00003	0.00005	0.17803

3.1.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33246	0.29454	0.31041	5.16675	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,083.89	1,083.89	0.04497	0.03792	3.66737	1,099.99
Vendor	0.01802	0.00748	0.27500	0.13302	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	249.417	249.417	0.01037	0.03559	0.67400	260.957
Hauling	0.00597	0.00121	0.10216	0.03869	0.00060	0.00115	0.02410	0.02525	0.00115	0.00660	0.00775	—	87.9256	87.9256	0.00470	0.01404	0.19836	92.4263
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33246	0.29277	0.34833	4.40925	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,027.54	1,027.54	0.04674	0.03792	0.09518	1,040.11
Vendor	0.01767	0.00713	0.28752	0.13619	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	249.544	249.544	0.01037	0.03559	0.01749	260.427
Hauling	0.00589	0.00115	0.10628	0.03902	0.00060	0.00115	0.02410	0.02525	0.00115	0.00660	0.00775	—	87.9543	87.9543	0.00470	0.01404	0.00515	92.2618
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14315	0.12597	0.16414	1.99760	0.00000	0.00000	0.44695	0.44695	0.00000	0.10468	0.10468	—	451.363	451.363	0.02023	0.01641	0.68671	457.447
Vendor	0.00773	0.00316	0.12518	0.05834	0.00078	0.00156	0.02932	0.03087	0.00078	0.00811	0.00889	—	107.990	107.990	0.00449	0.01541	0.12584	112.819
Hauling	0.00257	0.00052	0.04658	0.01681	0.00026	0.00050	0.01033	0.01083	0.00050	0.00283	0.00333	—	38.0662	38.0662	0.00203	0.00608	0.03690	39.9655
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02612	0.02299	0.02996	0.36456	0.00000	0.00000	0.08157	0.08157	0.00000	0.01910	0.01910	—	74.7283	74.7283	0.00335	0.00272	0.11369	75.7355
Vendor	0.00141	0.00058	0.02284	0.01065	0.00014	0.00028	0.00535	0.00563	0.00014	0.00148	0.00162	—	17.8789	17.8789	0.00074	0.00255	0.02083	18.6785
Hauling	0.00047	0.00009	0.00850	0.00307	0.00005	0.00009	0.00189	0.00198	0.00009	0.00052	0.00061	—	6.30229	6.30229	0.00034	0.00101	0.00611	6.61674

3.2. Grading/Excavation (2026)

3.2.1. Onsite - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76751	0.64492	4.61476	6.78535	0.01768	0.15932	—	0.15932	0.14658	—	0.14658	—	1,914.21	1,914.21	0.07765	0.01553	—	1,920.78
Dust From Material Movement	—	—	—	—	—	—	0.00950	0.00950	—	0.00144	0.00144	—	—	—	—	—	—	—
Onsite truck	0.04557	0.02060	0.46618	0.34625	0.00085	0.00028	9.42104	9.42132	0.00028	0.94050	0.94078	—	74.7702	74.7702	0.02286	0.01256	0.04883	79.1326
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76751	0.64492	4.61476	6.78535	0.01768	0.15932	—	0.15932	0.14658	—	0.14658	—	1,914.21	1,914.21	0.07765	0.01553	—	1,920.78
Dust From Material Movement	—	—	—	—	—	—	0.00950	0.00950	—	0.00144	0.00144	—	—	—	—	—	—	—
Onsite truck	0.04275	0.01848	0.48890	0.35683	0.00085	0.00028	9.42104	9.42132	0.00028	0.94050	0.94078	—	75.6888	75.6888	0.02286	0.01256	0.00127	80.0036
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11145	0.09365	0.67009	0.98527	0.00257	0.02313	—	0.02313	0.02128	—	0.02128	—	277.954	277.954	0.01128	0.00226	—	278.908
Dust From Material Movement	—	—	—	—	—	—	0.00138	0.00138	—	0.00021	0.00021	—	—	—	—	—	—	—
Onsite truck	0.00641	0.00289	0.06921	0.05089	0.00012	0.00004	1.29454	1.29458	0.00004	0.12924	0.12928	—	10.9131	10.9131	0.00332	0.00182	0.00305	11.5425

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02034	0.01709	0.12229	0.17981	0.00047	0.00422	—	0.00422	0.00388	—	0.00388	—	46.0185	46.0185	0.00187	0.00037	—	46.1764
Dust From Material Movement	—	—	—	—	—	—	0.00025	0.00025	—	0.00004	0.00004	—	—	—	—	—	—	—
Onsite truck	0.00117	0.00053	0.01263	0.00929	0.00002	0.00001	0.23625	0.23626	0.00001	0.02359	0.02359	—	1.80678	1.80678	0.00055	0.00030	0.00050	1.91099

3.2.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08311	0.07363	0.07760	1.29169	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	270.974	270.974	0.01124	0.00948	0.91684	274.997
Vendor	0.01802	0.00748	0.27500	0.13302	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	249.417	249.417	0.01037	0.03559	0.67400	260.957
Hauling	0.19118	0.03880	3.26919	1.23812	0.01905	0.03668	0.77126	0.80795	0.03668	0.21116	0.24784	—	2,813.62	2,813.62	0.15027	0.44939	6.34759	2,957.64
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08311	0.07319	0.08708	1.10231	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	256.886	256.886	0.01168	0.00948	0.02380	260.027
Vendor	0.01767	0.00713	0.28752	0.13619	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	249.544	249.544	0.01037	0.03559	0.01749	260.427
Hauling	0.18836	0.03668	3.40112	1.24870	0.01905	0.03668	0.77126	0.80795	0.03668	0.21116	0.24784	—	2,814.54	2,814.54	0.15027	0.44939	0.16472	2,952.38
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01200	0.01056	0.01377	0.16752	0.00000	0.00000	0.03748	0.03748	0.00000	0.00878	0.00878	—	37.8516	37.8516	0.00170	0.00138	0.05759	38.3618
Vendor	0.00259	0.00106	0.04199	0.01957	0.00026	0.00052	0.00983	0.01036	0.00026	0.00272	0.00298	—	36.2244	36.2244	0.00151	0.00517	0.04221	37.8444
Hauling	0.02756	0.00553	0.50001	0.18040	0.00277	0.00533	0.11092	0.11624	0.00533	0.03039	0.03572	—	408.609	408.609	0.02182	0.06525	0.39610	428.996
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00219	0.00193	0.00251	0.03057	0.00000	0.00000	0.00684	0.00684	0.00000	0.00160	0.00160	—	6.26677	6.26677	0.00028	0.00023	0.00953	6.35124
Vendor	0.00047	0.00019	0.00766	0.00357	0.00005	0.00010	0.00179	0.00189	0.00005	0.00050	0.00054	—	5.99737	5.99737	0.00025	0.00086	0.00699	6.26557
Hauling	0.00503	0.00101	0.09125	0.03292	0.00050	0.00097	0.02024	0.02121	0.00097	0.00555	0.00652	—	67.6499	67.6499	0.00361	0.01080	0.06558	71.0253

3.2.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76751	0.64492	4.61476	6.78535	0.01768	0.15932	—	0.15932	0.14658	—	0.14658	—	1,914.21	1,914.21	0.07765	0.01553	—	1,920.78
Dust From Material Movement	—	—	—	—	—	—	0.00950	0.00950	—	0.00144	0.00144	—	—	—	—	—	—	—
Onsite truck	0.04557	0.02060	0.46618	0.34625	0.00085	0.00028	9.42104	9.42132	0.00028	0.94050	0.94078	—	74.7702	74.7702	0.02286	0.01256	0.04883	79.1326
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76751	0.64492	4.61476	6.78535	0.01768	0.15932	—	0.15932	0.14658	—	0.14658	—	1,914.21	1,914.21	0.07765	0.01553	—	1,920.78
Dust From Material Movement	—	—	—	—	—	—	0.00950	0.00950	—	0.00144	0.00144	—	—	—	—	—	—	—
Onsite truck	0.04275	0.01848	0.48890	0.35683	0.00085	0.00028	9.42104	9.42132	0.00028	0.94050	0.94078	—	75.6888	75.6888	0.02286	0.01256	0.00127	80.0036
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.11145	0.09365	0.67009	0.98527	0.00257	0.02313	—	0.02313	0.02128	—	0.02128	—	277.954	277.954	0.01128	0.00226	—	278.908
Dust From Material Movement	—	—	—	—	—	—	0.00138	0.00138	—	0.00021	0.00021	—	—	—	—	—	—	—
Onsite truck	0.00641	0.00289	0.06921	0.05089	0.00012	0.00004	1.29454	1.29458	0.00004	0.12924	0.12928	—	10.9131	10.9131	0.00332	0.00182	0.00305	11.5425
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02034	0.01709	0.12229	0.17981	0.00047	0.00422	—	0.00422	0.00388	—	0.00388	—	46.0185	46.0185	0.00187	0.00037	—	46.1764
Dust From Material Movement	—	—	—	—	—	—	0.00025	0.00025	—	0.00004	0.00004	—	—	—	—	—	—	—
Onsite truck	0.00117	0.00053	0.01263	0.00929	0.00002	0.00001	0.23625	0.23626	0.00001	0.02359	0.02359	—	1.80678	1.80678	0.00055	0.00030	0.00050	1.91099

3.2.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08311	0.07363	0.07760	1.29169	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	270.974	270.974	0.01124	0.00948	0.91684	274.997
Vendor	0.01802	0.00748	0.27500	0.13302	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	249.417	249.417	0.01037	0.03559	0.67400	260.957
Hauling	0.19118	0.03880	3.26919	1.23812	0.01905	0.03668	0.77126	0.80795	0.03668	0.21116	0.24784	—	2,813.62	2,813.62	0.15027	0.44939	6.34759	2,957.64
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08311	0.07319	0.08708	1.10231	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	256.886	256.886	0.01168	0.00948	0.02380	260.027
Vendor	0.01767	0.00713	0.28752	0.13619	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	249.544	249.544	0.01037	0.03559	0.01749	260.427

Hauling	0.18836	0.03668	3.40112	1.24870	0.01905	0.03668	0.77126	0.80795	0.03668	0.21116	0.24784	—	2,814.54	2,814.54	0.15027	0.44939	0.16472	2,952.38
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01200	0.01056	0.01377	0.16752	0.00000	0.00000	0.03748	0.03748	0.00000	0.00878	0.00878	—	37.8516	37.8516	0.00170	0.00138	0.05759	38.3618
Vendor	0.00259	0.00106	0.04199	0.01957	0.00026	0.00052	0.00983	0.01036	0.00026	0.00272	0.00298	—	36.2244	36.2244	0.00151	0.00517	0.04221	37.8444
Hauling	0.02756	0.00553	0.50001	0.18040	0.00277	0.00533	0.11092	0.11624	0.00533	0.03039	0.03572	—	408.609	408.609	0.02182	0.06525	0.39610	428.996
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00219	0.00193	0.00251	0.03057	0.00000	0.00000	0.00684	0.00684	0.00000	0.00160	0.00160	—	6.26677	6.26677	0.00028	0.00023	0.00953	6.35124
Vendor	0.00047	0.00019	0.00766	0.00357	0.00005	0.00010	0.00179	0.00189	0.00005	0.00050	0.00054	—	5.99737	5.99737	0.00025	0.00086	0.00699	6.26557
Hauling	0.00503	0.00101	0.09125	0.03292	0.00050	0.00097	0.02024	0.02121	0.00097	0.00555	0.00652	—	67.6499	67.6499	0.00361	0.01080	0.06558	71.0253

3.3. Building Construction (2027)

3.3.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.19049	2.65585	21.2241	27.0895	0.05572	0.64480	—	0.64480	0.59322	—	0.59322	—	5,254.63	5,254.63	0.21315	0.04263	—	5,272.67
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.19049	2.65585	21.2241	27.0895	0.05572	0.64480	—	0.64480	0.59322	—	0.59322	—	5,254.63	5,254.63	0.21315	0.04263	—	5,272.67

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.73471	2.27645	18.1921	23.2196	0.04776	0.55269	—	0.55269	0.50847	—	0.50847	—	4,503.97	4,503.97	0.18270	0.03654	—	4,519.43
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49908	0.41545	3.32006	4.23757	0.00872	0.10087	—	0.10087	0.09280	—	0.09280	—	745.684	745.684	0.03025	0.00605	—	748.243
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.02344	3.54944	3.45023	60.0649	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	13,289.3	13,289.3	0.56218	0.47399	41.4095	13,486.0
Vendor	0.06019	0.02804	0.98745	0.46985	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	917.212	917.212	0.03889	0.12672	2.39245	958.340
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.97934	3.48330	4.31004	50.8937	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	12,599.0	12,599.0	0.17637	0.47399	1.07315	12,745.8
Vendor	0.05886	0.02672	1.02700	0.48109	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	917.717	917.717	0.03889	0.12672	0.06213	956.514
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.41087	2.98569	3.69432	45.8436	0.00000	0.00000	11.0626	11.0626	0.00000	2.59087	2.59087	—	10,958.5	10,958.5	0.15117	0.40628	15.2974	11,098.6
Vendor	0.05159	0.02347	0.88562	0.40783	0.00578	0.00578	0.21768	0.22346	0.00578	0.06020	0.06598	—	786.362	786.362	0.03333	0.10862	0.88477	820.448
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.62248	0.54489	0.67421	8.36645	0.00000	0.00000	2.01893	2.01893	0.00000	0.47283	0.47283	—	1,814.30	1,814.30	0.02503	0.06726	2.53265	1,837.51
Vendor	0.00941	0.00428	0.16162	0.07443	0.00106	0.00106	0.03973	0.04078	0.00106	0.01099	0.01204	—	130.191	130.191	0.00552	0.01798	0.14648	135.835
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.19049	2.65585	21.2241	27.0895	0.05572	0.64480	—	0.64480	0.59322	—	0.59322	—	5,254.63	5,254.63	0.21315	0.04263	—	5,272.67
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.19049	2.65585	21.2241	27.0895	0.05572	0.64480	—	0.64480	0.59322	—	0.59322	—	5,254.63	5,254.63	0.21315	0.04263	—	5,272.67
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.73471	2.27645	18.1921	23.2196	0.04776	0.55269	—	0.55269	0.50847	—	0.50847	—	4,503.97	4,503.97	0.18270	0.03654	—	4,519.43
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49908	0.41545	3.32006	4.23757	0.00872	0.10087	—	0.10087	0.09280	—	0.09280	—	745.684	745.684	0.03025	0.00605	—	748.243
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.02344	3.54944	3.45023	60.0649	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	13,289.3	13,289.3	0.56218	0.47399	41.4095	13,486.0
Vendor	0.06019	0.02804	0.98745	0.46985	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	917.212	917.212	0.03889	0.12672	2.39245	958.340
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.97934	3.48330	4.31004	50.8937	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	12,599.0	12,599.0	0.17637	0.47399	1.07315	12,745.8
Vendor	0.05886	0.02672	1.02700	0.48109	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	917.717	917.717	0.03889	0.12672	0.06213	956.514
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.41087	2.98569	3.69432	45.8436	0.00000	0.00000	11.0626	11.0626	0.00000	2.59087	2.59087	—	10,958.5	10,958.5	0.15117	0.40628	15.2974	11,098.6
Vendor	0.05159	0.02347	0.88562	0.40783	0.00578	0.00578	0.21768	0.22346	0.00578	0.06020	0.06598	—	786.362	786.362	0.03333	0.10862	0.88477	820.448
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.62248	0.54489	0.67421	8.36645	0.00000	0.00000	2.01893	2.01893	0.00000	0.47283	0.47283	—	1,814.30	1,814.30	0.02503	0.06726	2.53265	1,837.51
Vendor	0.00941	0.00428	0.16162	0.07443	0.00106	0.00106	0.03973	0.04078	0.00106	0.01099	0.01204	—	130.191	130.191	0.00552	0.01798	0.14648	135.835
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4. Building Construction (2028)

3.4.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.06485	2.55150	20.3430	26.9869	0.05573	0.56888	—	0.56888	0.52337	—	0.52337	—	5,255.88	5,255.88	0.21320	0.04264	—	5,273.91
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.06485	2.55150	20.3430	26.9869	0.05573	0.56888	—	0.56888	0.52337	—	0.52337	—	5,255.88	5,255.88	0.21320	0.04264	—	5,273.91
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.63421	2.19299	17.4846	23.1950	0.04790	0.48895	—	0.48895	0.44983	—	0.44983	—	4,517.38	4,517.38	0.18324	0.03665	—	4,532.88

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48074	0.40022	3.19094	4.23309	0.00874	0.08923	—	0.08923	0.08209	—	0.08209	—	747.904	747.904	0.03034	0.00607	—	750.470
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.89116	3.41717	3.40614	56.4053	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	13,051.4	13,051.4	0.13228	0.47399	37.2103	13,233.2
Vendor	0.06019	0.02130	0.94234	0.45437	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	895.816	895.816	0.03214	0.12606	2.26704	936.453
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.86911	3.39512	3.88014	47.9616	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	12,374.4	12,374.4	0.15432	0.47399	0.96233	12,520.5
Vendor	0.05886	0.01997	0.98256	0.45821	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	896.350	896.350	0.03214	0.12672	0.05875	934.975
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.30652	2.89913	3.31599	43.0984	0.00000	0.00000	11.0930	11.0930	0.00000	2.59796	2.59796	—	10,792.7	10,792.7	0.13264	0.40739	13.8354	10,931.3
Vendor	0.05116	0.01774	0.84927	0.38928	0.00580	0.00580	0.21827	0.22407	0.00580	0.06037	0.06616	—	770.141	770.141	0.02763	0.10892	0.83744	804.126
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60344	0.52909	0.60517	7.86547	0.00000	0.00000	2.02446	2.02446	0.00000	0.47413	0.47413	—	1,786.85	1,786.85	0.02196	0.06745	2.29061	1,809.79

Vendor	0.00934	0.00324	0.15499	0.07104	0.00106	0.00106	0.03983	0.04089	0.00106	0.01102	0.01208	—	127.506	127.506	0.00457	0.01803	0.13865	133.132
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.06485	2.55150	20.3430	26.9869	0.05573	0.56888	—	0.56888	0.52337	—	0.52337	—	5,255.88	5,255.88	0.21320	0.04264	—	5,273.91
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.06485	2.55150	20.3430	26.9869	0.05573	0.56888	—	0.56888	0.52337	—	0.52337	—	5,255.88	5,255.88	0.21320	0.04264	—	5,273.91
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.63421	2.19299	17.4846	23.1950	0.04790	0.48895	—	0.48895	0.44983	—	0.44983	—	4,517.38	4,517.38	0.18324	0.03665	—	4,532.88
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.48074	0.40022	3.19094	4.23309	0.00874	0.08923	—	0.08923	0.08209	—	0.08209	—	747.904	747.904	0.03034	0.00607	—	750.470
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.89116	3.41717	3.40614	56.4053	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	13,051.4	13,051.4	0.13228	0.47399	37.2103	13,233.2
Vendor	0.06019	0.02130	0.94234	0.45437	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	895.816	895.816	0.03214	0.12606	2.26704	936.453
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.86911	3.39512	3.88014	47.9616	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	12,374.4	12,374.4	0.15432	0.47399	0.96233	12,520.5
Vendor	0.05886	0.01997	0.98256	0.45821	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	896.350	896.350	0.03214	0.12672	0.05875	934.975
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.30652	2.89913	3.31599	43.0984	0.00000	0.00000	11.0930	11.0930	0.00000	2.59796	2.59796	—	10,792.7	10,792.7	0.13264	0.40739	13.8354	10,931.3
Vendor	0.05116	0.01774	0.84927	0.38928	0.00580	0.00580	0.21827	0.22407	0.00580	0.06037	0.06616	—	770.141	770.141	0.02763	0.10892	0.83744	804.126
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60344	0.52909	0.60517	7.86547	0.00000	0.00000	2.02446	2.02446	0.00000	0.47413	0.47413	—	1,786.85	1,786.85	0.02196	0.06745	2.29061	1,809.79
Vendor	0.00934	0.00324	0.15499	0.07104	0.00106	0.00106	0.03983	0.04089	0.00106	0.01102	0.01208	—	127.506	127.506	0.00457	0.01803	0.13865	133.132
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Building Construction (2029)

3.5.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.96302	2.46694	19.6907	26.8412	0.05573	0.51601	—	0.51601	0.47473	—	0.47473	—	5,256.32	5,256.32	0.21322	0.04264	—	5,274.36
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.96302	2.46694	19.6907	26.8412	0.05573	0.51601	—	0.51601	0.47473	—	0.47473	—	5,256.32	5,256.32	0.21322	0.04264	—	5,274.36
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.53973	2.11452	16.8777	23.0067	0.04777	0.44230	—	0.44230	0.40691	—	0.40691	—	4,505.42	4,505.42	0.18276	0.03655	—	4,520.88
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46350	0.38590	3.08019	4.19872	0.00872	0.08072	—	0.08072	0.07426	—	0.07426	—	745.924	745.924	0.03026	0.00605	—	748.483

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
--------------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---	---------	---------	---------	---------	---------	---------

3.5.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.75888	3.28489	2.97624	52.7456	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	12,829.2	12,829.2	0.13228	0.47399	33.3026	13,007.1
Vendor	0.06019	0.02064	0.89658	0.43215	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	872.114	872.114	0.03148	0.12606	2.13198	912.599
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.30693	3.24080	3.42819	44.6436	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	12,165.1	12,165.1	0.15432	0.47399	0.86318	12,311.1
Vendor	0.05820	0.01931	0.93745	0.44207	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	872.668	872.668	0.03148	0.12672	0.05537	911.274
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.81562	2.75893	2.93845	40.1556	0.00000	0.00000	11.0626	11.0626	0.00000	2.59087	2.59087	—	10,580.7	10,580.7	0.13228	0.40628	12.3479	10,717.4
Vendor	0.05045	0.01712	0.80829	0.37438	0.00578	0.00578	0.21768	0.22346	0.00578	0.06020	0.06598	—	747.727	747.727	0.02698	0.10805	0.78967	781.391
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.51385	0.50350	0.53627	7.32840	0.00000	0.00000	2.01893	2.01893	0.00000	0.47283	0.47283	—	1,751.75	1,751.75	0.02190	0.06726	2.04433	1,774.39
Vendor	0.00921	0.00312	0.14751	0.06832	0.00106	0.00106	0.03973	0.04078	0.00106	0.01099	0.01204	—	123.795	123.795	0.00447	0.01789	0.13074	129.368
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.96302	2.46694	19.6907	26.8412	0.05573	0.51601	—	0.51601	0.47473	—	0.47473	—	5,256.32	5,256.32	0.21322	0.04264	—	5,274.36
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.96302	2.46694	19.6907	26.8412	0.05573	0.51601	—	0.51601	0.47473	—	0.47473	—	5,256.32	5,256.32	0.21322	0.04264	—	5,274.36
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.53973	2.11452	16.8777	23.0067	0.04777	0.44230	—	0.44230	0.40691	—	0.40691	—	4,505.42	4,505.42	0.18276	0.03655	—	4,520.88
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46350	0.38590	3.08019	4.19872	0.00872	0.08072	—	0.08072	0.07426	—	0.07426	—	745.924	745.924	0.03026	0.00605	—	748.483
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.75888	3.28489	2.97624	52.7456	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	12,829.2	12,829.2	0.13228	0.47399	33.3026	13,007.1
Vendor	0.06019	0.02064	0.89658	0.43215	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	872.114	872.114	0.03148	0.12606	2.13198	912.599
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.30693	3.24080	3.42819	44.6436	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	12,165.1	12,165.1	0.15432	0.47399	0.86318	12,311.1
Vendor	0.05820	0.01931	0.93745	0.44207	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	872.668	872.668	0.03148	0.12672	0.05537	911.274
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.81562	2.75893	2.93845	40.1556	0.00000	0.00000	11.0626	11.0626	0.00000	2.59087	2.59087	—	10,580.7	10,580.7	0.13228	0.40628	12.3479	10,717.4
Vendor	0.05045	0.01712	0.80829	0.37438	0.00578	0.00578	0.21768	0.22346	0.00578	0.06020	0.06598	—	747.727	747.727	0.02698	0.10805	0.78967	781.391
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.51385	0.50350	0.53627	7.32840	0.00000	0.00000	2.01893	2.01893	0.00000	0.47283	0.47283	—	1,751.75	1,751.75	0.02190	0.06726	2.04433	1,774.39
Vendor	0.00921	0.00312	0.14751	0.06832	0.00106	0.00106	0.03973	0.04078	0.00106	0.01099	0.01204	—	123.795	123.795	0.00447	0.01789	0.13074	129.368
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6. Building Construction (2030)

3.6.1. Onsite - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.87487	2.39367	19.2939	26.7648	0.05574	0.47882	—	0.47882	0.44051	—	0.44051	—	5,256.34	5,256.34	0.21322	0.04264	—	5,274.37
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.87487	2.39367	19.2939	26.7648	0.05574	0.47882	—	0.47882	0.44051	—	0.44051	—	5,256.34	5,256.34	0.21322	0.04264	—	5,274.37
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22196	1.01743	8.20085	11.3764	0.02369	0.20352	—	0.20352	0.18724	—	0.18724	—	2,234.20	2,234.20	0.09063	0.01813	—	2,241.87
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22301	0.18568	1.49666	2.07618	0.00432	0.03714	—	0.03714	0.03417	—	0.03417	—	369.897	369.897	0.01500	0.00300	—	371.167
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.21875	3.15261	2.54634	49.5379	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	12,621.1	12,621.1	0.13228	0.47399	29.6282	12,795.3
Vendor	0.05212	0.01997	0.85822	0.41667	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	846.529	846.529	0.03148	0.11931	2.01622	884.888
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.17466	3.10852	2.99829	41.7556	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	11,968.6	11,968.6	0.13228	0.47399	0.76987	12,114.0
Vendor	0.05146	0.01865	0.89909	0.42659	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	847.101	847.101	0.03148	0.11931	0.05219	883.496
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.34001	1.31190	1.27442	18.6946	0.00000	0.00000	5.48586	5.48586	0.00000	1.28479	1.28479	—	5,161.98	5,161.98	0.05622	0.20147	5.42907	5,228.85
Vendor	0.02215	0.00821	0.38165	0.17907	0.00287	0.00287	0.10794	0.11081	0.00287	0.02985	0.03272	—	359.919	359.919	0.01338	0.05071	0.36945	375.736
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24455	0.23942	0.23258	3.41176	0.00000	0.00000	1.00117	1.00117	0.00000	0.23447	0.23447	—	854.625	854.625	0.00931	0.03336	0.89884	865.696
Vendor	0.00404	0.00150	0.06965	0.03268	0.00052	0.00052	0.01970	0.02022	0.00052	0.00545	0.00597	—	59.5887	59.5887	0.00222	0.00840	0.06117	62.2073
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.3. Onsite - Mitigated

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

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

Off-Road Equipm	2.87487	2.39367	19.2939	26.7648	0.05574	0.47882	—	0.47882	0.44051	—	0.44051	—	5,256.34	5,256.34	0.21322	0.04264	—	5,274.37
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	2.87487	2.39367	19.2939	26.7648	0.05574	0.47882	—	0.47882	0.44051	—	0.44051	—	5,256.34	5,256.34	0.21322	0.04264	—	5,274.37
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	1.22196	1.01743	8.20085	11.3764	0.02369	0.20352	—	0.20352	0.18724	—	0.18724	—	2,234.20	2,234.20	0.09063	0.01813	—	2,241.87
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.22301	0.18568	1.49666	2.07618	0.00432	0.03714	—	0.03714	0.03417	—	0.03417	—	369.897	369.897	0.01500	0.00300	—	371.167
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.4. Offsite - Mitigated

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

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

Worker	3.21875	3.15261	2.54634	49.5379	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	12,621.1	12,621.1	0.13228	0.47399	29.6282	12,795.3
Vendor	0.05212	0.01997	0.85822	0.41667	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	846.529	846.529	0.03148	0.11931	2.01622	884.888
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.17466	3.10852	2.99829	41.7556	0.00000	0.00000	13.0709	13.0709	0.00000	3.06381	3.06381	—	11,968.6	11,968.6	0.13228	0.47399	0.76987	12,114.0
Vendor	0.05146	0.01865	0.89909	0.42659	0.00675	0.00675	0.25668	0.26342	0.00675	0.07092	0.07766	—	847.101	847.101	0.03148	0.11931	0.05219	883.496
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.34001	1.31190	1.27442	18.6946	0.00000	0.00000	5.48586	5.48586	0.00000	1.28479	1.28479	—	5,161.98	5,161.98	0.05622	0.20147	5.42907	5,228.85
Vendor	0.02215	0.00821	0.38165	0.17907	0.00287	0.00287	0.10794	0.11081	0.00287	0.02985	0.03272	—	359.919	359.919	0.01338	0.05071	0.36945	375.736
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24455	0.23942	0.23258	3.41176	0.00000	0.00000	1.00117	1.00117	0.00000	0.23447	0.23447	—	854.625	854.625	0.00931	0.03336	0.89884	865.696
Vendor	0.00404	0.00150	0.06965	0.03268	0.00052	0.00052	0.01970	0.02022	0.00052	0.00545	0.00597	—	59.5887	59.5887	0.00222	0.00840	0.06117	62.2073
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Offsite Improvements (2030)

3.7.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	1.82844	1.53401	11.0428	15.5186	0.04355	0.44994	—	0.44994	0.41394	—	0.41394	—	4,620.99	4,620.99	0.18745	0.03749	—	4,636.85

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	1.82844	1.53401	11.0428	15.5186	0.04355	0.44994	—	0.44994	0.41394	—	0.41394	—	4,620.99	4,620.99	0.18745	0.03749	—	4,636.85
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.77646	0.65143	4.68942	6.59008	0.01850	0.19107	—	0.19107	0.17578	—	0.17578	—	1,962.34	1,962.34	0.07960	0.01592	—	1,969.07
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.14170	0.11889	0.85582	1.20269	0.00338	0.03487	—	0.03487	0.03208	—	0.03208	—	324.888	324.888	0.01318	0.00264	—	326.003
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03862	0.03783	0.03056	0.59445	0.00000	0.00000	0.15685	0.15685	0.00000	0.03677	0.03677	—	151.453	151.453	0.00159	0.00569	0.35554	153.543
Vendor	0.00695	0.00266	0.11443	0.05556	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	112.871	112.871	0.00420	0.01591	0.26883	117.985

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03810	0.03730	0.03598	0.50107	0.00000	0.00000	0.15685	0.15685	0.00000	0.03677	0.03677	—	143.624	143.624	0.00159	0.00569	0.00924	145.368
Vendor	0.00686	0.00249	0.11988	0.05688	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	112.947	112.947	0.00420	0.01591	0.00696	117.799
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01607	0.01573	0.01528	0.22413	0.00000	0.00000	0.06577	0.06577	0.00000	0.01540	0.01540	—	61.8867	61.8867	0.00067	0.00242	0.06509	62.6885
Vendor	0.00295	0.00109	0.05084	0.02385	0.00038	0.00038	0.01438	0.01476	0.00038	0.00398	0.00436	—	47.9450	47.9450	0.00178	0.00676	0.04921	50.0520
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00293	0.00287	0.00279	0.04090	0.00000	0.00000	0.01200	0.01200	0.00000	0.00281	0.00281	—	10.2461	10.2461	0.00011	0.00040	0.01078	10.3788
Vendor	0.00054	0.00020	0.00928	0.00435	0.00007	0.00007	0.00262	0.00269	0.00007	0.00073	0.00080	—	7.93784	7.93784	0.00030	0.00112	0.00815	8.28668
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	1.82844	1.53401	11.0428	15.5186	0.04355	0.44994	—	0.44994	0.41394	—	0.41394	—	4,620.99	4,620.99	0.18745	0.03749	—	4,636.85
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.82844	1.53401	11.0428	15.5186	0.04355	0.44994	—	0.44994	0.41394	—	0.41394	—	4,620.99	4,620.99	0.18745	0.03749	—	4,636.85
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77646	0.65143	4.68942	6.59008	0.01850	0.19107	—	0.19107	0.17578	—	0.17578	—	1,962.34	1,962.34	0.07960	0.01592	—	1,969.07
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14170	0.11889	0.85582	1.20269	0.00338	0.03487	—	0.03487	0.03208	—	0.03208	—	324.888	324.888	0.01318	0.00264	—	326.003
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03862	0.03783	0.03056	0.59445	0.00000	0.00000	0.15685	0.15685	0.00000	0.03677	0.03677	—	151.453	151.453	0.00159	0.00569	0.35554	153.543
Vendor	0.00695	0.00266	0.11443	0.05556	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	112.871	112.871	0.00420	0.01591	0.26883	117.985
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03810	0.03730	0.03598	0.50107	0.00000	0.00000	0.15685	0.15685	0.00000	0.03677	0.03677	—	143.624	143.624	0.00159	0.00569	0.00924	145.368
Vendor	0.00686	0.00249	0.11988	0.05688	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	112.947	112.947	0.00420	0.01591	0.00696	117.799

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01607	0.01573	0.01528	0.22413	0.00000	0.00000	0.06577	0.06577	0.00000	0.01540	0.01540	—	61.8867	61.8867	0.00067	0.00242	0.06509	62.6885
Vendor	0.00295	0.00109	0.05084	0.02385	0.00038	0.00038	0.01438	0.01476	0.00038	0.00398	0.00436	—	47.9450	47.9450	0.00178	0.00676	0.04921	50.0520
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00293	0.00287	0.00279	0.04090	0.00000	0.00000	0.01200	0.01200	0.00000	0.00281	0.00281	—	10.2461	10.2461	0.00011	0.00040	0.01078	10.3788
Vendor	0.00054	0.00020	0.00928	0.00435	0.00007	0.00007	0.00262	0.00269	0.00007	0.00073	0.00080	—	7.93784	7.93784	0.00030	0.00112	0.00815	8.28668
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8. Paving (2030)

3.8.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.72511	1.44147	13.2997	18.8837	0.03452	0.45548	—	0.45548	0.41904	—	0.41904	—	3,450.43	3,450.43	0.13996	0.02799	—	3,462.27
Paving	0.50470	0.50470	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.24577	0.20536	1.89475	2.69028	0.00492	0.06489	—	0.06489	0.05970	—	0.05970	—	491.568	491.568	0.01994	0.00399	—	493.255
Paving	0.07190	0.07190	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04485	0.03748	0.34579	0.49098	0.00090	0.01184	—	0.01184	0.01089	—	0.01089	—	81.3847	81.3847	0.00330	0.00066	—	81.6640
Paving	0.01312	0.01312	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06437	0.06305	0.05093	0.99076	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	252.422	252.422	0.00265	0.00948	0.59256	255.905
Vendor	0.06949	0.02663	1.14429	0.55556	0.00899	0.00899	0.34224	0.35123	0.00899	0.09455	0.10355	—	1,128.71	1,128.71	0.04198	0.15909	2.68829	1,179.85
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00898	0.00879	0.00854	0.12532	0.00000	0.00000	0.03677	0.03677	0.00000	0.00861	0.00861	—	34.6033	34.6033	0.00038	0.00135	0.03639	35.0516
Vendor	0.00990	0.00367	0.17056	0.08003	0.00128	0.00128	0.04824	0.04952	0.00128	0.01334	0.01462	—	160.848	160.848	0.00598	0.02266	0.16511	167.916
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00164	0.00160	0.00156	0.02287	0.00000	0.00000	0.00671	0.00671	0.00000	0.00157	0.00157	—	5.72898	5.72898	0.00006	0.00022	0.00603	5.80320
Vendor	0.00181	0.00067	0.03113	0.01461	0.00023	0.00023	0.00880	0.00904	0.00023	0.00243	0.00267	—	26.6302	26.6302	0.00099	0.00375	0.02734	27.8005
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.72511	1.44147	13.2997	18.8837	0.03452	0.45548	—	0.45548	0.41904	—	0.41904	—	3,450.43	3,450.43	0.13996	0.02799	—	3,462.27
Paving	0.50470	0.50470	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24577	0.20536	1.89475	2.69028	0.00492	0.06489	—	0.06489	0.05970	—	0.05970	—	491.568	491.568	0.01994	0.00399	—	493.255
Paving	0.07190	0.07190	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04485	0.03748	0.34579	0.49098	0.00090	0.01184	—	0.01184	0.01089	—	0.01089	—	81.3847	81.3847	0.00330	0.00066	—	81.6640

Paving	0.01312	0.01312	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06437	0.06305	0.05093	0.99076	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	252.422	252.422	0.00265	0.00948	0.59256	255.905
Vendor	0.06949	0.02663	1.14429	0.55556	0.00899	0.00899	0.34224	0.35123	0.00899	0.09455	0.10355	—	1,128.71	1,128.71	0.04198	0.15909	2.68829	1,179.85
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00898	0.00879	0.00854	0.12532	0.00000	0.00000	0.03677	0.03677	0.00000	0.00861	0.00861	—	34.6033	34.6033	0.00038	0.00135	0.03639	35.0516
Vendor	0.00990	0.00367	0.17056	0.08003	0.00128	0.00128	0.04824	0.04952	0.00128	0.01334	0.01462	—	160.848	160.848	0.00598	0.02266	0.16511	167.916
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00164	0.00160	0.00156	0.02287	0.00000	0.00000	0.00671	0.00671	0.00000	0.00157	0.00157	—	5.72898	5.72898	0.00006	0.00022	0.00603	5.80320
Vendor	0.00181	0.00067	0.03113	0.01461	0.00023	0.00023	0.00880	0.00904	0.00023	0.00243	0.00267	—	26.6302	26.6302	0.00099	0.00375	0.02734	27.8005
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9. Architectural Coating (2027)

3.9.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13715	0.11335	0.83116	1.12539	0.00173	0.01905	—	0.01905	0.01752	—	0.01752	—	133.513	133.513	0.00542	0.00108	—	133.971
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13715	0.11335	0.83116	1.12539	0.00173	0.01905	—	0.01905	0.01752	—	0.01752	—	133.513	133.513	0.00542	0.00108	—	133.971
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11756	0.09716	0.71242	0.96462	0.00148	0.01633	—	0.01633	0.01502	—	0.01502	—	114.439	114.439	0.00464	0.00093	—	114.832
Architectural Coatings	6.42523	6.42523	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02145	0.01773	0.13002	0.17604	0.00027	0.00298	—	0.00298	0.00274	—	0.00274	—	18.9468	18.9468	0.00077	0.00015	—	19.0118
Architectural Coatings	1.17260	1.17260	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13715	0.11335	0.83116	1.12539	0.00173	0.01905	—	0.01905	0.01752	—	0.01752	—	133.513	133.513	0.00542	0.00108	—	133.971
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13715	0.11335	0.83116	1.12539	0.00173	0.01905	—	0.01905	0.01752	—	0.01752	—	133.513	133.513	0.00542	0.00108	—	133.971
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11756	0.09716	0.71242	0.96462	0.00148	0.01633	—	0.01633	0.01502	—	0.01502	—	114.439	114.439	0.00464	0.00093	—	114.832
Architectural Coatings	6.42523	6.42523	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02145	0.01773	0.13002	0.17604	0.00027	0.00298	—	0.00298	0.00274	—	0.00274	—	18.9468	18.9468	0.00077	0.00015	—	19.0118
Architectural Coatings	1.17260	1.17260	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.10. Architectural Coating (2028)

3.10.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12985	0.10731	0.80814	1.11833	0.00173	0.01536	—	0.01536	0.01413	—	0.01413	—	133.517	133.517	0.00542	0.00108	—	133.975
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.12985	0.10731	0.80814	1.11833	0.00173	0.01536	—	0.01536	0.01413	—	0.01413	—	133.517	133.517	0.00542	0.00108	—	133.975
Architect ural Coating s	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.11160	0.09223	0.69459	0.96120	0.00148	0.01320	—	0.01320	0.01214	—	0.01214	—	114.757	114.757	0.00466	0.00093	—	115.151
Architect ural Coating s	6.44283	6.44283	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.02037	0.01683	0.12676	0.17542	0.00027	0.00241	—	0.00241	0.00222	—	0.00222	—	18.9993	18.9993	0.00077	0.00015	—	19.0645
Architect ural Coating s	1.17582	1.17582	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000

3.10.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.10.3. Onsite - Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12985	0.10731	0.80814	1.11833	0.00173	0.01536	—	0.01536	0.01413	—	0.01413	—	133.517	133.517	0.00542	0.00108	—	133.975
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12985	0.10731	0.80814	1.11833	0.00173	0.01536	—	0.01536	0.01413	—	0.01413	—	133.517	133.517	0.00542	0.00108	—	133.975
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11160	0.09223	0.69459	0.96120	0.00148	0.01320	—	0.01320	0.01214	—	0.01214	—	114.757	114.757	0.00466	0.00093	—	115.151
Architectural Coatings	6.44283	6.44283	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02037	0.01683	0.12676	0.17542	0.00027	0.00241	—	0.00241	0.00222	—	0.00222	—	18.9993	18.9993	0.00077	0.00015	—	19.0645
Architectural Coatings	1.17582	1.17582	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.10.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.11. Architectural Coating (2029)

3.11.1. Onsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12385	0.10236	0.79416	1.11216	0.00173	0.01284	—	0.01284	0.01181	—	0.01181	—	133.510	133.510	0.00542	0.00108	—	133.968
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12385	0.10236	0.79416	1.11216	0.00173	0.01284	—	0.01284	0.01181	—	0.01181	—	133.510	133.510	0.00542	0.00108	—	133.968
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10616	0.08773	0.68071	0.95328	0.00148	0.01101	—	0.01101	0.01013	—	0.01013	—	114.437	114.437	0.00464	0.00093	—	114.830
Architectural Coatings	6.42523	6.42523	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01937	0.01601	0.12423	0.17397	0.00027	0.00201	—	0.00201	0.00185	—	0.00185	—	18.9463	18.9463	0.00077	0.00015	—	19.0113
Architectural Coatings	1.17260	1.17260	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.11.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.11.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12385	0.10236	0.79416	1.11216	0.00173	0.01284	—	0.01284	0.01181	—	0.01181	—	133.510	133.510	0.00542	0.00108	—	133.968
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12385	0.10236	0.79416	1.11216	0.00173	0.01284	—	0.01284	0.01181	—	0.01181	—	133.510	133.510	0.00542	0.00108	—	133.968
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10616	0.08773	0.68071	0.95328	0.00148	0.01101	—	0.01101	0.01013	—	0.01013	—	114.437	114.437	0.00464	0.00093	—	114.830
Architectural Coatings	6.42523	6.42523	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01937	0.01601	0.12423	0.17397	0.00027	0.00201	—	0.00201	0.00185	—	0.00185	—	18.9463	18.9463	0.00077	0.00015	—	19.0113
Architectural Coatings	1.17260	1.17260	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.11.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.12. Architectural Coating (2030)

3.12.1. Onsite - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11905	0.09839	0.78473	1.10719	0.00173	0.01097	—	0.01097	0.01009	—	0.01009	—	133.513	133.513	0.00542	0.00108	—	133.971
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11905	0.09839	0.78473	1.10719	0.00173	0.01097	—	0.01097	0.01009	—	0.01009	—	133.513	133.513	0.00542	0.00108	—	133.971
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05060	0.04182	0.33355	0.47061	0.00073	0.00466	—	0.00466	0.00429	—	0.00429	—	56.7495	56.7495	0.00230	0.00046	—	56.9443
Architectural Coatings	3.18621	3.18621	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00924	0.00763	0.06087	0.08589	0.00013	0.00085	—	0.00085	0.00078	—	0.00078	—	9.39553	9.39553	0.00038	0.00008	—	9.42777
Architectural Coatings	0.58148	0.58148	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.12.2. Offsite - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.12.3. Onsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11905	0.09839	0.78473	1.10719	0.00173	0.01097	—	0.01097	0.01009	—	0.01009	—	133.513	133.513	0.00542	0.00108	—	133.971
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11905	0.09839	0.78473	1.10719	0.00173	0.01097	—	0.01097	0.01009	—	0.01009	—	133.513	133.513	0.00542	0.00108	—	133.971
Architectural Coatings	7.49610	7.49610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.05060	0.04182	0.33355	0.47061	0.00073	0.00466	—	0.00466	0.00429	—	0.00429	—	56.7495	56.7495	0.00230	0.00046	—	56.9443
Architectural Coatings	3.18621	3.18621	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00924	0.00763	0.06087	0.08589	0.00013	0.00085	—	0.00085	0.00078	—	0.00078	—	9.39553	9.39553	0.00038	0.00008	—	9.42777
Architectural Coatings	0.58148	0.58148	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.12.4. Offsite - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	12.9109	11.8527	7.38865	88.9795	0.22038	0.12497	21.6159	21.7409	0.11635	5.49079	5.60714	—	22,531.9	22,531.9	1.09851	0.90732	49.9190	22,879.7
Research & Development	11.2189	10.2994	6.42040	77.3190	0.19150	0.10859	18.7832	18.8918	0.10110	4.77124	4.87234	—	19,579.2	19,579.2	0.95455	0.78842	43.3773	19,881.4
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Total	24.1298	22.1521	13.8090	166.299	0.41187	0.23356	40.3991	40.6326	0.21745	10.2620	10.4795	—	42,111.1	42,111.1	2.05306	1.69574	93.2963	42,761.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	12.8185	11.7452	8.06669	83.1789	0.21128	0.12506	21.6159	21.7409	0.11644	5.49079	5.60723	—	21,611.7	21,611.7	1.14920	0.95171	1.29433	21,925.3
Research & Development	11.1387	10.2061	7.00958	72.2786	0.18359	0.10867	18.7832	18.8919	0.10118	4.77124	4.87242	—	18,779.5	18,779.5	0.99860	0.82699	1.12471	19,052.1
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	23.9571	21.9513	15.0763	155.458	0.39487	0.23373	40.3991	40.6328	0.21761	10.2620	10.4796	—	40,391.2	40,391.2	2.14780	1.77871	2.41904	40,977.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	1.76203	1.61353	1.12524	11.7885	0.02963	0.01733	2.95928	2.97661	0.01614	0.75186	0.76799	—	2,749.35	2,749.35	0.14341	0.11986	2.71100	2,791.37
Research & Development	1.50041	1.37396	0.95817	10.0382	0.02523	0.01476	2.51990	2.53466	0.01374	0.64022	0.65396	—	2,341.14	2,341.14	0.12212	0.10207	2.30849	2,376.92
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	3.26245	2.98750	2.08341	21.8268	0.05486	0.03209	5.47918	5.51127	0.02988	1.39208	1.42196	—	5,090.49	5,090.49	0.26553	0.22193	5.01949	5,168.28

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	12.9109	11.8527	7.38865	88.9795	0.22038	0.12497	21.6159	21.7409	0.11635	5.49079	5.60714	—	22,531.9	22,531.9	1.09851	0.90732	49.9190	22,879.7
Research & Development	11.2189	10.2994	6.42040	77.3190	0.19150	0.10859	18.7832	18.8918	0.10110	4.77124	4.87234	—	19,579.2	19,579.2	0.95455	0.78842	43.3773	19,881.4
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	24.1298	22.1521	13.8090	166.299	0.41187	0.23356	40.3991	40.6326	0.21745	10.2620	10.4795	—	42,111.1	42,111.1	2.05306	1.69574	93.2963	42,761.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	12.8185	11.7452	8.06669	83.1789	0.21128	0.12506	21.6159	21.7409	0.11644	5.49079	5.60723	—	21,611.7	21,611.7	1.14920	0.95171	1.29433	21,925.3
Research & Development	11.1387	10.2061	7.00958	72.2786	0.18359	0.10867	18.7832	18.8919	0.10118	4.77124	4.87242	—	18,779.5	18,779.5	0.99860	0.82699	1.12471	19,052.1
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	23.9571	21.9513	15.0763	155.458	0.39487	0.23373	40.3991	40.6328	0.21761	10.2620	10.4796	—	40,391.2	40,391.2	2.14780	1.77871	2.41904	40,977.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	1.76203	1.61353	1.12524	11.7885	0.02963	0.01733	2.95928	2.97661	0.01614	0.75186	0.76799	—	2,749.35	2,749.35	0.14341	0.11986	2.71100	2,791.37
Research & Development	1.50041	1.37396	0.95817	10.0382	0.02523	0.01476	2.51990	2.53466	0.01374	0.64022	0.65396	—	2,341.14	2,341.14	0.12212	0.10207	2.30849	2,376.92

Enclose Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Total	3.26245	2.98750	2.08341	21.8268	0.05486	0.03209	5.47918	5.51127	0.02988	1.39208	1.42196	—	5,090.49	5,090.49	0.26553	0.22193	5.01949	5,168.28

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Enclose Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Research	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	18.4469	18.4469	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	2.24678	2.24678	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	10.4507	9.64508	0.49389	58.6975	0.00350	0.10426	—	0.10426	0.07881	—	0.07881	—	241.371	241.371	0.01013	0.00207	—	242.242
Total	31.1444	30.3387	0.49389	58.6975	0.00350	0.10426	—	0.10426	0.07881	—	0.07881	—	241.371	241.371	0.01013	0.00207	—	242.242
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	18.4469	18.4469	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	2.24678	2.24678	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	20.6937	20.6937	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.36656	3.36656	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.41004	0.41004	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.30634	1.20563	0.06174	7.33719	0.00044	0.01303	—	0.01303	0.00985	—	0.00985	—	27.3711	27.3711	0.00115	0.00023	—	27.4698
Total	5.08293	4.98223	0.06174	7.33719	0.00044	0.01303	—	0.01303	0.00985	—	0.00985	—	27.3711	27.3711	0.00115	0.00023	—	27.4698

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	18.4469	18.4469	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	2.24678	2.24678	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	10.4507	9.64508	0.49389	58.6975	0.00350	0.10426	—	0.10426	0.07881	—	0.07881	—	241.371	241.371	0.01013	0.00207	—	242.242
Total	31.1444	30.3387	0.49389	58.6975	0.00350	0.10426	—	0.10426	0.07881	—	0.07881	—	241.371	241.371	0.01013	0.00207	—	242.242
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	18.4469	18.4469	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	2.24678	2.24678	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	20.6937	20.6937	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	3.36656	3.36656	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.41004	0.41004	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipment	1.30634	1.20563	0.06174	7.33719	0.00044	0.01303	—	0.01303	0.00985	—	0.00985	—	27.3711	27.3711	0.00115	0.00023	—	27.4698
Total	5.08293	4.98223	0.06174	7.33719	0.00044	0.01303	—	0.01303	0.00985	—	0.00985	—	27.3711	27.3711	0.00115	0.00023	—	27.4698

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	200.670	0.00000	200.670	20.5764	0.48889	—	860.767
Research & Development	—	—	—	—	—	—	—	—	—	—	—	255.525	0.00000	255.525	26.2012	0.62253	—	1,096.07
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	456.195	0.00000	456.195	46.7775	1.11142	—	1,956.84
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	200.670	0.00000	200.670	20.5764	0.48889	—	860.767
Research & Development	—	—	—	—	—	—	—	—	—	—	—	255.525	0.00000	255.525	26.2012	0.62253	—	1,096.07

Enclosed	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	456.195	0.00000	456.195	46.7775	1.11142	—	1,956.84
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	33.2231	0.00000	33.2231	3.40665	0.08094	—	142.510
Research & Development	—	—	—	—	—	—	—	—	—	—	—	42.3051	0.00000	42.3051	4.33790	0.10307	—	181.467
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	75.5282	0.00000	75.5282	7.74455	0.18401	—	323.977

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	160.536	0.00000	160.536	16.4611	0.39111	—	688.614
Research & Development	—	—	—	—	—	—	—	—	—	—	—	204.420	0.00000	204.420	20.9609	0.49803	—	876.855
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	364.956	0.00000	364.956	37.4220	0.88914	—	1,565.47

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	160.536	0.00000	160.536	16.4611	0.39111	—	688.614
Research & Development	—	—	—	—	—	—	—	—	—	—	—	204.420	0.00000	204.420	20.9609	0.49803	—	876.855
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	364.956	0.00000	364.956	37.4220	0.88914	—	1,565.47
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	26.5785	0.00000	26.5785	2.72532	0.06475	—	114.008
Research & Development	—	—	—	—	—	—	—	—	—	—	—	33.8441	0.00000	33.8441	3.47032	0.08245	—	145.173
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	60.4226	0.00000	60.4226	6.19564	0.14721	—	259.181

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	295.315	0.00000	295.315	29.5156	0.00000	—	1,033.21
Research & Development	—	—	—	—	—	—	—	—	—	—	—	11.1072	0.00000	11.1072	1.11012	0.00000	—	38.8602
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	306.422	0.00000	306.422	30.6258	0.00000	—	1,072.07
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	295.315	0.00000	295.315	29.5156	0.00000	—	1,033.21
Research & Development	—	—	—	—	—	—	—	—	—	—	—	11.1072	0.00000	11.1072	1.11012	0.00000	—	38.8602
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	306.422	0.00000	306.422	30.6258	0.00000	—	1,072.07
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	48.8927	0.00000	48.8927	4.88665	0.00000	—	171.059
Research & Development	—	—	—	—	—	—	—	—	—	—	—	1.83892	0.00000	1.83892	0.18379	0.00000	—	6.43374

Enclose Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	50.7316	0.00000	50.7316	5.07045	0.00000	—	177.493

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	69.6943	0.00000	69.6943	6.96569	0.00000	—	243.837
Research & Development	—	—	—	—	—	—	—	—	—	—	—	2.62129	0.00000	2.62129	0.26199	0.00000	—	9.17100
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	72.3156	0.00000	72.3156	7.22768	0.00000	—	253.008
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	69.6943	0.00000	69.6943	6.96569	0.00000	—	243.837
Research & Development	—	—	—	—	—	—	—	—	—	—	—	2.62129	0.00000	2.62129	0.26199	0.00000	—	9.17100

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	72.3156	0.00000	72.3156	7.22768	0.00000	—	253.008
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	11.5387	0.00000	11.5387	1.15325	0.00000	—	40.3699
Research & Development	—	—	—	—	—	—	—	—	—	—	—	0.43398	0.00000	0.43398	0.04338	0.00000	—	1.51836
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	11.9727	0.00000	11.9727	1.19663	0.00000	—	41.8883

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43294	1.43294
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.92968	6.92968

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.36261	8.36261
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43294	1.43294
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.92968	6.92968
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.36261	8.36261
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.23724	0.23724
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.14729	1.14729
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.38453	1.38453

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43294	1.43294
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.92968	6.92968
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.36261	8.36261

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43294	1.43294
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.92968	6.92968
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.36261	8.36261
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.23724	0.23724
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.14729	1.14729
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.38453	1.38453

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

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

4.7.2. Mitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emerg ency Generat or	5.85512	5.32816	2.61298	13.5875	0.02561	0.11497	0.00000	0.11497	0.78389	0.00000	0.78389	0.00000	2,726.07	2,726.07	0.10945	0.02136	0.00000	2,735.17

Total	5.85512	5.32816	2.61298	13.5875	0.02561	0.11497	0.00000	0.11497	0.78389	0.00000	0.78389	0.00000	2,726.07	2,726.07	0.10945	0.02136	0.00000	2,735.17
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	5.85512	5.32816	2.61298	13.5875	0.02561	0.11497	0.00000	0.11497	0.78389	0.00000	0.78389	0.00000	2,726.07	2,726.07	0.10945	0.02136	0.00000	2,735.17
Total	5.85512	5.32816	2.61298	13.5875	0.02561	0.11497	0.00000	0.11497	0.78389	0.00000	0.78389	0.00000	2,726.07	2,726.07	0.10945	0.02136	0.00000	2,735.17
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.16482	1.05999	3.13345	2.70311	0.00509	-0.43934	0.00000	-0.43934	0.15595	0.00000	0.15595	0.00000	491.991	491.991	0.01975	0.00385	0.00000	493.633
Total	1.16482	1.05999	3.13345	2.70311	0.00509	-0.43934	0.00000	-0.43934	0.15595	0.00000	0.15595	0.00000	491.991	491.991	0.01975	0.00385	0.00000	493.633

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	5.85512	5.32816	2.61298	13.5875	0.02561	0.11497	0.00000	0.11497	0.78389	0.00000	0.78389	0.00000	2,726.07	2,726.07	0.10945	0.02136	0.00000	2,735.17
Total	5.85512	5.32816	2.61298	13.5875	0.02561	0.11497	0.00000	0.11497	0.78389	0.00000	0.78389	0.00000	2,726.07	2,726.07	0.10945	0.02136	0.00000	2,735.17
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	5.85512	5.32816	2.61298	13.5875	0.02561	0.11497	0.00000	0.11497	0.78389	0.00000	0.78389	0.00000	2,726.07	2,726.07	0.10945	0.02136	0.00000	2,735.17

Total	5.85512	5.32816	2.61298	13.5875	0.02561	0.11497	0.00000	0.11497	0.78389	0.00000	0.78389	0.00000	2,726.07	2,726.07	0.10945	0.02136	0.00000	2,735.17
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	1.16482	1.05999	3.13345	2.70311	0.00509	-0.43934	0.00000	-0.43934	0.15595	0.00000	0.15595	0.00000	491.991	491.991	0.01975	0.00385	0.00000	493.633
Total	1.16482	1.05999	3.13345	2.70311	0.00509	-0.43934	0.00000	-0.43934	0.15595	0.00000	0.15595	0.00000	491.991	491.991	0.01975	0.00385	0.00000	493.633

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.9.2. Mitigated

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

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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

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

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	7/1/2026	12/31/2026	6.00000	158.000	—
Grading/Excavation	Grading	9/1/2026	10/31/2026	6.00000	53.0000	—

Building Construction	Building Construction	1/1/2027	6/30/2030	6.00000	1,094.00	—
Offsite Improvements	Building Construction	1/1/2030	6/30/2030	6.00000	155.000	—
Paving	Paving	5/1/2030	6/30/2030	6.00000	52.0000	—
Architectural Coating	Architectural Coating	1/1/2027	6/30/2030	6.00000	1,094.00	—

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	Cranes	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Demolition	Air Compressors	Diesel	Average	3.00000	8.00000	37.0000	0.48000
Demolition	Air Compressors	Electric	Average	1.000000	8.00000	37.0000	0.48000
Demolition	Concrete/Industrial Saws	Electric	Average	1.000000	8.00000	33.0000	0.73000
Demolition	Forklifts	Diesel	Average	2.00000	8.00000	82.0000	0.20000
Demolition	Forklifts	Electric	Average	2.00000	8.00000	82.0000	0.20000
Demolition	Pumps	Diesel	Average	1.000000	8.00000	11.0000	0.74000
Demolition	Skid Steer Loaders	Diesel	Average	4.00000	8.00000	71.0000	0.37000
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Demolition	Aerial Lifts	Diesel	Average	2.00000	8.00000	46.0000	0.31000
Demolition	Aerial Lifts	Electric	Average	2.00000	8.00000	46.0000	0.31000
Demolition	Other Construction Equipment	Diesel	Average	1.000000	2.00000	82.0000	0.42000
Demolition	Off-Highway Trucks	Diesel	Average	1.000000	8.00000	376.000	0.38000
Grading/Excavation	Tractors/Loaders/Back hoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Grading/Excavation	Off-Highway Trucks	Diesel	Average	1.000000	8.00000	376.000	0.38000
Building Construction	Air Compressors	Diesel	Average	2.00000	8.00000	37.0000	0.48000
Building Construction	Air Compressors	Electric	Average	4.00000	8.00000	37.0000	0.48000

Building Construction	Cement and Mortar Mixers	Diesel	Average	1.000000	8.00000	10.00000	0.56000
Building Construction	Cement and Mortar Mixers	Electric	Average	1.000000	8.00000	10.00000	0.56000
Building Construction	Cranes	Diesel	Average	1.000000	8.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	2.00000	8.00000	82.0000	0.20000
Building Construction	Forklifts	Electric	Average	4.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	2.00000	14.0000	0.74000
Building Construction	Pumps	Diesel	Average	2.00000	8.00000	11.0000	0.74000
Building Construction	Skid Steer Loaders	Diesel	Average	2.00000	8.00000	71.0000	0.37000
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Average	6.00000	8.00000	46.0000	0.45000
Building Construction	Off-Highway Trucks	Diesel	Average	1.000000	8.00000	376.000	0.38000
Offsite Improvements	Cement and Mortar Mixers	Diesel	Average	2.00000	8.00000	10.00000	0.56000
Offsite Improvements	Cranes	Diesel	Average	1.000000	8.00000	367.000	0.29000
Offsite Improvements	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Offsite Improvements	Plate Compactors	Diesel	Average	1.000000	8.00000	8.00000	0.43000
Offsite Improvements	Surfacing Equipment	Diesel	Average	1.000000	8.00000	399.000	0.30000
Offsite Improvements	Aerial Lifts	Diesel	Average	1.000000	8.00000	46.0000	0.31000
Offsite Improvements	Other Construction Equipment	Diesel	Average	1.000000	8.00000	82.0000	0.42000
Offsite Improvements	Off-Highway Trucks	Diesel	Average	1.000000	8.00000	376.000	0.38000
Paving	Cement and Mortar Mixers	Diesel	Average	2.00000	8.00000	10.00000	0.56000
Paving	Air Compressors	Diesel	Average	1.000000	8.00000	37.0000	0.48000
Paving	Cranes	Diesel	Average	1.000000	8.00000	367.000	0.29000
Paving	Forklifts	Diesel	Average	1.000000	8.00000	82.0000	0.20000
Paving	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000

Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Pumps	Diesel	Average	1.000000	8.00000	11.0000	0.74000
Paving	Plate Compactors	Diesel	Average	2.00000	8.00000	8.00000	0.43000
Paving	Skid Steer Loaders	Diesel	Average	1.000000	8.00000	71.0000	0.37000
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Cranes	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Demolition	Air Compressors	Diesel	Average	3.00000	8.00000	37.0000	0.48000
Demolition	Air Compressors	Electric	Average	1.000000	8.00000	37.0000	0.48000
Demolition	Concrete/Industrial Saws	Electric	Average	1.000000	8.00000	33.0000	0.73000
Demolition	Forklifts	Diesel	Average	2.00000	8.00000	82.0000	0.20000
Demolition	Forklifts	Electric	Average	2.00000	8.00000	82.0000	0.20000
Demolition	Pumps	Diesel	Average	1.000000	8.00000	11.0000	0.74000
Demolition	Skid Steer Loaders	Diesel	Average	4.00000	8.00000	71.0000	0.37000
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Demolition	Aerial Lifts	Diesel	Average	2.00000	8.00000	46.0000	0.31000
Demolition	Aerial Lifts	Electric	Average	2.00000	8.00000	46.0000	0.31000
Demolition	Other Construction Equipment	Diesel	Average	1.000000	2.00000	82.0000	0.42000
Demolition	Off-Highway Trucks	Diesel	Average	1.000000	8.00000	376.000	0.38000
Grading/Excavation	Tractors/Loaders/Back hoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Grading/Excavation	Off-Highway Trucks	Diesel	Average	1.000000	8.00000	376.000	0.38000
Building Construction	Air Compressors	Diesel	Average	2.00000	8.00000	37.0000	0.48000

Building Construction	Air Compressors	Electric	Average	4.00000	8.00000	37.0000	0.48000
Building Construction	Cement and Mortar Mixers	Diesel	Average	1.000000	8.00000	10.00000	0.56000
Building Construction	Cement and Mortar Mixers	Electric	Average	1.000000	8.00000	10.00000	0.56000
Building Construction	Cranes	Diesel	Average	1.000000	8.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	2.00000	8.00000	82.0000	0.20000
Building Construction	Forklifts	Electric	Average	4.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	2.00000	14.0000	0.74000
Building Construction	Pumps	Diesel	Average	2.00000	8.00000	11.0000	0.74000
Building Construction	Skid Steer Loaders	Diesel	Average	2.00000	8.00000	71.0000	0.37000
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Average	6.00000	8.00000	46.0000	0.45000
Building Construction	Off-Highway Trucks	Diesel	Average	1.000000	8.00000	376.000	0.38000
Offsite Improvements	Cement and Mortar Mixers	Diesel	Average	2.00000	8.00000	10.00000	0.56000
Offsite Improvements	Cranes	Diesel	Average	1.000000	8.00000	367.000	0.29000
Offsite Improvements	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Offsite Improvements	Plate Compactors	Diesel	Average	1.000000	8.00000	8.00000	0.43000
Offsite Improvements	Surfacing Equipment	Diesel	Average	1.000000	8.00000	399.000	0.30000
Offsite Improvements	Aerial Lifts	Diesel	Average	1.000000	8.00000	46.0000	0.31000
Offsite Improvements	Other Construction Equipment	Diesel	Average	1.000000	8.00000	82.0000	0.42000
Offsite Improvements	Off-Highway Trucks	Diesel	Average	1.000000	8.00000	376.000	0.38000
Paving	Cement and Mortar Mixers	Diesel	Average	2.00000	8.00000	10.00000	0.56000
Paving	Air Compressors	Diesel	Average	1.000000	8.00000	37.0000	0.48000
Paving	Cranes	Diesel	Average	1.000000	8.00000	367.000	0.29000
Paving	Forklifts	Diesel	Average	1.000000	8.00000	82.0000	0.20000
Paving	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000

Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Pumps	Diesel	Average	1.000000	8.00000	11.0000	0.74000
Paving	Plate Compactors	Diesel	Average	2.00000	8.00000	8.00000	0.43000
Paving	Skid Steer Loaders	Diesel	Average	1.000000	8.00000	71.0000	0.37000
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	80.0000	18.5000	LDA,LDT1,LDT2
Demolition	Vendor	8.00000	10.2000	HHDT,MHDT
Demolition	Hauling	1.000000	26.0000	HHDT
Demolition	Onsite truck	1.000000	0.20000	HHDT
Grading/Excavation	Worker	20.0000	18.5000	LDA,LDT1,LDT2
Grading/Excavation	Vendor	8.00000	10.2000	HHDT,MHDT
Grading/Excavation	Hauling	32.0000	26.0000	HHDT
Grading/Excavation	Onsite truck	32.0000	0.20000	HHDT
Building Construction	Worker	1,000.000	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	30.0000	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Offsite Improvements	Worker	12.0000	18.5000	LDA,LDT1,LDT2
Offsite Improvements	Vendor	4.00000	10.2000	HHDT,MHDT
Offsite Improvements	Hauling	0.00000	20.0000	HHDT
Offsite Improvements	Onsite truck	—	—	HHDT

Paving	Worker	20.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	40.0000	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	0.00000	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	80.0000	18.5000	LDA,LDT1,LDT2
Demolition	Vendor	8.00000	10.2000	HHDT,MHDT
Demolition	Hauling	1.000000	26.0000	HHDT
Demolition	Onsite truck	1.000000	0.20000	HHDT
Grading/Excavation	Worker	20.0000	18.5000	LDA,LDT1,LDT2
Grading/Excavation	Vendor	8.00000	10.2000	HHDT,MHDT
Grading/Excavation	Hauling	32.0000	26.0000	HHDT
Grading/Excavation	Onsite truck	32.0000	0.20000	HHDT
Building Construction	Worker	1,000.000	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	30.0000	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Offsite Improvements	Worker	12.0000	18.5000	LDA,LDT1,LDT2
Offsite Improvements	Vendor	4.00000	10.2000	HHDT,MHDT
Offsite Improvements	Hauling	0.00000	20.0000	HHDT
Offsite Improvements	Onsite truck	—	—	HHDT
Paving	Worker	20.0000	18.5000	LDA,LDT1,LDT2

Paving	Vendor	40.0000	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	0.00000	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00000	0.00000	1,310,235	432,382	26,180.4

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	0.00000	0.00000	0.00000	12,700.0	0.00000
Grading/Excavation	—	8,645.00	0.00000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	10.0170

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Office Park	0.00000	0%
Paving	Research & Development	0.00000	0%
Paving	Enclosed Parking with Elevator	10.0170	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	615.471	690.400	0.04890	0.00690
2027	848.547	690.400	0.04890	0.00690
2028	848.547	690.400	0.04890	0.00690
2029	848.547	690.400	0.04890	0.00690
2030	848.547	690.400	0.04890	0.00690

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
Office Park	4,450.23	966.288	447.792	1,233,972	30,477.9	6,617.73	3,066.75	8,450,996
Research & Development	3,867.04	515.280	301.032	1,050,758	26,483.9	3,528.95	2,061.65	7,196,231
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
---------------	---------------	----------------	--------------	------------	-------------	--------------	------------	----------

Office Park	4,450.23	966.288	447.792	1,233,972	30,477.9	6,617.73	3,066.75	8,450,996
Research & Development	3,867.04	515.280	301.032	1,050,758	26,483.9	3,528.95	2,061.65	7,196,231
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Office Park	Wood Fireplaces	0	0
Office Park	Gas Fireplaces	0	0
Office Park	Propane Fireplaces	0	0
Office Park	Electric Fireplaces	0	0
Office Park	No Fireplaces	0	0
Office Park	Conventional Wood Stoves	0	0
Office Park	Catalytic Wood Stoves	0	0
Office Park	Non-Catalytic Wood Stoves	0	0
Office Park	Pellet Wood Stoves	0	0
Research & Development	Wood Fireplaces	0	0
Research & Development	Gas Fireplaces	0	0
Research & Development	Propane Fireplaces	0	0
Research & Development	Electric Fireplaces	0	0
Research & Development	No Fireplaces	0	0
Research & Development	Conventional Wood Stoves	0	0
Research & Development	Catalytic Wood Stoves	0	0
Research & Development	Non-Catalytic Wood Stoves	0	0
Research & Development	Pellet Wood Stoves	0	0
Enclosed Parking with Elevator	Wood Fireplaces	0	0

Enclosed Parking with Elevator	Gas Fireplaces	0	0
Enclosed Parking with Elevator	Propane Fireplaces	0	0
Enclosed Parking with Elevator	Electric Fireplaces	0	0
Enclosed Parking with Elevator	No Fireplaces	0	0
Enclosed Parking with Elevator	Conventional Wood Stoves	0	0
Enclosed Parking with Elevator	Catalytic Wood Stoves	0	0
Enclosed Parking with Elevator	Non-Catalytic Wood Stoves	0	0
Enclosed Parking with Elevator	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0.00000	0.00000	1,310,235	432,382	26,180.4

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	250.000

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	250.000

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)
Office Park	24,465,985	0.00000	0.0000	0.0000	0.00000
Research & Development	11,261,329	0.00000	0.0000	0.0000	0.00000
Enclosed Parking with Elevator	1,805,848	0.00000	0.0000	0.0000	0.00000

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)
Office Park	20,351,401	0.00000	0.0000	0.0000	0.00000
Research & Development	10,064,691	0.00000	0.0000	0.0000	0.00000
Enclosed Parking with Elevator	1,805,848	0.00000	0.0000	0.0000	0.00000

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Office Park	104,720,724	28,049.2
Research & Development	133,347,398	0.00000
Enclosed Parking with Elevator	0.00000	0.00000

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Office Park	83,776,579	22,439.3
Research & Development	106,677,919	0.00000
Enclosed Parking with Elevator	0.00000	0.00000

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Office Park	547.956	0.00000
Research & Development	20.6093	0.00000
Enclosed Parking with Elevator	0.00000	0.00000

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Office Park	129.318	0.00000
Research & Development	4.86380	0.00000
Enclosed Parking with Elevator	0.00000	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Office Park	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
Office Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Research & Development	Household refrigerators and/or freezers	R-134a	1,430.00	0.45455	0.60000	0.00000	1.000000
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00230	4.00000	4.00000	18.0000

5.14.2. Mitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Office Park	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
Office Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Research & Development	Household refrigerators and/or freezers	R-134a	1,430.00	0.45455	0.60000	0.00000	1.000000
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00230	4.00000	4.00000	18.0000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

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	3.00000	0.33000	50.0000	3,280.00	0.73000
Emergency Generator	Diesel	2.00000	0.00000	50.0000	2,000.00	0.73000
Emergency Generator	Diesel	8.00000	0.00000	50.0000	1,500.00	0.73000

5.16.2. Process Boilers

5.17. User Defined

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	5.68000	annual days of extreme heat
Extreme Precipitation	5.50000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00000	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 $\frac{3}{4}$ 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	50.5414

AQ-PM	69.4337
AQ-DPM	68.0398
Drinking Water	52.7164
Lead Risk Housing	60.3025
Pesticides	0.00000
Toxic Releases	75.7564
Traffic	92.3250
Effect Indicators	—
CleanUp Sites	11.8328
Groundwater	75.1619
Haz Waste Facilities/Generators	62.4752
Impaired Water Bodies	0.00000
Solid Waste	59.1753
Sensitive Population	—
Asthma	27.0563
Cardio-vascular	50.8973
Low Birth Weights	51.8219
Socioeconomic Factor Indicators	—
Education	17.2488
Housing	77.8200
Linguistic	—
Poverty	29.7362
Unemployment	17.1135

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	83.52367509
Employed	92.6344155
Median HI	85.06351854
Education	—
Bachelor's or higher	94.19992301
High school enrollment	7.442576671
Preschool enrollment	95.7141024
Transportation	—
Auto Access	20.53124599
Active commuting	60.74682407
Social	—
2-parent households	85.19183883
Voting	66.58539715
Neighborhood	—
Alcohol availability	41.01116387
Park access	59.60477351
Retail density	99.76902348
Supermarket access	58.09059412
Tree canopy	75.18285641
Housing	—
Homeownership	50.73784165
Housing habitability	39.44565636
Low-inc homeowner severe housing cost burden	31.93891954
Low-inc renter severe housing cost burden	68.25356089
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	89.88836135
Arthritis	47.0

Asthma ER Admissions	89.9
High Blood Pressure	38.5
Cancer (excluding skin)	12.2
Asthma	91.1
Coronary Heart Disease	54.4
Chronic Obstructive Pulmonary Disease	81.8
Diagnosed Diabetes	84.4
Life Expectancy at Birth	67.7
Cognitively Disabled	28.0
Physically Disabled	13.7
Heart Attack ER Admissions	67.4
Mental Health Not Good	93.4
Chronic Kidney Disease	64.9
Obesity	88.4
Pedestrian Injuries	66.3
Physical Health Not Good	88.1
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	93.7
No Leisure Time for Physical Activity	94.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	61.0
Elderly	21.1
English Speaking	59.2
Foreign-born	57.0

Outdoor Workers	98.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	32.9
Traffic Density	94.4
Traffic Access	87.4
Other Indices	—
Hardship	13.5
Other Decision Support	—
2016 Voting	30.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52.0000
Healthy Places Index Score for Project Location (b)	88.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Utility Information	LADWP Green Power (100% renewable electricity)
Land Use	See Project Description
Construction: Construction Phases	See construction assumptions
Construction: Off-Road Equipment	See construction assumptions
Operations: Vehicle Data	See trip generation
Operations: Energy Use	All-electric
Operations: Emergency Generators and Fire Pumps	Total of 13 generators, but a max of one will be tested per day. 50 hours per year
Operations: Generators + Pumps EF	Tier 4

8.2. Project Characteristics

8.2.2. Utility Information

Model Parameter	Units	Default Value	New Value
CO2	lb/MWh	690.400	0.00000
CH4	lb/MWh	0.04890	0.00000
N2O	lb/MWh	0.00690	0.00000

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	13.5262	9.20000
Landscape Area	sq. ft	—	2,000.00
Building Area	sq. ft	445,200	489,200
Landscape Area	sq. ft	—	0.00000

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Demolition	Demolition	End Date	8/12/2026	12/31/2026
Demolition	Demolition	Days/Week	5.00000	6.00000
Demolition	Demolition	Work Days per Phase	30.0000	158.000
Building Construction	Building Construction	Start Date	11/14/2026	1/1/2027
Building Construction	Building Construction	End Date	7/22/2028	6/30/2030
Building Construction	Building Construction	Days/Week	5.00000	6.00000
Building Construction	Building Construction	Work Days per Phase	440.000	1,094.00
Paving	Paving	Start Date	7/23/2028	5/1/2030
Paving	Paving	End Date	9/10/2028	6/30/2030
Paving	Paving	Days/Week	5.00000	6.00000
Paving	Paving	Work Days per Phase	35.0000	52.0000
Architectural Coating	Architectural Coating	Start Date	9/11/2028	1/1/2027
Architectural Coating	Architectural Coating	End Date	10/30/2028	6/30/2030
Architectural Coating	Architectural Coating	Days/Week	5.00000	6.00000
Architectural Coating	Architectural Coating	Work Days per Phase	35.0000	1,094.00

8.4.6. Trips and VMT

Phase Name	Trip Type	Model Parameter	Default Value	New Value
Demolition	Worker	One-Way Trips per Day	57.5000	80.0000
Demolition	Hauling	One-Way Trips per Day	0.93038	1.000000
Demolition	Hauling	Miles per Trip	20.0000	26.0000
Grading/Excavation	Worker	One-Way Trips per Day	7.50000	20.0000
Grading/Excavation	Hauling	One-Way Trips per Day	20.3962	32.0000
Grading/Excavation	Hauling	Miles per Trip	20.0000	26.0000

Building Construction	Worker	One-Way Trips per Day	480.792	1,000.000
Building Construction	Vendor	One-Way Trips per Day	221.199	30.0000
Offsite Improvements	Worker	One-Way Trips per Day	480.792	12.0000
Offsite Improvements	Vendor	One-Way Trips per Day	221.199	4.00000
Paving	Worker	One-Way Trips per Day	37.5000	20.0000
Architectural Coating	Worker	One-Way Trips per Day	192.317	0.00000

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
Office Park	Weekday Trip Rate	size/day	11.0700	7.55300
Research & Development	Weekday Trip Rate	size/day	11.2600	14.2590

8.5.3. Energy Usage

Land Use	Model Parameter	Units	Default Value	New Value
Office Park	Electricity	kWh/yr	9,385,219	24,465,985
Office Park	Electricity (Subject to Title 24)	kWh/yr	6,840,943	17,833,403
Office Park	Electricity (Not Subject to Title 24)	kWh/yr	2,544,277	6,632,582
Office Park	Natural Gas	kBTU/yr	11,838,123	0.00000
Office Park	Natural Gas (Subject to Title 24)	kBTU/yr	9,246,337	0.00000
Office Park	Natural Gas (Not Subject to Title 24)	kBTU/yr	2,591,787	0.00000
Research & Development	Electricity	kWh/yr	4,319,877	11,261,329
Research & Development	Electricity (Subject to Title 24)	kWh/yr	3,148,784	8,208,450
Research & Development	Electricity (Not Subject to Title 24)	kWh/yr	1,171,093	3,052,879
Research & Development	Natural Gas	kBTU/yr	5,448,912	0.00000

Research & Development	Natural Gas (Subject to Title 24)	kBTU/yr	4,255,951	0.00000
Research & Development	Natural Gas (Not Subject to Title 24)	kBTU/yr	1,192,961	0.00000

8.5.8. Stationary Sources

8.5.8.1. Emergency Generators and Fire Pumps

Equipment Type	Model Parameter	Default Value	New Value
Emergency Generator	Number per Day	1.000000	3.00000
Emergency Generator	Hours per Day	0.50000	0.33000
Emergency Generator	Hours per Year	8.00000	50.0000
Emergency Generator	Horsepower	5.00000	3,280.00
Emergency Generator	Horsepower	1,500.00	2,000.00

8.5.8.2. Generators + Pumps EF

Equipment Type	Model Parameter	Default Value	New Value
Emergency Generator	NOx	4.56000	0.50000
Emergency Generator	PM10E	0.15000	0.02200
Emergency Generator	PM10E	0.15000	0.02200
Emergency Generator	PM10E	0.15000	-2.85000

UCLA Research Park - Construction Onsite Detailed Report

Table of Contents

- 1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
 - 2.1. Construction Emissions Compared Against Thresholds
 - 2.2. Construction Emissions by Year, Unmitigated
 - 2.3. Construction Emissions by Year, Mitigated
- 3. Construction Emissions Details
 - 3.1. Demolition (2026) - Unmitigated
 - 3.2. Demolition (2026) - Mitigated
 - 3.3. Grading/Excavation (2026) - Unmitigated
 - 3.4. Grading/Excavation (2026) - Mitigated
 - 3.5. Building Construction (2027) - Unmitigated
 - 3.6. Building Construction (2027) - Mitigated

- 3.7. Building Construction (2028) - Unmitigated
- 3.8. Building Construction (2028) - Mitigated
- 3.9. Building Construction (2029) - Unmitigated
- 3.10. Building Construction (2029) - Mitigated
- 3.11. Building Construction (2030) - Unmitigated
- 3.12. Building Construction (2030) - Mitigated
- 3.13. Offsite Improvements (2030) - Unmitigated
- 3.14. Offsite Improvements (2030) - Mitigated
- 3.15. Paving (2030) - Unmitigated
- 3.16. Paving (2030) - Mitigated
- 3.17. Architectural Coating (2027) - Unmitigated
- 3.18. Architectural Coating (2027) - Mitigated
- 3.19. Architectural Coating (2028) - Unmitigated
- 3.20. Architectural Coating (2028) - Mitigated
- 3.21. Architectural Coating (2029) - Unmitigated
- 3.22. Architectural Coating (2029) - Mitigated
- 3.23. Architectural Coating (2030) - Unmitigated
- 3.24. Architectural Coating (2030) - Mitigated

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

8.1. Justifications

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	UCLA Research Park - Construction Onsite
Construction Start Date	7/1/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.7
Precipitation (days)	20
Location	34.04059616575768, -118.4261202729422
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4470
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas
App Version	2022.1.1.35

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
Office Park	589	1000sqft	9.2	589,200	2,000	—	—	—
Research & Development	271	1000sqft	6.2	271,200	0.00	—	—	—

Enclosed Parking with Elevator	1,113	Space	10	489,200	0.00	—	—	—
--------------------------------	-------	-------	----	---------	------	---	---	---

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-B	Water Active Demolition Sites

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	15	13	44	62	0.14	1.4	9.8	10	1.3	0.98	1.6	—	13,462	13,462	0.55	0.11	0.05	13,509
Mit.	15	13	44	62	0.14	1.4	9.8	10	1.3	0.98	1.6	—	13,462	13,462	0.55	0.11	0.05	13,509
% Reduced	—	—	—	—	—	—	< 0.5%	< 0.5%	—	1%	< 0.5%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12	12	31	43	0.10	0.94	9.8	10	0.86	0.98	1.6	—	10,012	10,012	0.41	0.08	< 0.005	10,046
Mit.	12	12	31	43	0.10	0.94	9.8	10	0.86	0.98	1.6	—	10,012	10,012	0.41	0.08	< 0.005	10,046
% Reduced	—	—	—	—	—	—	< 0.5%	< 0.5%	—	1%	< 0.5%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.3	8.8	19	24	0.05	0.57	1.5	1.7	0.52	0.15	0.52	—	4,746	4,746	0.19	0.04	< 0.005	4,763

Mit.	9.3	8.8	19	24	0.05	0.57	1.4	1.7	0.52	0.14	0.52	—	4,746	4,746	0.19	0.04	< 0.005	4,763
% Reduced	—	—	—	—	—	—	1%	1%	—	1%	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.7	1.6	3.5	4.4	0.01	0.10	0.26	0.31	0.10	0.03	0.10	—	786	786	0.03	0.01	< 0.005	789
Mit.	1.7	1.6	3.5	4.4	0.01	0.10	0.26	0.31	0.10	0.03	0.10	—	786	786	0.03	0.01	< 0.005	789
% Reduced	—	—	—	—	—	—	1%	1%	—	1%	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.1	2.6	22	31	0.06	0.67	9.8	10	0.61	0.98	1.6	—	6,427	6,427	0.28	0.06	0.05	6,453
2027	11	10	22	28	0.06	0.66	0.00	0.66	0.61	0.00	0.61	—	5,389	5,389	0.22	0.04	0.00	5,408
2028	11	10	21	28	0.06	0.58	0.00	0.58	0.54	0.00	0.54	—	5,390	5,390	0.22	0.04	0.00	5,409
2029	11	10	20	28	0.06	0.53	0.00	0.53	0.49	0.00	0.49	—	5,391	5,391	0.22	0.04	0.00	5,409
2030	15	13	44	62	0.14	1.4	0.00	1.4	1.3	0.00	1.3	—	13,462	13,462	0.55	0.11	0.00	13,509
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.1	2.6	22	31	0.06	0.67	9.8	10	0.61	0.98	1.6	—	6,428	6,428	0.28	0.06	< 0.005	6,454
2027	11	10	22	28	0.06	0.66	0.00	0.66	0.61	0.00	0.61	—	5,389	5,389	0.22	0.04	0.00	5,408
2028	11	10	21	28	0.06	0.58	0.00	0.58	0.54	0.00	0.54	—	5,390	5,390	0.22	0.04	0.00	5,409
2029	11	10	20	28	0.06	0.53	0.00	0.53	0.49	0.00	0.49	—	5,391	5,391	0.22	0.04	0.00	5,409
2030	12	12	31	43	0.10	0.94	0.00	0.94	0.86	0.00	0.86	—	10,012	10,012	0.41	0.08	0.00	10,046
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2026	1.1	0.92	8.0	11	0.02	0.24	1.5	1.7	0.22	0.15	0.37	—	2,210	2,210	0.09	0.02	< 0.005	2,219
2027	9.3	8.8	19	24	0.05	0.57	0.00	0.57	0.52	0.00	0.52	—	4,620	4,620	0.19	0.04	0.00	4,636
2028	9.2	8.7	18	24	0.05	0.50	0.00	0.50	0.46	0.00	0.46	—	4,634	4,634	0.19	0.04	0.00	4,650
2029	9.1	8.6	18	24	0.05	0.45	0.00	0.45	0.42	0.00	0.42	—	4,621	4,621	0.19	0.04	0.00	4,637
2030	5.6	5.2	15	21	0.05	0.46	0.00	0.46	0.43	0.00	0.43	—	4,746	4,746	0.19	0.04	0.00	4,763
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.20	0.17	1.5	2.1	< 0.005	0.04	0.26	0.31	0.04	0.03	0.07	—	366	366	0.02	< 0.005	< 0.005	367
2027	1.7	1.6	3.5	4.4	0.01	0.10	0.00	0.10	0.10	0.00	0.10	—	765	765	0.03	0.01	0.00	768
2028	1.7	1.6	3.3	4.4	0.01	0.09	0.00	0.09	0.08	0.00	0.08	—	767	767	0.03	0.01	0.00	770
2029	1.7	1.6	3.2	4.4	0.01	0.08	0.00	0.08	0.08	0.00	0.08	—	765	765	0.03	0.01	0.00	768
2030	1.0	0.94	2.8	3.9	0.01	0.08	0.00	0.08	0.08	0.00	0.08	—	786	786	0.03	0.01	0.00	789

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.1	2.6	22	31	0.06	0.67	9.8	10	0.61	0.98	1.6	—	6,427	6,427	0.28	0.06	0.05	6,453
2027	11	10	22	28	0.06	0.66	0.00	0.66	0.61	0.00	0.61	—	5,389	5,389	0.22	0.04	0.00	5,408
2028	11	10	21	28	0.06	0.58	0.00	0.58	0.54	0.00	0.54	—	5,390	5,390	0.22	0.04	0.00	5,409
2029	11	10	20	28	0.06	0.53	0.00	0.53	0.49	0.00	0.49	—	5,391	5,391	0.22	0.04	0.00	5,409
2030	15	13	44	62	0.14	1.4	0.00	1.4	1.3	0.00	1.3	—	13,462	13,462	0.55	0.11	0.00	13,509
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.1	2.6	22	31	0.06	0.67	9.8	10	0.61	0.98	1.6	—	6,428	6,428	0.28	0.06	< 0.005	6,454
2027	11	10	22	28	0.06	0.66	0.00	0.66	0.61	0.00	0.61	—	5,389	5,389	0.22	0.04	0.00	5,408
2028	11	10	21	28	0.06	0.58	0.00	0.58	0.54	0.00	0.54	—	5,390	5,390	0.22	0.04	0.00	5,409

2029	11	10	20	28	0.06	0.53	0.00	0.53	0.49	0.00	0.49	—	5,391	5,391	0.22	0.04	0.00	5,409
2030	12	12	31	43	0.10	0.94	0.00	0.94	0.86	0.00	0.86	—	10,012	10,012	0.41	0.08	0.00	10,046
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.1	0.92	8.0	11	0.02	0.24	1.4	1.7	0.22	0.14	0.37	—	2,210	2,210	0.09	0.02	< 0.005	2,219
2027	9.3	8.8	19	24	0.05	0.57	0.00	0.57	0.52	0.00	0.52	—	4,620	4,620	0.19	0.04	0.00	4,636
2028	9.2	8.7	18	24	0.05	0.50	0.00	0.50	0.46	0.00	0.46	—	4,634	4,634	0.19	0.04	0.00	4,650
2029	9.1	8.6	18	24	0.05	0.45	0.00	0.45	0.42	0.00	0.42	—	4,621	4,621	0.19	0.04	0.00	4,637
2030	5.6	5.2	15	21	0.05	0.46	0.00	0.46	0.43	0.00	0.43	—	4,746	4,746	0.19	0.04	0.00	4,763
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.20	0.17	1.5	2.1	< 0.005	0.04	0.26	0.31	0.04	0.03	0.07	—	366	366	0.02	< 0.005	< 0.005	367
2027	1.7	1.6	3.5	4.4	0.01	0.10	0.00	0.10	0.10	0.00	0.10	—	765	765	0.03	0.01	0.00	768
2028	1.7	1.6	3.3	4.4	0.01	0.09	0.00	0.09	0.08	0.00	0.08	—	767	767	0.03	0.01	0.00	770
2029	1.7	1.6	3.2	4.4	0.01	0.08	0.00	0.08	0.08	0.00	0.08	—	765	765	0.03	0.01	0.00	768
2030	1.0	0.94	2.8	3.9	0.01	0.08	0.00	0.08	0.08	0.00	0.08	—	786	786	0.03	0.01	0.00	789

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.3	1.9	17	24	0.04	0.51	—	0.51	0.47	—	0.47	—	4,434	4,434	0.18	0.04	—	4,449
Demolition	—	—	—	—	—	—	0.08	0.08	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.29	0.29	< 0.005	0.03	0.03	—	2.3	2.3	< 0.005	< 0.005	< 0.005	2.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.3	1.9	17	24	0.04	0.51	—	0.51	0.47	—	0.47	—	4,434	4,434	0.18	0.04	—	4,449
Demolition	—	—	—	—	—	—	0.08	0.08	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.29	0.29	< 0.005	0.03	0.03	—	2.4	2.4	< 0.005	< 0.005	< 0.005	2.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98	0.82	7.2	10	0.02	0.22	—	0.22	0.20	—	0.20	—	1,919	1,919	0.08	0.02	—	1,926
Demolition	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.12	0.12	< 0.005	0.01	0.01	—	1.0	1.0	< 0.005	< 0.005	< 0.005	1.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.3	1.9	< 0.005	0.04	—	0.04	0.04	—	0.04	—	318	318	0.01	< 0.005	—	319
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.17	0.17	< 0.005	< 0.005	< 0.005	0.18
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	—	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Demolition (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.3	1.9	17	24	0.04	0.51	—	0.51	0.47	—	0.47	—	4,434	4,434	0.18	0.04	—	4,449

Demolition	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.29	0.29	< 0.005	0.03	0.03	—	2.3	2.3	< 0.005	< 0.005	< 0.005	2.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.3	1.9	17	24	0.04	0.51	—	0.51	0.47	—	0.47	—	4,434	4,434	0.18	0.04	—	4,449
Demolition	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.29	0.29	< 0.005	0.03	0.03	—	2.4	2.4	< 0.005	< 0.005	< 0.005	2.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98	0.82	7.2	10	0.02	0.22	—	0.22	0.20	—	0.20	—	1,919	1,919	0.08	0.02	—	1,926
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.12	0.12	< 0.005	0.01	0.01	—	1.0	1.0	< 0.005	< 0.005	< 0.005	1.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.3	1.9	< 0.005	0.04	—	0.04	0.04	—	0.04	—	318	318	0.01	< 0.005	—	319
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.17	0.17	< 0.005	< 0.005	< 0.005	0.18
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	—	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading/Excavation (2026) - Unmitigated

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

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

Off-Road Equipm	0.77	0.64	4.6	6.8	0.02	0.16	—	0.16	0.15	—	0.15	—	1,914	1,914	0.08	0.02	—	1,921
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.05	0.02	0.47	0.35	< 0.005	< 0.005	9.4	9.4	< 0.005	0.94	0.94	—	75	75	0.02	0.01	0.05	79
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.77	0.64	4.6	6.8	0.02	0.16	—	0.16	0.15	—	0.15	—	1,914	1,914	0.08	0.02	—	1,921
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.04	0.02	0.49	0.36	< 0.005	< 0.005	9.4	9.4	< 0.005	0.94	0.94	—	76	76	0.02	0.01	< 0.005	80
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.11	0.09	0.67	0.99	< 0.005	0.02	—	0.02	0.02	—	0.02	—	278	278	0.01	< 0.005	—	279
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.07	0.05	< 0.005	< 0.005	1.3	1.3	< 0.005	0.13	0.13	—	11	11	< 0.005	< 0.005	< 0.005	12
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm ent	0.02	0.02	0.12	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	46	46	< 0.005	< 0.005	—	46
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.24	0.24	< 0.005	0.02	0.02	—	1.8	1.8	< 0.005	< 0.005	< 0.005	1.9
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	—	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading/Excavation (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	0.64	4.6	6.8	0.02	0.16	—	0.16	0.15	—	0.15	—	1,914	1,914	0.08	0.02	—	1,921
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.05	0.02	0.47	0.35	< 0.005	< 0.005	9.4	9.4	< 0.005	0.94	0.94	—	75	75	0.02	0.01	0.05	79
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	0.64	4.6	6.8	0.02	0.16	—	0.16	0.15	—	0.15	—	1,914	1,914	0.08	0.02	—	1,921
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.04	0.02	0.49	0.36	< 0.005	< 0.005	9.4	9.4	< 0.005	0.94	0.94	—	76	76	0.02	0.01	< 0.005	80
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.67	0.99	< 0.005	0.02	—	0.02	0.02	—	0.02	—	278	278	0.01	< 0.005	—	279

Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.01	< 0.005	0.07	0.05	< 0.005	< 0.005	1.3	1.3	< 0.005	0.13	0.13	—	11	11	< 0.005	< 0.005	< 0.005	12
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.12	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	46	46	< 0.005	< 0.005	—	46
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.24	0.24	< 0.005	0.02	0.02	—	1.8	1.8	< 0.005	< 0.005	< 0.005	1.9
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	—	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.2	2.7	21	27	0.06	0.64	—	0.64	0.59	—	0.59	—	5,255	5,255	0.21	0.04	—	5,273
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.2	2.7	21	27	0.06	0.64	—	0.64	0.59	—	0.59	—	5,255	5,255	0.21	0.04	—	5,273
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.7	2.3	18	23	0.05	0.55	—	0.55	0.51	—	0.51	—	4,504	4,504	0.18	0.04	—	4,519

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.50	0.42	3.3	4.2	0.01	0.10	—	0.10	0.09	—	0.09	—	746	746	0.03	0.01	—	748
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.2	2.7	21	27	0.06	0.64	—	0.64	0.59	—	0.59	—	5,255	5,255	0.21	0.04	—	5,273
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.2	2.7	21	27	0.06	0.64	—	0.64	0.59	—	0.59	—	5,255	5,255	0.21	0.04	—	5,273
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.7	2.3	18	23	0.05	0.55	—	0.55	0.51	—	0.51	—	4,504	4,504	0.18	0.04	—	4,519
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.42	3.3	4.2	0.01	0.10	—	0.10	0.09	—	0.09	—	746	746	0.03	0.01	—	748

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	3.1	2.6	20	27	0.06	0.57	—	0.57	0.52	—	0.52	—	5,256	5,256	0.21	0.04	—	5,274
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	3.1	2.6	20	27	0.06	0.57	—	0.57	0.52	—	0.52	—	5,256	5,256	0.21	0.04	—	5,274
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	2.6	2.2	17	23	0.05	0.49	—	0.49	0.45	—	0.45	—	4,517	4,517	0.18	0.04	—	4,533
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.48	0.40	3.2	4.2	0.01	0.09	—	0.09	0.08	—	0.08	—	748	748	0.03	0.01	—	750
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.1	2.6	20	27	0.06	0.57	—	0.57	0.52	—	0.52	—	5,256	5,256	0.21	0.04	—	5,274

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	3.1	2.6	20	27	0.06	0.57	—	0.57	0.52	—	0.52	—	5,256	5,256	0.21	0.04	—	5,274
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	2.6	2.2	17	23	0.05	0.49	—	0.49	0.45	—	0.45	—	4,517	4,517	0.18	0.04	—	4,533
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.48	0.40	3.2	4.2	0.01	0.09	—	0.09	0.08	—	0.08	—	748	748	0.03	0.01	—	750
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2029) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.0	2.5	20	27	0.06	0.52	—	0.52	0.47	—	0.47	—	5,256	5,256	0.21	0.04	—	5,274
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm ent	3.0	2.5	20	27	0.06	0.52	—	0.52	0.47	—	0.47	—	5,256	5,256	0.21	0.04	—	5,274
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	2.5	2.1	17	23	0.05	0.44	—	0.44	0.41	—	0.41	—	4,505	4,505	0.18	0.04	—	4,521
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.46	0.39	3.1	4.2	0.01	0.08	—	0.08	0.07	—	0.07	—	746	746	0.03	0.01	—	748
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2029) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.0	2.5	20	27	0.06	0.52	—	0.52	0.47	—	0.47	—	5,256	5,256	0.21	0.04	—	5,274
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.0	2.5	20	27	0.06	0.52	—	0.52	0.47	—	0.47	—	5,256	5,256	0.21	0.04	—	5,274
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	2.5	2.1	17	23	0.05	0.44	—	0.44	0.41	—	0.41	—	4,505	4,505	0.18	0.04	—	4,521
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.46	0.39	3.1	4.2	0.01	0.08	—	0.08	0.07	—	0.07	—	746	746	0.03	0.01	—	748
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2030) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.9	2.4	19	27	0.06	0.48	—	0.48	0.44	—	0.44	—	5,256	5,256	0.21	0.04	—	5,274
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.9	2.4	19	27	0.06	0.48	—	0.48	0.44	—	0.44	—	5,256	5,256	0.21	0.04	—	5,274
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.2	1.0	8.2	11	0.02	0.20	—	0.20	0.19	—	0.19	—	2,234	2,234	0.09	0.02	—	2,242
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.19	1.5	2.1	< 0.005	0.04	—	0.04	0.03	—	0.03	—	370	370	0.02	< 0.005	—	371
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Building Construction (2030) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.9	2.4	19	27	0.06	0.48	—	0.48	0.44	—	0.44	—	5,256	5,256	0.21	0.04	—	5,274
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.9	2.4	19	27	0.06	0.48	—	0.48	0.44	—	0.44	—	5,256	5,256	0.21	0.04	—	5,274
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.2	1.0	8.2	11	0.02	0.20	—	0.20	0.19	—	0.19	—	2,234	2,234	0.09	0.02	—	2,242
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.19	1.5	2.1	< 0.005	0.04	—	0.04	0.03	—	0.03	—	370	370	0.02	< 0.005	—	371
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Offsite Improvements (2030) - Unmitigated

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

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

Off-Road	1.8	1.5	11	16	0.04	0.45	—	0.45	0.41	—	0.41	—	4,621	4,621	0.19	0.04	—	4,637
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.8	1.5	11	16	0.04	0.45	—	0.45	0.41	—	0.41	—	4,621	4,621	0.19	0.04	—	4,637
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.65	4.7	6.6	0.02	0.19	—	0.19	0.18	—	0.18	—	1,962	1,962	0.08	0.02	—	1,969
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	0.86	1.2	< 0.005	0.03	—	0.03	0.03	—	0.03	—	325	325	0.01	< 0.005	—	326
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Offsite Improvements (2030) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.8	1.5	11	16	0.04	0.45	—	0.45	0.41	—	0.41	—	4,621	4,621	0.19	0.04	—	4,637
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.8	1.5	11	16	0.04	0.45	—	0.45	0.41	—	0.41	—	4,621	4,621	0.19	0.04	—	4,637
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.65	4.7	6.6	0.02	0.19	—	0.19	0.18	—	0.18	—	1,962	1,962	0.08	0.02	—	1,969
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	0.86	1.2	< 0.005	0.03	—	0.03	0.03	—	0.03	—	325	325	0.01	< 0.005	—	326
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Paving (2030) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	1.7	1.4	13	19	0.03	0.46	—	0.46	0.42	—	0.42	—	3,450	3,450	0.14	0.03	—	3,462
Paving	0.50	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.25	0.21	1.9	2.7	< 0.005	0.06	—	0.06	0.06	—	0.06	—	492	492	0.02	< 0.005	—	493
Paving	0.07	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.35	0.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81	81	< 0.005	< 0.005	—	82
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Paving (2030) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.7	1.4	13	19	0.03	0.46	—	0.46	0.42	—	0.42	—	3,450	3,450	0.14	0.03	—	3,462
Paving	0.50	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.9	2.7	< 0.005	0.06	—	0.06	0.06	—	0.06	—	492	492	0.02	< 0.005	—	493
Paving	0.07	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.35	0.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81	81	< 0.005	< 0.005	—	82
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.1	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134

Architectural Coating	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.1	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.71	0.96	< 0.005	0.02	—	0.02	0.02	—	0.02	—	114	114	< 0.005	< 0.005	—	115
Architectural Coatings	6.4	6.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19	19	< 0.005	< 0.005	—	19

Architectural Coatings	1.2	1.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.1	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.1	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.71	0.96	< 0.005	0.02	—	0.02	0.02	—	0.02	—	114	114	< 0.005	< 0.005	—	115
Architectural Coatings	6.4	6.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.02	0.02	0.13	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19	19	< 0.005	< 0.005	—	19
Architect ural Coating s	1.2	1.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.13	0.11	0.81	1.1	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architect ural Coating s	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.13	0.11	0.81	1.1	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architect ural Coating s	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.11	0.09	0.69	0.96	< 0.005	0.01	—	0.01	0.01	—	0.01	—	115	115	< 0.005	< 0.005	—	115
Architectural Coatings	6.4	6.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19	19	< 0.005	< 0.005	—	19
Architectural Coatings	1.2	1.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.20. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.81	1.1	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.81	1.1	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134

Architectural Coatings	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.69	0.96	< 0.005	0.01	—	0.01	0.01	—	0.01	—	115	115	< 0.005	< 0.005	—	115
Architectural Coatings	6.4	6.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19	19	< 0.005	< 0.005	—	19
Architectural Coatings	1.2	1.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Architectural Coating (2029) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.79	1.1	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.12	0.10	0.79	1.1	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architect ural Coating s	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.11	0.09	0.68	0.95	< 0.005	0.01	—	0.01	0.01	—	0.01	—	114	114	< 0.005	< 0.005	—	115
Architect ural Coating s	6.4	6.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.02	0.02	0.12	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19	19	< 0.005	< 0.005	—	19
Architect ural Coating s	1.2	1.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.22. Architectural Coating (2029) - Mitigated

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

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

Off-Road	0.12	0.10	0.79	1.1	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.79	1.1	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.68	0.95	< 0.005	0.01	—	0.01	0.01	—	0.01	—	114	114	< 0.005	< 0.005	—	115
Architectural Coatings	6.4	6.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.12	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19	19	< 0.005	< 0.005	—	19

Architect Coatings	1.2	1.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Architectural Coating (2030) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.78	1.1	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.78	1.1	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.33	0.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	57	57	< 0.005	< 0.005	—	57
Architectural Coatings	3.2	3.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.4	9.4	< 0.005	< 0.005	—	9.4
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.24. Architectural Coating (2030) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.78	1.1	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.78	1.1	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	7.5	7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.33	0.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	57	57	< 0.005	< 0.005	—	57

Architect Coatings	3.2	3.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.4	9.4	< 0.005	< 0.005	—	9.4
Architect ural Coating s	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

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

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

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	7/1/2026	12/31/2026	6.0	158	—
Grading/Excavation	Grading	9/1/2026	10/31/2026	6.0	53	—
Building Construction	Building Construction	1/1/2027	6/30/2030	6.0	1,094	—
Offsite Improvements	Building Construction	1/1/2030	6/30/2030	6.0	155	—
Paving	Paving	5/1/2030	6/30/2030	6.0	52	—
Architectural Coating	Architectural Coating	1/1/2027	6/30/2030	6.0	1,094	—

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	8.0	33	0.73
Demolition	Air Compressors	Diesel	Average	3.0	8.0	37	0.48
Demolition	Air Compressors	Electric	Average	1.00	8.0	37	0.48
Demolition	Concrete/Industrial Saws	Electric	Average	1.00	8.0	33	0.73
Demolition	Forklifts	Diesel	Average	2.0	8.0	82	0.20
Demolition	Forklifts	Electric	Average	2.0	8.0	82	0.20
Demolition	Pumps	Diesel	Average	1.00	8.0	11	0.74
Demolition	Skid Steer Loaders	Diesel	Average	4.0	8.0	71	0.37
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	2.0	8.0	84	0.37
Demolition	Aerial Lifts	Diesel	Average	2.0	8.0	46	0.31
Demolition	Aerial Lifts	Electric	Average	2.0	8.0	46	0.31
Demolition	Other Construction Equipment	Diesel	Average	1.00	2.0	82	0.42
Demolition	Off-Highway Trucks	Diesel	Average	1.00	8.0	376	0.38
Grading/Excavation	Tractors/Loaders/Back hoes	Diesel	Average	2.0	8.0	84	0.37
Grading/Excavation	Off-Highway Trucks	Diesel	Average	1.00	8.0	376	0.38
Building Construction	Air Compressors	Diesel	Average	2.0	8.0	37	0.48
Building Construction	Air Compressors	Electric	Average	4.0	8.0	37	0.48
Building Construction	Cement and Mortar Mixers	Diesel	Average	1.00	8.0	10.0	0.56
Building Construction	Cement and Mortar Mixers	Electric	Average	1.00	8.0	10.0	0.56
Building Construction	Cranes	Diesel	Average	1.00	8.0	367	0.29

Building Construction	Forklifts	Diesel	Average	2.0	8.0	82	0.20
Building Construction	Forklifts	Electric	Average	4.0	8.0	82	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	2.0	14	0.74
Building Construction	Pumps	Diesel	Average	2.0	8.0	11	0.74
Building Construction	Skid Steer Loaders	Diesel	Average	2.0	8.0	71	0.37
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.0	84	0.37
Building Construction	Welders	Diesel	Average	6.0	8.0	46	0.45
Building Construction	Off-Highway Trucks	Diesel	Average	1.00	8.0	376	0.38
Offsite Improvements	Cement and Mortar Mixers	Diesel	Average	2.0	8.0	10.0	0.56
Offsite Improvements	Cranes	Diesel	Average	1.00	8.0	367	0.29
Offsite Improvements	Graders	Diesel	Average	1.00	8.0	148	0.41
Offsite Improvements	Plate Compactors	Diesel	Average	1.00	8.0	8.0	0.43
Offsite Improvements	Surfacing Equipment	Diesel	Average	1.00	8.0	399	0.30
Offsite Improvements	Aerial Lifts	Diesel	Average	1.00	8.0	46	0.31
Offsite Improvements	Other Construction Equipment	Diesel	Average	1.00	8.0	82	0.42
Offsite Improvements	Off-Highway Trucks	Diesel	Average	1.00	8.0	376	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	2.0	8.0	10.0	0.56
Paving	Air Compressors	Diesel	Average	1.00	8.0	37	0.48
Paving	Cranes	Diesel	Average	1.00	8.0	367	0.29
Paving	Forklifts	Diesel	Average	1.00	8.0	82	0.20
Paving	Generator Sets	Diesel	Average	1.00	8.0	14	0.74
Paving	Pavers	Diesel	Average	2.0	8.0	81	0.42
Paving	Paving Equipment	Diesel	Average	2.0	8.0	89	0.36
Paving	Pumps	Diesel	Average	1.00	8.0	11	0.74
Paving	Plate Compactors	Diesel	Average	2.0	8.0	8.0	0.43
Paving	Skid Steer Loaders	Diesel	Average	1.00	8.0	71	0.37

Paving	Tractors/Loaders/Back	Diesel	Average	1.00	8.0	84	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.0	37	0.48

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	8.0	33	0.73
Demolition	Air Compressors	Diesel	Average	3.0	8.0	37	0.48
Demolition	Air Compressors	Electric	Average	1.00	8.0	37	0.48
Demolition	Concrete/Industrial Saws	Electric	Average	1.00	8.0	33	0.73
Demolition	Forklifts	Diesel	Average	2.0	8.0	82	0.20
Demolition	Forklifts	Electric	Average	2.0	8.0	82	0.20
Demolition	Pumps	Diesel	Average	1.00	8.0	11	0.74
Demolition	Skid Steer Loaders	Diesel	Average	4.0	8.0	71	0.37
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	2.0	8.0	84	0.37
Demolition	Aerial Lifts	Diesel	Average	2.0	8.0	46	0.31
Demolition	Aerial Lifts	Electric	Average	2.0	8.0	46	0.31
Demolition	Other Construction Equipment	Diesel	Average	1.00	2.0	82	0.42
Demolition	Off-Highway Trucks	Diesel	Average	1.00	8.0	376	0.38
Grading/Excavation	Tractors/Loaders/Back hoes	Diesel	Average	2.0	8.0	84	0.37
Grading/Excavation	Off-Highway Trucks	Diesel	Average	1.00	8.0	376	0.38
Building Construction	Air Compressors	Diesel	Average	2.0	8.0	37	0.48
Building Construction	Air Compressors	Electric	Average	4.0	8.0	37	0.48
Building Construction	Cement and Mortar Mixers	Diesel	Average	1.00	8.0	10.0	0.56
Building Construction	Cement and Mortar Mixers	Electric	Average	1.00	8.0	10.0	0.56

Building Construction	Cranes	Diesel	Average	1.00	8.0	367	0.29
Building Construction	Forklifts	Diesel	Average	2.0	8.0	82	0.20
Building Construction	Forklifts	Electric	Average	4.0	8.0	82	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	2.0	14	0.74
Building Construction	Pumps	Diesel	Average	2.0	8.0	11	0.74
Building Construction	Skid Steer Loaders	Diesel	Average	2.0	8.0	71	0.37
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.0	84	0.37
Building Construction	Welders	Diesel	Average	6.0	8.0	46	0.45
Building Construction	Off-Highway Trucks	Diesel	Average	1.00	8.0	376	0.38
Offsite Improvements	Cement and Mortar Mixers	Diesel	Average	2.0	8.0	10.0	0.56
Offsite Improvements	Cranes	Diesel	Average	1.00	8.0	367	0.29
Offsite Improvements	Graders	Diesel	Average	1.00	8.0	148	0.41
Offsite Improvements	Plate Compactors	Diesel	Average	1.00	8.0	8.0	0.43
Offsite Improvements	Surfacing Equipment	Diesel	Average	1.00	8.0	399	0.30
Offsite Improvements	Aerial Lifts	Diesel	Average	1.00	8.0	46	0.31
Offsite Improvements	Other Construction Equipment	Diesel	Average	1.00	8.0	82	0.42
Offsite Improvements	Off-Highway Trucks	Diesel	Average	1.00	8.0	376	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	2.0	8.0	10.0	0.56
Paving	Air Compressors	Diesel	Average	1.00	8.0	37	0.48
Paving	Cranes	Diesel	Average	1.00	8.0	367	0.29
Paving	Forklifts	Diesel	Average	1.00	8.0	82	0.20
Paving	Generator Sets	Diesel	Average	1.00	8.0	14	0.74
Paving	Pavers	Diesel	Average	2.0	8.0	81	0.42
Paving	Paving Equipment	Diesel	Average	2.0	8.0	89	0.36
Paving	Pumps	Diesel	Average	1.00	8.0	11	0.74
Paving	Plate Compactors	Diesel	Average	2.0	8.0	8.0	0.43

Paving	Skid Steer Loaders	Diesel	Average	1.00	8.0	71	0.37
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.0	84	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.0	37	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	0.00	19	LDA,LDT1,LDT2
Demolition	Vendor	0.00	10	HHDT,MHDT
Demolition	Hauling	0.00	26	HHDT
Demolition	Onsite truck	1.00	0.20	HHDT
Grading/Excavation	Worker	0.00	19	LDA,LDT1,LDT2
Grading/Excavation	Vendor	0.00	10	HHDT,MHDT
Grading/Excavation	Hauling	0.00	26	HHDT
Grading/Excavation	Onsite truck	32	0.20	HHDT
Building Construction	Worker	0.00	19	LDA,LDT1,LDT2
Building Construction	Vendor	0.00	10	HHDT,MHDT
Building Construction	Hauling	0.00	20	HHDT
Building Construction	Onsite truck	—	—	HHDT
Offsite Improvements	Worker	0.00	19	LDA,LDT1,LDT2
Offsite Improvements	Vendor	0.00	10	HHDT,MHDT
Offsite Improvements	Hauling	0.00	20	HHDT
Offsite Improvements	Onsite truck	—	—	HHDT
Paving	Worker	0.00	19	LDA,LDT1,LDT2
Paving	Vendor	0.00	10	HHDT,MHDT
Paving	Hauling	0.00	20	HHDT
Paving	Onsite truck	—	—	HHDT

Architectural Coating	Worker	0.00	19	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10	HHDT,MHDT
Architectural Coating	Hauling	0.00	20	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	0.00	19	LDA,LDT1,LDT2
Demolition	Vendor	0.00	10	HHDT,MHDT
Demolition	Hauling	0.00	26	HHDT
Demolition	Onsite truck	1.00	0.20	HHDT
Grading/Excavation	Worker	0.00	19	LDA,LDT1,LDT2
Grading/Excavation	Vendor	0.00	10	HHDT,MHDT
Grading/Excavation	Hauling	0.00	26	HHDT
Grading/Excavation	Onsite truck	32	0.20	HHDT
Building Construction	Worker	0.00	19	LDA,LDT1,LDT2
Building Construction	Vendor	0.00	10	HHDT,MHDT
Building Construction	Hauling	0.00	20	HHDT
Building Construction	Onsite truck	—	—	HHDT
Offsite Improvements	Worker	0.00	19	LDA,LDT1,LDT2
Offsite Improvements	Vendor	0.00	10	HHDT,MHDT
Offsite Improvements	Hauling	0.00	20	HHDT
Offsite Improvements	Onsite truck	—	—	HHDT
Paving	Worker	0.00	19	LDA,LDT1,LDT2
Paving	Vendor	0.00	10	HHDT,MHDT
Paving	Hauling	0.00	20	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	0.00	19	LDA,LDT1,LDT2

Architectural Coating	Vendor	—	10	HHDT,MHDT
Architectural Coating	Hauling	0.00	20	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	1,310,235	432,382	26,180

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	12,700	0.00
Grading/Excavation	—	8,645	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	10

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Office Park	0.00	0%
Paving	Research & Development	0.00	0%

Paving	Enclosed Parking with Elevator	10	100%
--------	--------------------------------	----	------

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	615	690	0.05	0.01
2027	849	690	0.05	0.01
2028	849	690	0.05	0.01
2029	849	690	0.05	0.01
2030	849	690	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	5.7	annual days of extreme heat
Extreme Precipitation	5.5	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 $\frac{3}{4}$ 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	51
AQ-PM	69
AQ-DPM	68
Drinking Water	53
Lead Risk Housing	60
Pesticides	0.00
Toxic Releases	76
Traffic	92
Effect Indicators	—
CleanUp Sites	12
Groundwater	75
Haz Waste Facilities/Generators	62
Impaired Water Bodies	0.00
Solid Waste	59
Sensitive Population	—
Asthma	27
Cardio-vascular	51
Low Birth Weights	52

Socioeconomic Factor Indicators	—
Education	17
Housing	78
Linguistic	—
Poverty	30
Unemployment	17

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	83.52367509
Employed	92.6344155
Median HI	85.06351854
Education	—
Bachelor's or higher	94.19992301
High school enrollment	7.442576671
Preschool enrollment	95.7141024
Transportation	—
Auto Access	20.53124599
Active commuting	60.74682407
Social	—
2-parent households	85.19183883
Voting	66.58539715
Neighborhood	—
Alcohol availability	41.01116387
Park access	59.60477351
Retail density	99.76902348

Supermarket access	58.09059412
Tree canopy	75.18285641
Housing	—
Homeownership	50.73784165
Housing habitability	39.44565636
Low-inc homeowner severe housing cost burden	31.93891954
Low-inc renter severe housing cost burden	68.25356089
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	89.88836135
Arthritis	47.0
Asthma ER Admissions	89.9
High Blood Pressure	38.5
Cancer (excluding skin)	12.2
Asthma	91.1
Coronary Heart Disease	54.4
Chronic Obstructive Pulmonary Disease	81.8
Diagnosed Diabetes	84.4
Life Expectancy at Birth	67.7
Cognitively Disabled	28.0
Physically Disabled	13.7
Heart Attack ER Admissions	67.4
Mental Health Not Good	93.4
Chronic Kidney Disease	64.9
Obesity	88.4
Pedestrian Injuries	66.3
Physical Health Not Good	88.1
Stroke	70.4

Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	93.7
No Leisure Time for Physical Activity	94.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	61.0
Elderly	21.1
English Speaking	59.2
Foreign-born	57.0
Outdoor Workers	98.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	32.9
Traffic Density	94.4
Traffic Access	87.4
Other Indices	—
Hardship	13.5
Other Decision Support	—
2016 Voting	30.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52
Healthy Places Index Score for Project Location (b)	88
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Utility Information	LADWP Green Power (100% renewable electricity)
Land Use	See Project Description
Construction: Construction Phases	See construction assumptions
Construction: Off-Road Equipment	See construction assumptions
Construction: Trips and VMT	Onsite Only
Operations: Vehicle Data	See trip generation
Operations: Energy Use	All-electric
Operations: Emergency Generators and Fire Pumps	Total of 13 generators, but a max of one will be tested per day. 50 hours per year
Operations: Generators + Pumps EF	Tier 4