BUENA VISTA REDEVELOPMENT AIR QUALITY & GREENHOUSE GAS ASSESSMENT

Palo Alto, California

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Prepared for:

Maria Kisyova
Project Manager
David J. Powers & Associates, Inc.
1871 The Alameda, Suite 200
San José, CA 95126

Prepared by:

Casey Divine
Jordyn Bauer
Bill Popenuck

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality
429 East Cotati Avenue
Cotati, CA 94931
(707) 794-0400

I&R Project#: 24-030

Introduction

The purpose of this report is to address the potential air quality, health risk, and greenhouse gas (GHG) impacts associated with the construction and operation of the proposed Buena Vista Redevelopment project located at 3980 El Camino Real in Palo Alto, California. Air quality and GHG impacts would be associated with the demolition of the existing uses at the site, construction of the new buildings and infrastructure, and operation of the project. Air pollutant and GHG emissions associated with construction and operation of the project were estimated using appropriate computer models. In addition, the potential project health risks and the impact of existing toxic air contaminant (TAC) sources affecting the nearby and proposed sensitive receptors were evaluated. The analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

Project Description

The 4.5-acre project site is currently developed with a mobile home park. A vacant motel building was previously located at the site but was removed in 2023. The project proposes to split the lot into two parcels, one occupying roughly two-thirds of the site, and the other parcel occupying one-third. The larger parcel (about 2.81 acres) would remain a mobile home park and the existing mobile homes would be replaced with 44 new mobile homes. The existing mobile homes on the smaller parcel (approximately 1.69 acres) would be removed and would be developed with a three-story, 61-unit apartment building with a surface parking lot with 79 parking spaces.

Construction of the mobile homes on the northeast parcel would begin in February 2025 and be completed in November 2025. Construction of the apartments on the southwest parcel would begin in May 2025 and be completed in August 2026. The proposed mobile homes could be occupied by new residents once its construction is finished and while construction continues to occur on the new apartments.

Setting

The project is located in Santa Clara County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards except for ground-level ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

Air Pollutants of Concern

High ozone concentrations in the air basin are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_X). These precursor pollutants react under certain meteorological conditions to form ozone concentrations. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ambient ozone concentrations. The highest ozone concentrations in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone concentrations aggravate

[1] Bay Area Air Quality Management District, *2022 CEQA Guidelines*, April 2023.

respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant in the air basin. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter concentrations aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic Air Contaminants

TACs are a broad class of compounds known to cause morbidity or mortality, often because they cause cancer. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure of TACs can result in adverse health effects, they are regulated at the regional, State, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects from diesel exhaust exposure a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs. Health risks from TACs are estimated using the Office of Environmental Health Hazard Assessment (OEHHA) risk assessment guidelines, which were published in February of 2015 and incorporated in BAAQMD's current CEQA guidance.[2]

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. For cancer risk assessments, infants and small children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest existing sensitive receptors to the project site are located in the single- and multi- family residences surrounding the site to the east, south, and west. There are additional sensitive receptors located further distances. There are

[2] OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. February.

also children located at the Keys School Middle Campus northeast of the site opposite El Camino Real. This project would introduce new sensitive receptors (i.e., residents) to the area. The proposed mobile homes could be occupied by new residents once its construction is finished and while construction continues to occur on the new apartments.

Regulatory Setting

Federal Regulations

The United States Environmental Protection Agency (EPA) sets nationwide emission standards for mobile sources, which include on-road (highway) motor vehicles such trucks, buses, and automobiles, and non-road (off-road) vehicles and equipment used in construction, agricultural, industrial, and mining activities (such as bulldozers and loaders). The EPA also sets nationwide fuel standards. California also has the ability to set motor vehicle emission standards and standards for fuel used in California, as long as they are the same or more stringent than the federal standards.

In the past decade the EPA has established a number of emission standards for on- and non-road heavy-duty diesel engines used in trucks and other equipment. This was done in part because diesel engines are a significant source of NO_X and particulate matter (PM_{10} and $PM_{2.5}$) and because the EPA has identified DPM as a probable carcinogen. Implementation of the heavy-duty diesel on-road vehicle standards and the non-road diesel engine standards are estimated to reduce particulate matter and NO_X emissions from diesel engines up to 95 percent in 2030 when the heavy-duty vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.[3]

In concert with the diesel engine emission standards, the EPA has also substantially reduced the amount of sulfur allowed in diesel fuels. The sulfur contained in diesel fuel is a significant contributor to the formation of particulate matter in diesel-fueled engine exhaust. The new standards reduced the amount of sulfur allowed by 97 percent for highway diesel fuel (from 500 parts per million by weight [ppmw] to 15 ppmw), and by 99 percent for off-highway diesel fuel (from about 3,000 ppmw to 15 ppmw). The low sulfur highway fuel (15 ppmw sulfur), also called ultra-low sulfur diesel (ULSD), is currently required for use by all vehicles in the U.S.

All of the above federal diesel engine and diesel fuel requirements have been adopted by California, in some cases with modifications making the requirements more stringent or the implementation dates sooner.

State Regulations

To address the issue of diesel emissions in the state, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.[4] In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and

[3] USEPA, 2000. *Regulatory Announcement, Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*. EPA420-F-00-057. December.
[4] California Air Resources Board, 2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. October.

stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, a significant component of the plan involves application of emission control strategies to existing diesel vehicles and equipment. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the federal on-road and non-road diesel engine emission standards for new engines, as well as adoption of regulations for low sulfur fuel in California.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. CARB regulations require on-road diesel trucks to be retrofitted with particulate matter controls or replaced to meet 2010 or later engine standards that have much lower DPM and $PM_{2.5}$ emissions. This regulation will substantially reduce these emissions between 2013 and 2023. While new trucks and buses will meet strict federal standards, this measure is intended to accelerate the rate at which the fleet either turns over so there are more cleaner vehicles on the road or is retrofitted to meet similar standards. With this regulation, older, more polluting trucks would be removed from the roads sooner.

CARB has also adopted and implemented regulations to reduce DPM and NO_X emissions from in-use (existing) and new off-road heavy-duty diesel vehicles (e.g., loaders, tractors, bulldozers, backhoes, off-highway trucks, etc.). The regulations apply to diesel-powered off-road vehicles with engines 25 horsepower (hp) or greater. The regulations are intended to reduce particulate matter and NO_X exhaust emissions by requiring owners to turn over their fleet (replace older equipment with newer equipment) or retrofit existing equipment in order to achieve specified fleet-averaged emission rates. Implementation of this regulation, in conjunction with stringent federal off-road equipment engine emission limits for new vehicles, will significantly reduce emissions of DPM and NO_X.

Bay Area Air Quality Management District (BAAQMD)

BAAQMD has jurisdiction over an approximately 5,600-square mile area, commonly referred to as the San Francisco Bay Area (Bay Area). The District's boundary encompasses the nine San Francisco Bay Area counties, including Alameda County, Contra Costa County, Marin County, San Francisco County, San Mateo County, Santa Clara County, Napa County, southwestern Solano County, and southern Sonoma County.

BAAQMD is the lead agency in developing plans to address attainment and maintenance of the National Ambient Air Quality Standards and California Ambient Air Quality Standards. The District also has permit authority over most types of stationary equipment utilized for the proposed project. The BAAQMD is responsible for permitting and inspection of stationary sources; enforcement of regulations, including setting fees, levying fines, and enforcement actions; and ensuring that public nuisances are minimized.

BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposures to outdoor TACs in the Bay Area.[5] The program

[5] See BAAQMD: https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program.

examines TAC emissions from point sources, area sources, and on-road and off-road mobile sources with an emphasis on diesel exhaust, which is a major contributor to airborne health risk in California. The CARE program is an on-going program that encourages community involvement and input. The technical analysis portion of the CARE program has been implemented in three phases that includes an assessment of the sources of TAC emissions, modeling and measurement programs to estimate concentrations of TAC, and an assessment of exposures and health risks. Throughout the program, information derived from the technical analyses has been used to develop emission reduction activities in areas with high TAC exposures and high density of sensitive populations. Risk reduction activities associated with the CARE program are focused on the most at-risk communities in the Bay Area. Seven areas have been identified by BAAQMD as impacted communities. They include Eastern San Francisco, Richmond/San Pablo, Western Alameda, San José, Vallejo, Concord, and Pittsburgh/Antioch. The project site is not located within any of the BAAQMD CARE areas.

Overburdened communities are areas located (i) within a census tract identified by the California Communities Environmental Health Screening Tool (CalEnviroScreen), Version 4.0 implemented by OEHHA, as having an overall score at or above the 70th percentile, or (ii) within 1,000 feet of any such census tract.[6] The BAAQMD has identified several overburdened areas within its boundaries. However, the project site is not within an overburdened area as the Project site is scored at the 10th percentile on CalEnviroScreen.[7]

BAAQMD CEQA Air Quality Guidelines

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. In 2023, the BAAQMD revised the *California Environmental Quality Act* (*CEQA) Air Quality Guidelines* that include significance thresholds to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The current BAAQMD guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They include assessment methodologies for criteria air pollutants, air toxics, odors, and GHG emissions as shown in Table 1.[8] Air quality impacts and health risks are considered potentially significant if they exceed these thresholds.

The BAAQMD recommends all projects include a “basic” set of best management practices (BMPs) to manage fugitive dust and consider impacts from dust (i.e., fugitive PM_{10} and $PM_{2.5}$) to be less than significant if BMPs are implemented (listed below). BAAQMD strongly encourages enhanced BMPs for construction sites near schools, residential areas, other sensitive land uses, or if air quality impacts were found to be significant.

[6] See BAAQMD: https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20210722_01_appendixd_mapsofoverburdenedcommunities-pdf.pdf?la=en.
[7] OEHAA, CalEnviroScreen 4.0 Maps https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40
[8] Bay Area Air Quality Management District, *2022 CEQA Guidelines*. April2023.

Table 1. BAAQMD CEQA Significance Thresholds

Criteria Air Pollutant	**Construction Thresholds**		**Operational Thresholds**	
	Average Daily Emissions (lbs./day)		**Average Daily Emissions (lbs./day)**	**Annual Average Emissions (tons/year)**
ROG	54		54	10
NO_X	54		54	10
PM_{10}	82 (Exhaust)		82	15
$PM_{2.5}$	54 (Exhaust)		54	10
CO	Not Applicable		9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices (BMPs)*		Not Applicable	
Health Risks and Hazards	**Single Sources/ Individual Project**		**Combined Sources (Cumulative from all sources within 1000-foot zone of influence)**	
Excess Cancer Risk	>10 in a million	OR Compliance with Qualified Community Risk Reduction Plan	>100 in a million	OR Compliance with Qualified Community Risk Reduction Plan
Hazard Index	>1.0		>10.0	
Incremental annual $PM_{2.5}$	>0.3 µg/m^3		>0.8 µg/m^3	
Greenhouse Gas Emissions				
Land Use Projects – (Must Include A or B)	A. Projects must include, at a minimum, the following project design elements: 1. Buildings a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development). b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines. 2. Transportation a. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA: i. Residential projects: 15 percent below the existing VMT per capita ii. Office projects: 15 percent below the existing VMT per employee iii. Retail projects: no net increase in existing VMT b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2. B. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).			
Note: ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less. GHG = greenhouse gases. * BAAQMD strongly recommends implementing all feasible fugitive dust management practices especially when construction projects are located near sensitive communities, including schools, residential areas, or other sensitive land uses.				

Source: Bay Area Air Quality Management District, 2022

City of Palo Alto Comprehensive Plan 2030

Adopted in November 2017, the Comprehensive Plan 2030 for the City of Palo Alto is the primary tool for guiding preservation and development in Palo Alto.[9] Air quality policies are identified in the Natural Environmental Element and address environmental risks such as air pollution and climate change. The following goals and policies are applicable to this project:

GOAL N-5 Clean, healthful air for Palo Alto and the San Francisco Bay Area.

Policy N-5.1 Support regional, State, and federal programs that improve air quality in the Bay Area because of its critical importance to a healthy Palo Alto.

Program N5.1.2 Implement BAAQMD recommended standards for the design of buildings near heavily traveled roads, in order to minimize exposure to auto-related emissions.

Program N5.1.3 Explore adopting new standards that target the reduction of very fine particulate matter ($PM_{2.5}$), which is associated with increased impacts on health.

Policy N-5.2 Support behavior changes to reduce emissions of particulates from automobiles.

Program N5.2.1 Promote understanding of the impacts of extended idling on air quality, for residents, auto dependent businesses and schools.

Program N5.2.2 Consider adopting and enforcing penalties for drivers that idle for longer than 3-5 minutes.

Policy N-5.3 Reduce emissions of particulates from, manufacturing, dry cleaning, construction activity, grading, wood burning, landscape maintenance, including leaf blowers and other sources.

Policy N-5.4 All potential sources of odor and/or toxic air contaminants shall be adequately buffered, or mechanically or otherwise mitigated to avoid odor and toxic impacts that violate relevant human health standards.

Policy N-5.5 Support the BAAQMD in its efforts to achieve compliance with existing air quality regulations by continuing to require development applicants to comply with BAAQMD construction emissions control measures and health risk assessment requirements.

Policy N-5.6 Mitigate potential sources of toxic air contaminants through siting or other means to reduce human health risks and meet the BAAQMD's applicable threshold of

[9] City of Palo Alto, 2017. *City of Palo Alto Comprehensive Plan 2030*. November. Web: https://www.cityofpaloalto.org/Departments/Planning-Development-Services/Housing-Policies-Projects/2030-Comprehensive-Plan

significance. When siting new sensitive receptors such as schools, day care facilities, parks or playgrounds, medical facilities and residences within 1,000 feet of stationary sources of toxic air contaminants or roadways used by more than 10,000 vehicles per day, require projects to consider potential health risks and incorporate adequate precautions such as high-efficiency air filtration into project design.

City of Palo Alto Comprehensive Plan Update Environmental Impact Report (EIR)

Published February 2016, the Comprehensive Plan Update EIR for the City of Palo Alto evaluated potential impacts of future development under the Comprehensive Plan. The Comprehensive Plan EIR identified mitigation measures that would make impacts less than significant. Chapter 4.2 in the document evaluated air quality impacts.[10] The following mitigation measures are applicable to this project:

Air Quality

Mitigation Measure AIR-2a: As part of the City's development approval process, the City shall require applicants for future development projects to comply with the current BAAQMD basic control measures for reducing construction emissions of PM_{10} (Table 8-2, Basic Construction Mitigation Measures Recommended for All Proposed Projects, of the BAAQMD CEQA Guidelines).

Mitigation Measure AIR-2b: Prior to issuance of construction permits, development project applicants that are subject to CEQA and have the potential to exceed the BAAQMD screening-criteria listed in the BAAQMD CEQA Guidelines shall prepare and submit to the City of Palo Alto a technical assessment evaluating potential project construction-related air quality impacts. The evaluation shall be prepared in conformance with BAAQMD methodology in assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the BAAQMD thresholds of significance, as identified in the BAAQMD CEQA Guidelines, the City of Palo Alto shall require that applicants for new development projects incorporate mitigation measures (Table 8-3, Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions Above the Threshold, of the BAAQMD CEQA Guidelines or applicable construction mitigation measures subsequently approved by BAAQMD) to reduce air pollutant emissions during construction activities to below these thresholds. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Planning and Community Environment Department.

Mitigation Measure AIR-2c: Prior to issuance of construction permits, development project applicants that are subject to CEQA and have the potential to exceed the BAAQMD screening-criteria listed in the BAAQMD CEQA Guidelines shall prepare and submit to the City of Palo Alto a technical assessment evaluating potential project operation phase-

[10] Placeworks, 2016. *Comprehensive Plan Update Environmental Impact Report*. February. Web: https://www.cityofpaloalto.org/civicax/filebank/documents/63453

related air quality impacts. The evaluation shall be prepared in conformance with BAAQMD methodology in assessing air quality impacts. If operational-related criteria air pollutants are determined to have the potential to exceed the BAAQMD thresholds of significance, as identified in BAAQMD's CEQA Guidelines, the City of Palo Alto Planning and Community Environment Department shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities.

AIR QUALITY IMPACTS AND CONDITIONS OF APPROVAL

Impact AIR-1: Conflict with or obstruct implementation of the applicable air quality plan?

BAAQMD, with assistance from the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC), implements specific plans to meet the applicable federal and State laws, regulations, and programs. The most recent and comprehensive plan is the *Bay Area 2017 Clean Air Plan*.[11] The primary goals of the Clean Air Plan are to attain air quality standards, reduce population exposure and protect public health, and reduce GHG emissions and protect the climate. The BAAQMD has also recently updated its CEQA guidelines to assist lead agencies in evaluating the significance of air quality impacts. In formulating compliance strategies, BAAQMD relies on planned land uses established by local general plans. Land use planning affects vehicle travel, which in turn affects region-wide emissions of air pollutants and GHGs.

The Project is consistent with the Comprehensive Plan Update EIR and, therefore, would not conflict with the latest Clean Air planning efforts. Additionally, 1) the Project would have construction and operational emissions below the BAAQMD thresholds (see Impact 2 below), 2) the project would be considered urban infill, and 3) the project would be located near transit with regional connections.

Impact AIR-2: 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?

The Bay Area is considered a non-attainment area for ground-level O_3 and $PM_{2.5}$ under both the NAAQS and the CAAQS. The area is also considered non-attainment for PM_{10} under the CAAQS, but not the NAAQS. The area has attained both State and Federal ambient air quality standards for CO. As part of an effort to attain and maintain ambient air quality standards for O_3, $PM_{2.5}$ and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. The O_3 precursor pollutant thresholds are for ROG and NOx, while PM_{10}, and $PM_{2.5}$ have specific thresholds. The thresholds apply to both construction period emissions and operational period emissions.

[11] Bay Area Air Quality Management District (BAAQMD), 2017. *Final 2017 Clean Air Plan.*

Construction Period Emissions

The California Emissions Estimator Model (CalEEMod) Version 2022 was used to estimate emissions from on-site construction activity, construction vehicle trips, and evaporative emissions. The project land use types and size were input to CalEEMod. The CalEEMod model output along with construction inputs are included in *Attachment 1*.

CalEEMod Inputs

Land Uses

The proposed project would be constructed in separate phases, with the mobile home construction starting before the apartments. Separate CalEEMod runs were conducted for each phase. The land uses for each phase were entered into CalEEMod as described in Table 2.

Table 2. Summary of Project Land Use Inputs

Project Land Uses	Size	Units	Square Feet	Acreage
Mobile Homes (2025)				
Mobile Home Park	44	Dwelling Unit	35,780*	2.81
Parking Lot	58	Parking Spaces	-	
Apartments (2025-2026)				
Mid-Rise Apartments	61	Dwelling Unit	63,399**	1.69
Parking Lot	79	Parking Spaces	-	
*Includes residential and office square footage. **Includes residential, office, and community space square footage.				

Construction Inputs

CalEEMod computes annual emissions for construction that are based on the project type, size, and acreage. The model provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The construction build-out scenario for both phases, including equipment quantities, average hours per day, total number of workdays, and schedule, was provided by the project applicant (included in *Attachment 1*). The construction schedule assumed that the earliest possible start date for the mobile homes would be February 2025 and for the apartments would be May 2025, with the total project being built out over a period of approximately 16 months, or 470 construction workdays. The earliest year of full operation for the total project was assumed to be 2027.

Construction Traffic Emissions

Construction would produce traffic in the form of worker trips and truck traffic. The traffic-related emissions are based on worker and vendor trip estimates produced by CalEEMod and haul trips that were computed based on the demolition material to be exported, soil imported and/or exported to the site, and the concrete and asphalt truck trips to and from the site. CalEEMod provides daily estimates of worker and vendor trips for each applicable phase. Daily haul trips for demolition and grading were developed by CalEEMod using the provided demolition and soil import/export volumes. The number of total concrete and asphalt round haul trips were provided for the project and converted to daily one-way trips, assuming two trips per delivery. These values are shown in the project construction equipment worksheet included in *Attachment 1.*

Summary of Computed Construction Period Emissions

In conformance with Mitigation Measure AIR-2b of the Comprehensive Plan Update EIR, average daily emissions were annualized for each year of construction by dividing the annual construction emissions by the number of active workdays during that year. Table 3 shows the annualized average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 3, predicted annualized project construction emissions would not exceed the BAAQMD significance thresholds during any year of construction.

Table 3. Construction Period Emissions

Year	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions Total (Tons)				
2025 (Mobile Homes & Apartments)	0.47	2.04	0.08	0.07
2026 (Apartments)	0.56	1.01	0.03	0.03
Average Daily Construction Emissions (pounds/day)				
2025 (261 construction workdays)	3.61	15.65	0.61	0.56
2026 (209 construction workdays)	5.40	9.66	0.31	0.29
BAAQMD Thresholds (pounds per day)	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	No	No	No	No

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site deposit mud on local streets, which is an additional source of airborne dust after it dries. The BAAQMD recommends all projects include a "basic" set of BMPs to manage fugitive dust and considers impacts from dust (i.e., fugitive PM_{10} and $PM_{2.5}$) to be less-than-significant if BMPs are implemented to reduce these emissions. Mitigation Measure AIR-2a of the Comprehensive Plan Update EIR would implement the BAAQMD basic BMPs to control dust during construction.

***Palo Alto Comprehensive Plan Update EIR Mitigation Measure AIR-2a:* BMPs for Construction Dust Suppression.**

During any construction period ground disturbance, the applicant shall ensure that the project contractor implement measures to control dust. Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less-than-significant level. The contractor shall implement the following BMPs required of all projects:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

6. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.

7. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.

8. Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.

9. Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

Effectiveness of Palo Alto Comprehensive Plan Update EIR Mitigation Measure AIR-2a

The measures above are consistent with BAAQMD-recommended basic BMPs for reducing fugitive dust contained in the BAAQMD CEQA Air Quality Guidelines. For this analysis, only the basic set of BMPs are required as the uncontrolled fugitive dust emissions from construction are below the BAAQMD single-source threshold. In compliance with the Comprehensive Plan Policy N-5.5, the City requires these basic best management practices to be implemented for all development projects.

Operational Period Emissions

ROG, NO_x, and Particulate Matter (PM) air pollutant emissions from the project would be generated primarily from autos driven by future residents. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are also typical ROG emission sources from these types of uses. The CalEEMod model was used to estimate emissions from operation of the proposed project assuming full build-out.

CalEEMod Inputs

Land Uses

All project land uses were combined and input to CalEEMod for the operational period modeling in the year 2027. Inputs are summarized in Table 4.

Table 4. Operational Land Uses Entered into CalEEMod

Project Land Uses	Size	Units	Square Feet	Acreage
Apartments Mid Rise	61	Dwelling Unit	63,399	1.69
Parking Lot	79	Parking Spaces	-	
Mobile Home Park	44	Dwelling Unit	35,780	2.81
Parking Lot	58	Parking Spaces	-	

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest year of full operation would be 2027 if construction begins in 2025. Emissions associated with build-out later than 2027 would be lower.

Traffic Information

CalEEMod allows the user to enter specific vehicle trip generation rates. However, project specific traffic information was not provided for this project at the time that modeling was developed. As a result, the CalEEMod default trip generation rates were utilized to calculate emissions from project traffic. The daily trip generation was calculated using ITE trip generation rates and the size of the project land uses. The project would produce approximately 332 daily weekday trips for the apartments and 220 daily weekday trips for the mobile homes. The default trip lengths and trip types specified by CalEEMod were used. The transportation analysis that was prepared following this modeling concluded that based on the ITE trip generation rates, the project would actually result in a net reduction in vehicle trips during operation as mobile homes generate more trips that apartments. Therefore, this traffic analysis is conservative.

Energy

CalEEMod defaults for energy use were used, which include the 2019 Title 24 Building Standards. GHG emissions modeling includes those indirect emissions from electricity consumption. The model has a default rate of 0 pounds of CO_2 per megawatt of electricity produced, which is based on City of Palo Alto Utilities Department 2021 emissions rate.

The Project plans do not show any natural gas infrastructure, and the applicant has confirmed the building will be all electric. Therefore, natural gas use for the project land uses was set to zero and reassigned to electricity use in CalEEMod.

Wood-Burning Devices

CalEEMod default inputs assume new residential construction would include wood-burning fireplaces and stoves. The project would not include wood-burning devices, as these devices are prohibited by BAAQMD Regulation 6, Rule 3.[12] As discussed above, natural gas infrastructure is prohibited in new residential buildings. Therefore, the number of woodstoves and fireplaces in CalEEMod were set to zero.

Other Inputs

Default model assumptions for emissions associated with solid waste generation were used. Wastewater treatment was changed to 100-percent aerobic conditions to represent the use of city services (i.e., the project would not send wastewater to septic tanks or facultative lagoons).

Summary of Computed Operational Period Emissions

In conformance with Mitigation Measure AIR-2c of the Comprehensive Plan Update EIR, annual operational emissions were predicted using CalEEMod. The daily emissions were calculated assuming 365 days of operation. Table 5 shows average daily emissions of ROG, NO_X, total PM_{10}, and total $PM_{2.5}$ during operation of the project. The operational period emissions would not exceed the BAAQMD significance thresholds.

Table 5. Operational Period Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2027 Project Operational Emissions (*tons/year*)	0.78	0.21	0.50	0.13
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Thresholds?	No	No	No	No
BAAQMD Thresholds (lbs./day)	*54 lbs.*	*54 lbs.*	*82 lbs.*	*54 lbs.*
Exceed Threshold?	No	No	No	No

Notes: [1] Assumes 365-day operation.

Summary of Operational and Construction Emissions

There would be a period where the mobile homes are operational and construction of the apartments would occur at the same time. The combination of operational and construction emissions is shown simply as the sum of mobile home emissions for 2026 annual operation and the apartment construction emissions for 2026. Calendar year 2026 is the only year where construction and operational emissions would overlap. Table 6 shows the annual and average daily emissions during this period. The overlap of operational and construction period emissions would not exceed the BAAQMD significance thresholds.

[12] Bay Area Air Quality Management District, https://www.baaqmd.gov/~/media/dotgov/files/rules/regulation-6-rule-3/documents/20191120_r0603_final-pdf.pdf?la=en

Table 6. Maximum Operational and Construction Period Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2026 Annual Apartment Construction Emissions	0.30	0.09	0.20	0.05
2026 Annual Mobile Home Operational Emissions	0.56	1.01	0.09	0.05
2026 Annual Project Emissions (*tons/year*)	0.86	1.10	0.29	0.10
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	*No*	*No*	*No*	*No*
2026 Average Daily Apartment Construction Emissions[1]	1.64	0.51	1.10	0.28
2026 Average Daily Mobile Home Operational Emissions[2]	5.40	9.66	0.88	0.48
2026 Average Daily Project Emissions (*pounds/day*)	7.04	10.16	1.98	0.76
BAAQMD Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	*No*	*No*	*No*	*No*
Notes: [1] Assumes 209 days of construction. [2] Assumes 365-day operation.				

Impact AIR-3: Expose sensitive receptors to substantial pollutant concentrations?

Project impacts related to increased health risk can occur by generating emissions of TACs and air pollutants. This project would introduce new sources of TACs during construction (i.e., on-site construction and truck hauling emissions) and operation (i.e., mobile sources). Project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. The project would not include stationary sources of air pollutants or TACs. The project would generate some traffic consisting of mostly light-duty gasoline-powered vehicles, which would produce TAC and air pollutant emissions.

Project impacts to existing sensitive receptors were addressed for temporary construction activities and long-term operational conditions. There are also several sources of existing TACs and localized air pollutants in the vicinity of the project. The impact of existing sources of TACs was assessed in terms of the cumulative risk which includes the project contribution, as well as the risk on the new sensitive receptors introduced by the project.

Health Risk Methodology

Health risk impacts were addressed by predicting increased cancer risk, the increase in annual $PM_{2.5}$ concentrations, and by computing the Hazard Index (HI) for non-cancer health risks. The risk impacts from the project are the risks from construction sources. These sources include on-site construction activity and construction truck hauling. To evaluate the increased cancer risks from the project, a 30-year exposure period was used, per BAAQMD guidance,[13] with the sensitive receptors being exposed to project construction emissions during this timeframe.

The project increased cancer risk is computed by summing the project construction cancer risk over the entire construction period. Unlike the increased maximum cancer risk, the annual $PM_{2.5}$ concentration and HI values are not additive but based on the annual maximum values for the entirety of the project. The project maximally exposed individual (MEI) is identified as the sensitive receptor that is most impacted by the project's construction and operation.

[13]BAAQMD, 2022. Appendix E of the *BAAQMD CEQA Guidelines*. April 2023.

The methodology for computing health risks impacts is contained in Appendix E of the BAAQMD CEQA Guidelines. TAC and $PM_{2.5}$ emissions are calculated, a dispersion model used to estimate ambient pollutant concentrations, and cancer risks and HI calculated using DPM concentrations.

Modeled Sensitive Receptors

Receptors for this assessment included locations where sensitive populations would be present for extended periods of time (i.e., chronic exposures). This includes the existing residences and middle school near the site as shown in Figure 1. Residential receptors are assumed to include all receptor groups (i.e., third trimester, infants, children, and adults) with almost continuous exposure to project emissions. Health risks were also computed for child receptors at the nearby middle school. While there are additional sensitive receptors within 1,000 feet of the project site, the receptors chosen are adequate to identify maximum impacts from the project.

Health Risk from Project Construction

The primary health risk impact issues associated with construction projects are cancer risks associated with diesel exhaust (i.e., DPM), which is a known TAC, and exposure to high ambient concentrations of dust (i.e., $PM_{2.5}$). Both pose a potential health and nuisance impact to nearby receptors. A health risk assessment of the project construction activities was conducted that evaluated potential health effects to nearby sensitive receptors from construction emissions of DPM and $PM_{2.5}$.[14] This assessment included dispersion modeling to predict the offsite concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be estimated.

Construction Emissions

The CalEEMod model provided total uncontrolled annual PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles. Total DPM emissions were estimated to be 0.04 tons (87 pounds) for the mobile home phase and 0.07 tons (133 pounds) for the apartments phase. Fugitive dust emissions ($PM_{2.5}$) were estimated to be 0.04 tons (73 pounds) for the mobile home phase and 0.02 tons (39 pounds) for the apartments phase. The on-road emissions are a result of haul truck travel during grading activities, worker travel, and vendor deliveries during construction. A trip length of half-a-mile was used to represent vehicle travel while at or near the construction site. It was assumed that the emissions from on-road vehicles traveling at or near the site would occur at the construction site.

<u>Dispersion Modeling</u>

The U.S. EPA AERMOD dispersion model was used to predict DPM and $PM_{2.5}$ concentrations at sensitive receptors (i.e., residences) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[15] Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive $PM_{2.5}$ dust emissions.

[14] DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.
[15] BAAQMD, 2023, *Appendix E of the 2022 BAAQMD CEQA Guidelines.* April.

Construction Sources

Combustion equipment DPM exhaust emissions were modeled for each mobile home and apartment construction areas as an array of point sources to reflect construction equipment and trucks operating at the site. These sources included nine-foot release heights (construction equipment exhaust stack height) that were placed at 20 feet (6 meter) intervals throughout the mobile home and apartment construction areas. This resulted in 306 individual point sources for the mobile homes site and 187 point sources for the apartments site being used to represent mobile equipment DPM exhaust emissions in the construction areas. The total DPM emissions for each area were divided into each of the point sources that were spread throughout the phase's construction sites. In addition, the following stack parameters were used: a vertical release, a stack diameter of 2.5 inches, an exhaust temperature of 918˚F, and an exit velocity of 309 feet per second. Point source plume rise is calculated by the AERMOD dispersion model. Emissions from vehicle travel on- and off-site were also distributed among the point sources throughout the site. The array of point sources used for the modeling are shown in Figure 1.

For modeling fugitive $PM_{2.5}$ emissions, an area source with a near-ground level release height of 7 feet (2 meters) was used. Fugitive dust emissions at construction sites come from a variety of sources, including truck and equipment travel, grading activities, truck loading (with loaders) and unloading (rear or bottom dumping), loaders and excavators moving and transferring soil and other materials, etc. All of these activities result in fugitive dust emissions at various heights at the point(s) of generation. Once generated, the dust plumes will tend to rise as they move downwind across the site and exit the site at a higher elevation than when it was generated. For all these reasons, a 7-foot release height was used as the average release height across the construction site. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources.

AERMOD Inputs and Meteorological Data

The modeling used a five-year data set (2013 - 2017) of hourly meteorological data from the Moffett Federal Airfield was used with the AERMOD model. Construction emissions were modeled as occurring Monday through Saturday between 8:00 a.m. to 5:00 p.m., per the project applicant's construction schedule. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2025-2026 period were calculated at nearby sensitive receptors using the model. Receptor heights of 5 feet (1.5 meters) and 15 feet (4.5 meters) was used to represent the breathing height on the first and second floors of nearby existing single- and multi-family residences.[16] A receptor height of 3 feet (1 meter) was used to represent the breathing heights of children at the nearby school.

<u>Summary of Construction Health Risk Impacts</u>

The maximum increased cancer risks were calculated using the modeled TAC concentrations combined with BAAQMD CEQA guidance for age sensitivity factors and exposure parameters.

[16] Bay Area Air Quality Management District, 2012, Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0. May. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en

Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. Third trimester, infant, child, and adult exposures were assumed to occur at all residences during the entire construction period, while child exposures were assumed at the school.

Non-cancer health hazards and maximum $PM_{2.5}$ concentrations were also calculated. The maximum modeled annual $PM_{2.5}$ concentration was calculated based on combined exhaust and fugitive concentrations. The maximum computed HI value was based on the ratio of the maximum DPM concentration modeled and the chronic inhalation DPM reference exposure level of 5 $\mu g/m^3$.

The modeled maximum annual DPM and $PM_{2.5}$ concentrations were identified at nearby sensitive receptors to find the MEI. Results of this assessment indicated that the construction MEIs were located at two different receptors. The cancer risk MEI was located on the second floor (15 feet above the ground) of a multi-family residence in the adjacent apartments south of the project site. The annual $PM_{2.5}$ concentration was located on the first floor (5 feet above the ground) of a single-family home east of the project site. The location of the MEIs and nearby sensitive receptors are shown in Figure 1. Table 7 summarizes the maximum cancer risks, $PM_{2.5}$ concentrations, and HI for project related construction activities at the MEI. *Attachment 2* to this report includes the emission calculations used for the construction modeling and the cancer risk calculations.

Additionally, modeling was conducted to predict the cancer risks, non-cancer health hazards, and maximum $PM_{2.5}$ concentrations associated with construction activities at the nearby middle school. The maximum increased cancer risks were adjusted using child exposure parameters. The uncontrolled cancer risk, $PM_{2.5}$ concentration, and HI at the nearby middle school do not exceed their respective BAAQMD single-source significance thresholds, as shown in Table 7.

Health Risks from Project Operation

The Project would not include stationary sources of TACs. Diesel powered vehicles are the primary concern with local traffic-generated TAC impacts. This project would generate approximately 552 daily weekday trips according to CalEEMod defaults, which is a conservative analysis as it does not assume a net of any existing vehicle trips. The project traffic would be dispersed on the roadway system with a majority of the trips being from light-duty vehicles (i.e., passenger automobiles). In addition, projects with the potential to cause or contribute to increased cancer risk from traffic include those that have high numbers of diesel-powered on road trucks or use off-road diesel equipment on site, such as a warehouse distribution center, a quarry, or a manufacturing facility, may potentially expose existing or future planned receptors to substantial cancer risk levels and/or health hazards. This is not a project of concern for mobile sources given the low trip quantity and type of trips generated by the project. Therefore, emissions from project traffic are considered negligible and not included within this analysis.

Summary of Project-Related Health Risks at the Off-Site Project MEIs

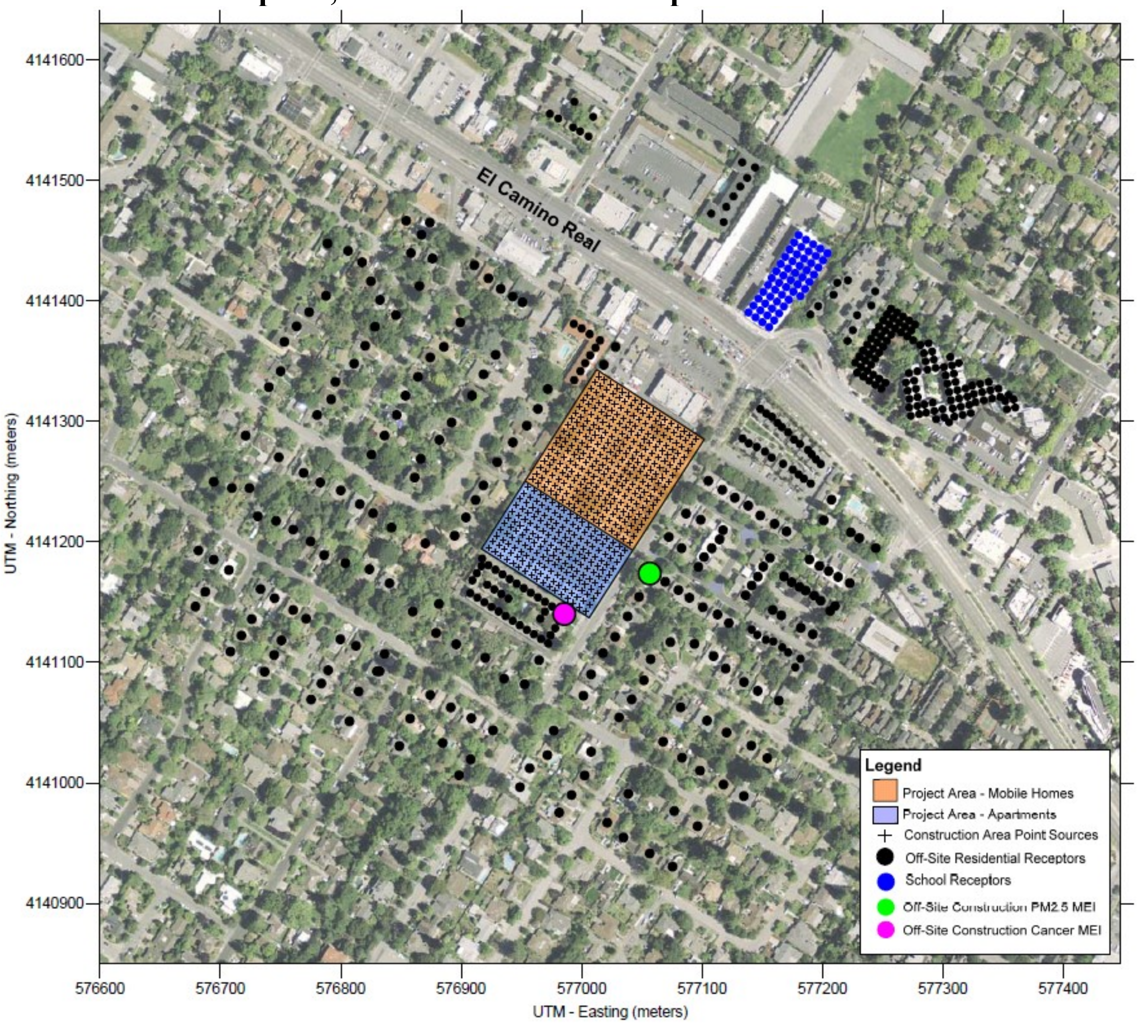
Project health risk impacts are shown in Table 7. The uncontrolled maximum cancer risks and annual $PM_{2.5}$ concentration from construction activities at the MEIs would exceed or be at the single-source significance thresholds. However, with the incorporation of *Condition of Approval (COA) AQ-1* and *EIR Mitigation Measure AIR-2a*, the controlled risks would no longer exceed the significance thresholds. The HI from construction activities would be below the single-source significance threshold.

Table 7. Construction Risk Impacts at the Off-Site MEIs

Source		Cancer Risk[1] (per million)	Annual $PM_{2.5}$[1] ($\mu g/m^3$)	Hazard Index
Project Impact				
Project Construction	Without COA	**49.56 (infant)**	**0.33**	0.03
	With COA[2]	6.28 (infant)	0.25	<0.01
	BAAQMD Single-Source Threshold	***10.0***	***0.3***	***1.0***
Exceed Threshold?	Without COA	***Yes***	***Yes***	*No*
	With COA[2]	*No*	*No*	*No*
Most Impacted School Receptor – Keys School Middle Campus				
Project Construction	Without COA	0.33 (child)	0.01	<0.01
	BAAQMD Single-Source Threshold	***10***	***0.3***	***1.0***
Exceed Threshold?	Without COA	*No*	*No*	*No*

Notes: [1] Maximum cancer risk and $PM_{2.5}$ concentration occur at different receptors.
[2] Construction equipment with Tier 4 Final engines and BMPs as COA.

Figure 1. Location of Project Construction Sites, Point Sources, Off-Site Sensitive Receptors, and Maximum TAC Impacts



Cumulative Health Risks of all TAC Sources at the Offsite Project MEI

Cumulative health risk assessments look at all substantial sources of TACs located within 1,000 feet of a project site (i.e., influence area) that can affect sensitive receptors. These sources include rail lines, highways, busy surface streets, and stationary sources identified by BAAQMD.

A review of the project area using BAAQMD's geographic information systems (GIS) screening tools indicated that one roadway (El Camino Real) and two stationary sources within the 1,000-foot influence area could have cumulative health risk impacts at the MEIs. Figure 2 shows the locations of the sources affecting the MEIs within the influence area. Health risk impacts from these sources upon the MEIs are reported in Table 8. Details of the cumulative screening and health risk calculations are included in *Attachment 3.*

Figure 2. Project Site and Nearby TAC and $PM_{2.5}$ Sources

Local Roadways – El Camino Real

A refined analysis of potential health impacts from vehicle traffic on El Camino Real was conducted since this roadway was identified by the screening tools to have potentially high TAC impact levels. The refined analysis involved prediction of emissions for the traffic volume and mix of vehicle types on the roadway near the project site and using an atmospheric dispersion model to predict exposure to TACs. The associated cancer risks are then computed based on the modeled exposures.

Emissions Modeling

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on El Camino Real using the Caltrans version of the CARB EMFAC2021 emissions model, known as CT-EMFAC2021. CT-EMFAC2021 provides emission factors for mobile source criteria pollutants and TACs, including DPM. Emission processes modeled include running exhaust for DPM, $PM_{2.5}$ and total organic compounds (TOG), running evaporative losses for TOG, and tire and brake wear and fugitive road dust for $PM_{2.5}$. All $PM_{2.5}$ emissions from all vehicles were used, rather than just the $PM_{2.5}$ fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce $PM_{2.5}$. Additionally, $PM_{2.5}$ emissions from vehicle tire and brake wear from re-entrained roadway dust were included in these emissions. DPM emissions are projected to decrease in the future and are reflected in the CT-EMFAC2021 emissions data. Inputs to the model include region (Santa Clara County), type of road (major/collector), traffic mix assigned by CT-EMFAC2021 for the county, truck percentages from Caltrans for El Camino Real (2.6 percent),[17] year of analysis (2025 construction start year), and season (annual).

To estimate TAC and $PM_{2.5}$ emissions over the 30-year exposure period used for calculating the increased cancer risks for sensitive receptors at the MEIs, the CT-EMFAC2021 model was used to develop vehicle emission factors for the year 2025 (construction start year). Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CT-EMFAC2021. Year 2025 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated since, as discussed above, overall vehicle emissions, and in particular diesel truck emissions, will decrease in the future.

The average daily traffic (ADT) of 39,655 vehicles per day for El Camino Real was based on Caltrans data and includes about 2.6 percent trucks, of which 0.6 percent are considered diesel heavy duty trucks and 2.0 percent are medium duty trucks.[18] Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[19] which were then applied to the ADT volumes to obtain estimated hourly traffic volumes and emissions for the

[17] Caltrans. 2022. *2022 Annual Average Daily Truck Traffic on the California State Highway System.* Web: https://dot.ca.gov/programs/traffic-operations/census.

[18] Caltrans. 2022. *2022 Traffic Volumes on California State Highways.* Web: https://dot.ca.gov/programs/traffic-operations/census.

[19] The Burden output from EMFAC2007, a previous version of CARB's EMFAC model, was used for this since the current web-based version of EMFAC2021 does not include Burden type output with hour-by-hour traffic volume information.

roadway. For all hours of the day an average speed of 30 mph on the roadway was assumed for all vehicles based on 5 mph below the posted speed limit signs.

Hourly emissions rates were developed for DPM, organic TACs, and $PM_{2.5}$ along the applicable segments of each roadway within 1,000 feet of the project site. AERMOD was used to estimate the TAC and $PM_{2.5}$ concentrations at the MEI locations. Maximum increased lifetime cancer risks and maximum annual $PM_{2.5}$ concentrations for the MEI receptors were then computed using modeled TAC and $PM_{2.5}$ concentrations and BAAQMD methods and exposure parameters.

Dispersion Modeling

Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the AERMOD dispersion model, which is recommended by the BAAQMD for this type of analysis.[20] TAC and $PM_{2.5}$ emissions from traffic on El Camino Real within about 1,000 feet of the project site were evaluated. Emissions from vehicle traffic travel on the roadway were modeled in AERMOD using a series of volume sources along a line (line volume sources), with line segments used for travel on the roadway in both opposing directions. The same meteorological data and off-site sensitive receptors used in the previous construction dispersion modeling were used in the roadway modeling. Other inputs to the model included road geometry, hourly traffic emissions, and receptor locations and heights. Annual TAC and $PM_{2.5}$ concentrations using 2025 emissions from traffic on the roadway were calculated using the model. Concentrations were calculated at the MEIs with receptor heights of 5 feet (1.5 meters) and 15 feet (4.5 meters) were used to represent the breathing heights on the first and second floors of the single- and multi-family residences.

Computed Cancer and Non-Cancer Health Impacts

The cancer risk, $PM_{2.5}$ concentration, and HI impacts from El Camino Real at the off-site MEIs are shown in Table 8. Figure 2 shows the roadway links modeled and receptor locations where concentrations were calculated. Details of the emission calculations, dispersion modeling, and cancer risk calculations for the receptors with the maximum cancer risk from traffic on the roadway are provided in *Attachment 3.*

<u>BAAQMD Permitted Stationary Sources</u>

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2021* GIS website,[21] which identifies the location of nearby stationary sources and their estimated risk and hazard impacts, including emissions and adjustments to account for OEHHA guidance. Two sources were identified using this tool, both gasoline dispensing facilities. A stationary source information request was submitted to BAAQMD in order to estimate health risk impacts from the GDFs.[22] The screening level risks and hazards provided by BAAQMD for the stationary sources were adjusted for distance CARB's *Gasoline*

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[20] BAAQMD. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May 2012
[21] BAAQMD, https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=845658c19eae4594b9f4b805fb9d89a3
[22] Email correspondence with BAAQMD CEQA, May 10, 2024.

Station Risk Screening Tool. Health risk impacts from the stationary sources upon the MEIs are reported in Table 8.

<u>Summary of Cumulative Health Risk Impact at Construction MEI</u>

Table 8 reports both the project and cumulative health risk impacts at the sensitive receptors most affected by construction (i.e., the MEIs). The project would have an exceedance with respect to health risk caused by project construction activities since the uncontrolled cancer risk and annual $PM_{2.5}$ concentration exceed or are at their respective BAAQMD single-source thresholds. The project does not exceed any BAAQMD cumulative-source thresholds.

However, the applicant proposes to utilize equipment with Tier 4 engines or equipment that meets U.S. EPA emission standards for Tier 3 engines and includes particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices for any equipment over 25 horsepower. With the implementation of this applicant proposed condition and *EIR Mitigation Measure Air 2a*, the construction risk and hazard levels would no longer exceed their respective significance thresholds. It is recommended that this commitment be reinforced as a condition of approval, as detailed below.

Table 8. Impacts from Combined Sources at Project MEIs

Source		Cancer Risk[1] (per million)	Annual $PM_{2.5}$[1] ($\mu g/m^3$)	Hazard Index
Project Impacts				
Project Impact	Without COA	**49.56**	**0.33**	0.03
	With COA	6.28	0.25	<0.01
	BAAQMD Single-Source Threshold	***10.0***	***0.3***	***1.0***
Exceed Threshold?	Without COA	***Yes***	***Yes***	*No*
	With COA	*No*	*No*	*No*
Cumulative Impacts				
El Camino Real, ADT 39,655		0.59	0.06	<0.01
Jim Davis Texaco (Facility ID #107164, Gas Dispensing Facility), MEIs at 600 feet.		0.23	-	0.09
Palo Alto Chevron (Facility ID #109991, Gas Dispensing Facility), MEIs at +1,000 feet.		0.26	-	0.03
Cumulative Total	Without COA	50.64	0.39	<0.16
	With COA	7.36	0.31	<0.14
	BAAQMD Cumulative Source Threshold	***100***	***0.8***	***10.0***
Exceed Threshold?	Without COA	*No*	*No*	*No*
	With COA	*No*	*No*	*No*

Notes: [1] Maximum cancer risk and $PM_{2.5}$ concentration occur at different receptors.

<u>Condition of Approval AQ-1:</u> **Use construction equipment that has low diesel particulate matter exhaust emissions.**

All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 Final emission standards for PM (PM_{10} and $PM_{2.5}$), if feasible. If Tier 4 Final equipment is not available for a particular piece of equipment, then use equipment that meets U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve a 80 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment.

Effectiveness of Condition of Approval AQ-1

CalEEMod was used to compute emissions associated with this condition assuming that all construction equipment met U.S. EPA Tier 4 Final engine standards and EIR Mitigation Measure AIR-2a for BMPs were applied. With these implemented, the project's construction cancer risk levels (assuming infant exposure) would be reduced by 87 percent to 6.28 per million and the annual $PM_{2.5}$ concentration would be reduced by 24 percent to 0.25 μ/m^3. As a result, the project's construction risks and hazards would be reduced below the BAAQMD single-source thresholds.

On-Site Health Risk Assessment for TAC Sources - New Project Residences

The City's Comprehensive Plan Policy N-5.6 requires new residential development projects and projects categorized as sensitive receptors to incorporate effective mitigation into project designs to avoid significant risks to health and safety. Therefore, a health risk assessment was completed to assess the impact that the phased construction emissions from the proposed project and nearby existing TAC sources would have on the new proposed sensitive receptors (residents) that the project would introduce. The same TAC sources identified above were used in this assessment.[23] BAAQMD's recommended thresholds for health risks and hazards, shown in Table 1, are used to evaluate on-site exposure. Figure 3 shows the on-site sensitive receptors in relation to the nearby TAC sources. Health risk results are listed in Table 9. *Attachment 3* includes the dispersion modeling and risk calculations for TAC source impacts upon the proposed on-site sensitive receptors.

<u>Project Phased Construction</u>

Project sensitive receptors could occupy the new mobile homes once that portion of construction is completed while apartments are still being constructed. Therefore, it was assumed that the mobile homes would have sensitive receptors during the second year of apartment construction. The construction analysis for the project mobile home residents was conducted in the same manner as described above for the off-site cancer risk and $PM_{2.5}$ MEIs. Receptors were placed at each proposed mobile home and construction impacts were modeled at receptor heights of 5 feet (1.5 meters). Maximum increased cancer risks were calculated for the residents in the mobile homes using the maximum modeled TAC concentrations. A 30-year exposure period was used in calculating cancer risks assuming the residents would include third trimester pregnancy and infants/children and were assumed to be in the new mobile homes for 24 hours per day for 350 days per year. Maximum apartment construction cancer risk and annual $PM_{2.5}$ concentration impacts occurred on the first floor (5 feet above ground) at two different mobile home locations

[23] We note that to the extent this analysis considers *existing* air quality issues in relation to the impact on *future residents* of the Project, it does so for informational purposes only pursuant to the judicial decisions in *CBIA v. BAAQMD* (2015) 62 Cal.4th 369, 386 and *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473, which confirm that the impacts of the environment on a project are excluded from CEQA unless the project itself "exacerbates" such impacts.

adjacent to the apartment area, as shown in Figure 3. The project construction health risk impacts at the mobile home site are shown in Table 9. Details of the on-site construction emission calculations, dispersion modeling, and cancer risk calculations are contained in *Attachment 2.*

Local Roadways – El Camino Real

The roadway impacts on new project residents was conducted in the same manner as described above for the off-site MEIs. The project set of receptors were placed throughout the mobile home and apartment area and were spaced every 20 feet (6 meters). Roadway impacts were modeled at receptor heights of 5 feet (1.5 meters) and 15 feet (4.5 meters) representing sensitive receptors on the first and second floors of the proposed mobile homes and apartment building. Receptors above the second floor would have levels similar or lower than second floor exposures. The portions of El Camino Real included in the modeling are shown in Figure 3 along with the project site and receptor locations where impacts were modeled.

Maximum increased cancer risks were calculated for the residents at the project site using the maximum modeled TAC concentrations. A 30-year exposure period was used in calculating cancer risks assuming the residents would include infants and adults were assumed to be in the new apartments for 24 hours per day for 350 days per year. The maximum impacts from El Camino Real occurred at a mobile home receptor on the first floor (5 feet above the ground) in the northeast corner of the mobile home area. Cancer risks associated with the roadways are greatest closest to the roadway and decrease with distance from the road. The roadway impacts at the project site are shown in Table 9. Details of the emission calculations, dispersion modeling, and cancer risk calculations are contained in *Attachment 3.*

Stationary Sources

The stationary source screening analysis for the new project sensitive receptors was conducted in the same manner as described above for evaluating the off-site MEIs. Table 9 shows the health risk screening assessment results from the stationary sources at the project site.

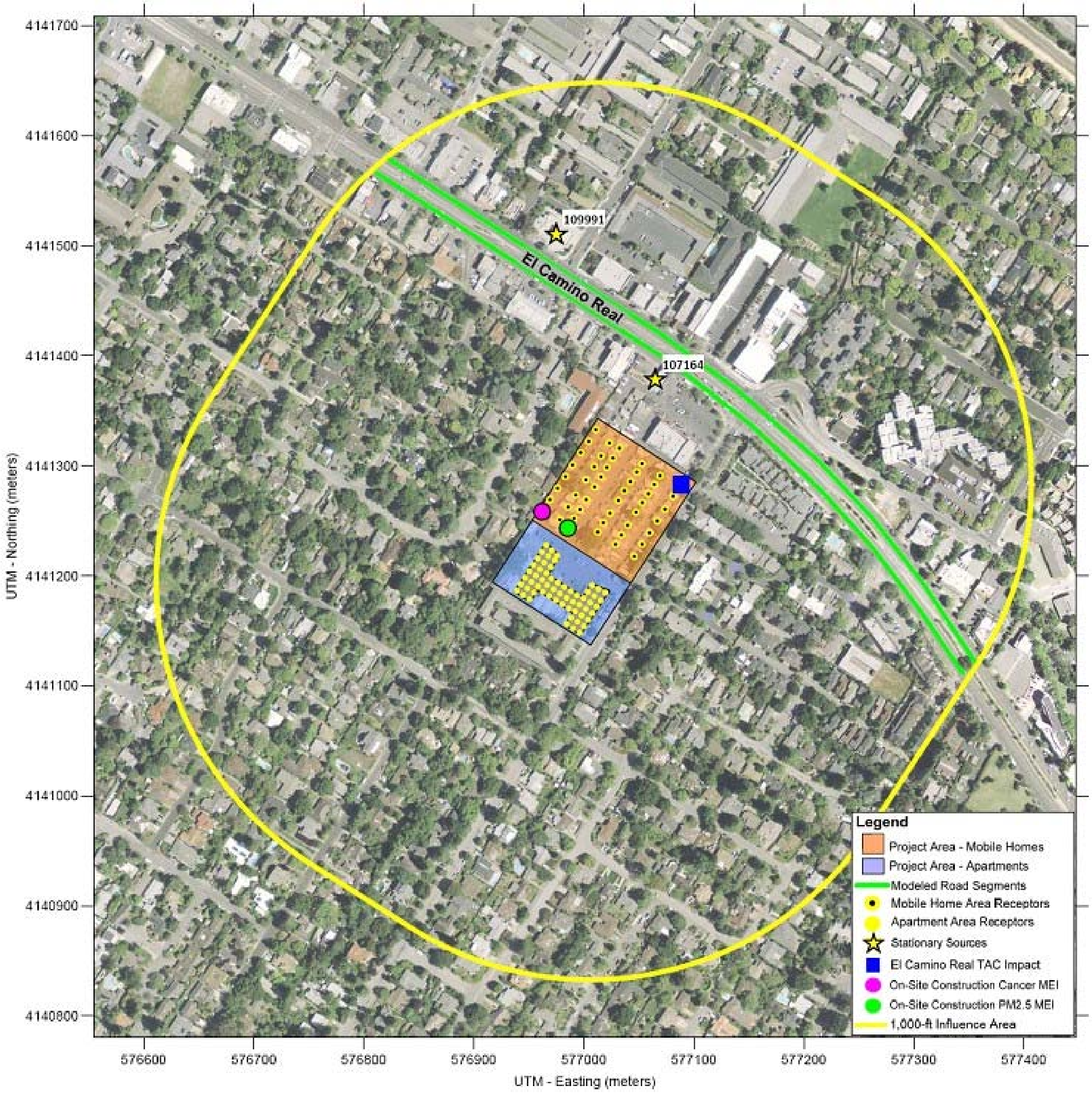
Summary of Cumulative Health Risks at the Project Site

Health risk impacts from the project and existing TAC sources upon the project site are reported in Table 9. The risks from the singular TAC sources are compared against the BAAQMD single-source threshold. The risks from all the sources are then combined and compared against the BAAQMD cumulative-source threshold. As shown, the project and existing sources of TAC emissions do not exceed the BAAQMD single-source or cumulative-source thresholds for cancer risk, annual $PM_{2.5}$ concentration, or HI.

Table 9. Impacts from Nearby Sources to Project Site Receptors

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Apartment Construction (uncontrolled)	2.39	0.03	<0.01
El Camino Real, ADT 39,655	2.37	0.15	<0.01
Jim Davis Texaco (Facility ID #107164, Gas Dispensing Facility), Project Site at 150 feet.	2.48	-	0.90
Palo Alto Chevron (Facility ID #109991, Gas Dispensing Facility), Project Site at 500 feet.	1.03	-	0.14
BAAQMD Single-Source Threshold	***10.0***	***0.3***	***1.0***
Exceed Threshold?	*No*	*No*	*No*
Cumulative Total	8.27	0.15	<1.06
BAAQMD Cumulative Source Threshold	***100***	***0.8***	***10.0***
Exceed Threshold?	*No*	*No*	*No*

Figure 3. Project Sites, Nearby Cumulative Sources, and On-Site MEIs



Greenhouse Gas Emissions

Setting

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO_2) and water vapor but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO_2, CH_4, and N_2O are byproducts of fossil fuel combustion.
- N_2O is associated with agricultural operations such as fertilization of crops.
- CH_4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO_2 being assigned a value of 1 and sulfur hexafluoride being several orders of magnitude stronger. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of CO_2 equivalents (CO_2e).

An expanding body of scientific research supports the theory that global climate change is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

Federal and Statewide GHG Emissions

The U.S. EPA reported that in 2022, total gross nationwide GHG emissions were 5,215.6 million metric tons (MMT) carbon dioxide equivalent (CO_2e).[24] These emissions were lower than peak levels of 7,416 MMT that were emitted in 2007. CARB updates the statewide GHG emission

[24] United States Environmental Protection Agency, 2022. *Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2020*. February. Web: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks

inventory on an annual basis where the latest inventory includes 2000 through 2020 emissions.[25] In 2020, GHG emissions from statewide emitting activities were 369.2 MMT CO_2e. The 2020 emissions have decreased by 25 percent since peak levels in 2004 and are 35.3 MMT CO_2e lower than 2019 emissions level and almost 62 MMT CO_2e below the State's 2020 GHG limit of 431 MMT CO_2e. Per capita GHG emissions in California have dropped from a 2001 peak of 13.8 MT CO_2e per person to 9.3 MT CO_2e per person in 2020.

Recent Regulatory Actions for GHG Emissions

Executive Order S-3-05 – California GHG Reduction Targets

Executive Order (EO) S-3-05 was signed by Governor Arnold Schwarzenegger in 2005 to set GHG emission reduction targets for California. The three targets established by this EO are as follows: (1) reduce California's GHG emissions to 2000 levels by 2010, (2) reduce California's GHG emissions to 1990 levels by 2020, and (3) reduce California's GHG emissions by 80 percent below 1990 levels by 2050.

Assembly Bill 32 – California Global Warming Solutions Act (2006)

Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, codified the State's GHG emissions target by directing CARB to reduce the State's global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, the CARB, California Energy Commission (CEC), California Public Utilities Commission (CPUC), and Building Standards Commission have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05, which has a target of reducing GHG emissions 85 percent below 1990 levels.

The first Scoping Plan for AB 32 was adopted by CARB in December 2008. Its most recent update was completed in December of 2022[26]. It contains the State's main strategies to achieve carbon neutrality by 2045. This plan extends and expands upon the earlier versions with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. It also takes the step of adding carbon neutrality as a science-based guide and touchstone for California's climate work. Measures to achieve carbon neutrality include rapidly moving to zero emission vehicles (ZEV), removing natural gas as an option for space conditioning, increasing the number of solar arrays and wind turbines, and scaling up renewable hydrogen for hard-to-electrify end uses.

Senate Bill 375 – California's Regional Transportation and Land Use Planning Efforts (2008)

California enacted legislation (SB 375) to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 provides incentives for local governments and applicants to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities.

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[25] CARB. 2022. *California Greenhouse Gas Emission for 2000 to 2020*. Web: https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf

[26] CARB. 2022. Final 2022 Scoping Plan Update and Appendices. Web: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents

The legislation also allows applicants to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of more alternative transportation options that would reduce vehicle trips and miles traveled, along with traffic congestion, would be encouraged. SB 375 enhances CARB's ability to reach the AB 32 goals by directing the agency in developing regional GHG emission reduction targets to be achieved from the transportation sector for 2020 and 2035. CARB works with the metropolitan planning organizations (e.g., ABAG and MTC) to align their regional transportation, housing, and land use plans to reduce VMT and demonstrate the region's ability to attain its GHG reduction targets. A similar process is used to reduce transportation emissions of ozone precursor pollutants in the Bay Area.

Senate Bill 350 - Renewable Portfolio Standards

In September 2015, the California Legislature passed SB 350, which increases the State's Renewables Portfolio Standard (RPS) for content of electrical generation from the 33 percent target for 2020 to a 50 percent renewable target by 2030.

Executive Order B-30-15 & Senate Bill 32 GHG Reduction Targets – 2030 GHG Reduction Target

In April 2015, Governor Brown signed EO B-30-15, which extended the goals of AB 32, setting a GHG emissions target at 40 percent of 1990 levels by 2030. On September 8, 2016, Governor Brown signed Senate Bill (SB) 32, which legislatively established the GHG reduction target of 40 percent of 1990 levels by 2030. In November 2017, CARB issued *California's 2017 Climate Change Scoping Plan*.[27] While the State is on track to exceed the AB 32 scoping plan 2020 targets, this plan is an update to reflect the enacted SB 32 reduction target.

SB 32 was passed in 2016, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB has drafted a 2022 Scoping Plan Update to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The 2022 draft plan:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 or earlier.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as a driving principle.
- Incorporates the contribution of natural and working lands to the State's GHG emissions, as well as its role in achieving carbon neutrality.
- Relies on the most up to date science, including the need to deploy all viable tools, including carbon capture and sequestration as well a direct air capture.

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[27] California Air Resource Board, 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Targets.* November. Web: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017.pdf

- Evaluates multiple options for achieving our GHG and carbon neutrality targets, as well as the public health benefits and economic impacts associated with each.

The Scoping Plan was updated in 2022 and lays out how the state can get to carbon neutrality by 2045 or earlier. It is the first Scoping Plan that adds carbon neutrality as a science-based guide and touchstone beyond statutorily established emission reduction targets.[28]

The mid-term 2030 target is considered critical by CARB on the path to obtaining an even deeper GHG emissions target of 80 percent below 1990 levels by 2050, as directed in Executive Order S-3-05. The 2022 Scoping Plan outlines the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and to not only obtain the statewide goals, but cost-effectively achieve carbon-neutrality by 2045 or earlier. In the 2022 Scoping Plan, CARB recommends:

- VMT per capita reduced 12% below 2019 levels by 2030 and 22% below 2019 levels by 2045.
- 100% of Light-duty vehicle sales are zero emissions vehicles (ZEV) by 2035.
- 100% of medium duty/heavy duty vehicle sales are ZEV by 2040.
- 100% of passenger and other locomotive sales are ZEV by 2030.
- 100% of line haul locomotive sales are ZEV by 2035.
- All electric appliances in new residential and commercial building beginning 2026 (residential) and 2029 (commercial).
- 80% of residential appliance sales are electric by 2030 and 100% of residential appliance sales are electric by 2035.
- 80% of commercial appliance sales are electric by 2030 and 100% of commercial appliance sales are electric by 2045.

SB 743 Transportation Impacts

Senate Bill 743 required lead agencies to abandon the old "level of service" metric for evaluating a project's transportation impacts, which was based solely on the amount of delay experienced by motor vehicles. In response, the Governor's Office of Planning and Research (OPR) developed a VMT metric that considered other factors such as reducing GHG emissions and developing multimodal transportation[29]. A VMT-per-capita metric was adopted into the CEQA Guidelines Section 15064.3 in November 2017. Given current baseline per-capita VMT levels computed by CARB in the 2030 Scoping Plan of 22.24 miles per day for light-duty vehicles and 24.61 miles per day for all vehicle types, the reductions needed to achieve the 2050 climate goal are 16.8 percent for light-duty vehicles and 14.3 percent for all vehicle types combined. Based on this analysis (as well as other factors), OPR recommended using a 15-percent reduction in per capita VMT as an appropriate threshold of significance for evaluating transportation impacts.

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[28] https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents

[29] Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December.

Executive Order B-55-18 – Carbon Neutrality

In 2018, a new statewide goal was established to achieve carbon neutrality as soon as possible, but no later than 2045, and to maintain net negative emissions thereafter. CARB and other relevant state agencies are tasked with establishing sequestration targets and create policies/programs that would meet this goal.

Senate Bill 100 – Current Renewable Portfolio Standards

In September 2018, SB 100 was signed by Governor Brown to revise California's RPS program goals, furthering California's focus on using renewable energy and carbon-free power sources for its energy needs. The bill would require all California utilities to supply a specific percentage of their retail sales from renewable resources by certain target years. By December 31, 2024, 44 percent of the retails sales would need to be from renewable energy sources, by December 31, 2026 the target would be 40 percent, by December 31, 2027 the target would be 52 percent, and by December 31, 2030 the target would be 60 percent. By December 31, 2045, all California utilities would be required to supply retail electricity that is 100 percent carbon-free and sourced from eligible renewable energy resource to all California end-use customers.

California Building Standards Code – Title 24 Part 11 & Part 6

The California Green Building Standards Code (CALGreen Code) is part of the California Building Standards Code under Title 24, Part 11.[30] The CALGreen Code encourages sustainable construction standards that involve planning/design, energy efficiency, water efficiency resource efficiency, and environmental quality. These green building standard codes are mandatory statewide and are applicable to residential and non-residential developments. The most recent CALGreen Code (2022 California Building Standard Code) was effective as of January 1, 2023.

The California Building Energy Efficiency Standards (California Energy Code) is under Title 24, Part 6 and is overseen by the CEC. This code includes design requirements to conserve energy in new residential and non-residential developments, while being cost effective for homeowners. This Energy Code is enforced and verified by cities during the planning and building permit process. The current energy efficiency standards (2022 Energy Code) replaced the 2019 Energy Code as of January 1,2023. Under the 2019 standards, single-family homes are predicted to be 53 percent more efficient than homes built under the 2016 standard due more stringent energy-efficiency standards and mandatory installation of solar photovoltaic systems. For nonresidential developments, it is predicted that these buildings will use 30 percent less energy due to lightening upgrades.[31]

Requirements for electric vehicle (EV) charging infrastructure are set forth in Title 24 of the California Code of Regulations. The CALGreen standards consist of a set of mandatory standards required for new development, as well as two more voluntary standards known as Tier 1 and Tier 2. The CalGreen 2022 standards require deployment of additional EV chargers in various building

[30] See: https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen#:~:text=CALGreen%20is%20the%20first%2Din,to%201990%20levels%20by%202020.
[31] See: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf

types, including multifamily residential and nonresidential land uses. They include requirements for both EV capable parking spaces and the installation of Level 2 EV supply equipment for multifamily residential and nonresidential buildings. The 2022 CALGreen standards include requirements for both EV readiness and installation of EV chargers, and contain both mandatory requirements and more aggressive voluntary Tier 1 and Tier 2 provisions. Providing EV charging infrastructure that meets current CALGreen requirements will not be sufficient to power the anticipated more extensive level of EV penetration in the future that is needed to meet SB 30 climate goals.

CEC studies have identified the most aggressive electrification scenario as putting the building sector on track to reach the carbon neutrality goal by 2045.[32] Installing new natural gas infrastructure in new buildings will interfere with this goal. To meet the State's goal, communities have been adopting "Reach" codes that prohibit natural gas connections in new and remodeled buildings.

Advanced Clean Cars

The Advanced Clean Cars Program, originally adopted by CARB in 2012, was designed to bring together CARB's traditional passenger vehicle requirements to meet federal air quality standards and also support California's AB 32 goals to develop and implement programs to reduce GHG emissions back down to 1990 levels by 2020, a goal achieved in 2016 as a result of numerous emissions reduction programs.

Advanced Clean Cars II (ACC II) is phase two of the original rule. ACC II establishes a year-by-year process, starting in 2026, so all new cars and light trucks sold in California will be zero-emission vehicles by 2035, including plug-in hybrid electric vehicles. The regulation codifies the light-duty vehicle goals set out in Governor Newsom's Executive Order N-79-20. Currently, 16 percent of new light-duty vehicles sold in California are zero emissions or plug-in hybrids. By 2030, 68 percent of new vehicles sold in California would be zero emissions and 100 percent by 2035.

Palo Alto Sustainability and Climate Action Plan

The City of Palo Alto adopted a Sustainability and Climate Action Plan Framework (S/CAP)[33] in 2016 that included goals and strategies to reduce GHG emissions 80 percent below 1990 levels by 2030 (the "80 x 30" goal). In 2017 the City accepted a 2018-2022 Sustainability Implementation Plan,[34] which focuses on key concern and action areas to help achieve the S/CAP goal. In 2022 the City adopted an ambitious carbon neutral by 2030 goal. In June 2023, the City approved a new

[32] California Energy Commission. 2021. F*inal Commission Report: California Building Decarbonization Assessment. Publication Number CEC-400-2021-006-CMF*.August
[33] City of Palo Alto. *Sustainability and Climate Action Plan*. November 2016. Web: https://www.cityofpaloalto.org/files/assets/public/sustainability/policies-and-plans/scap_framework_november2016.pdf
[34] City of Palo Alto. *Sustainability Implementation Plan (SIP) Key Actions*. 2017. Web: https://www.cityofpaloalto.org/files/assets/public/sustainability/policies-and-plans/2018-2020-sustainability-implementation-plan-with-council-amendments.pdf

Sustainability and Climate Action Plan that includes a comprehensive plan for achieving the 80x30 goal in addition to outlining goals and strategies to achieving carbon neutral by 2030.

BAAQMD GHG Significance Thresholds

On April 20, 2022, BAAQMD adopted new thresholds of significance for operational GHG emissions from land use projects for projects beginning the CEQA process. The following framework is how BAAQMD will determine GHG significance moving forward.[35] Note BAAQMD intends that the thresholds apply to projects that begin the CEQA process after adoption of the thresholds, unless otherwise directed by the lead agency. The new thresholds of significance are:

A. Projects must include, at a minimum, the following project design elements:
   a. Buildings
      i. The project will not include natural gas appliances or natural gas plumbing (in both residential and non-residential development).
      ii. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
   b. Transportation
      i. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
         1. Residential Projects: 15 percent below the existing VMT per capita
         2. Office Projects: 15 percent below the existing VMT per employee
         3. Retail Projects: no net increase in existing VMT
      ii. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

B. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Any new land use project would have to include either section A or B from the above list, not both, to be considered in compliance with BAAQMD's GHG thresholds of significance.

Impact GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and

[35] Justification Report: BAAQMD CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Project and Plans. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en

worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal. Emissions for the proposed project are discussed below.

CalEEMod Modeling

CalEEMod was used to predict GHG emissions from operation of the site assuming full build-out of the project, as well as the existing use of the site. The project land use types and size and other project-specific information were input to the model, as described above within the construction and operational period emissions. CalEEMod output is included in *Attachment 1*.

Construction GHG Emissions

GHG emissions associated with construction were computed at 708 MT of CO_2e for the total construction period. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction related GHG emissions, though the California Office of Planning and Research (OPR) recommends quantifying emissions and disclosing that GHG emissions would occur during construction, even in cases where BAAQMD does not. BAAQMD also encourages the incorporation of BMPs to reduce GHG emissions during construction where feasible and applicable.

Operational GHG Emissions

The CalEEMod model was used to estimate daily emissions associated with operation of the fully-developed site under the proposed project and existing use. As shown in Table 10, annual GHG emissions resulting from operation of the proposed project are predicted to be 495 MT of CO_2e in 2027.

Table 10. Annual Project GHG Emissions (CO_2e) in Metric Tons

Source Category	Proposed Project in 2027
Mobile	467
Area	1
Energy Consumption	0
Water Usage	2
Solid Waste Generation	24
Refrigerants	<11
Total (MT CO_{2e}/year)	495

For this impact to be considered less than significant, it must be consistent with a local GHG reduction strategy (Threshold B) or meet the minimum project design elements recommended by BAAQMD (Threshold A). Though either option could apply to this project, Threshold A is being applied to the analysis of this project. To meet the BAAQMD's GHG Threshold A, the project would be required to demonstrate the following:

1. Avoid construction of new natural gas connections for the residential building,
    - Project Conforms – The project is confirmed to be all electric.
2. Avoid wasteful or inefficient use of electricity,
    - Project Conforms – the project would meet CALGreen Building Standards Code requirements that are considered to be energy efficient.
3. Include electric vehicle charging infrastructure that meets current Building Code CALGreen Tier 2 compliance, and
    - Project Conforms – the project would include approximately 43 spaces with electric vehicle supply equipment (EVSE) and 27 EV ready spaces, meeting the compliance measure.
4. Reduce VMT per capita by 15 percent over regional average.
    - Project Conforms – the proposed project will include less units than what is currently developed at the project site. According to the project's traffic consultants, due to the reduction in the number of units, it is expected to cause less traffic, and therefore, a less-than-significant VMT impact.

The project is anticipated to comply with all four requirements of Threshold A.

Impact GHG-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The City of Palo Alto enforces its building codes, which aim to reduce GHG emissions. Therefore, if individual projects conform to City building Codes, they will not conflict with local plans, policies, or regulations applicable to GHG emissions. The project is anticipated to be constructed in conformance with at minimum the 2022 CalGreen and the Title 24 Building Codes, which requires high-efficiency water fixtures, water-efficient irrigation systems, and compliance with current energy efficiency standards. Compliance with these standards ensures compliance with State and federal plans, policies, and regulations applicable to GHG emissions.

Supporting Documentation

Attachment 1 includes the CalEEMod outputs for project construction and operational criteria air pollutants. Also included are any modeling assumptions.

Attachment 2 includes the project health risk assessment. This includes the summary of the dispersion modeling and the cancer risk calculations for construction. The AERMOD dispersion modeling files for this assessment, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 3 includes the cumulative health risk screening, modeling results, and health risk calculations from sources affecting the project MEIs and new project sensitive receptors.

Attachment 1: CalEEMod Input Assumptions and Outputs

Total Project Construction Criteria Air Pollutants							
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	**CO2e**	
Year	Tons					MT	
Construction Equipment							
2025	0.47	2.04	0.08	0.07	0.06	469.25	
2026	0.56	1.01	0.03	0.03	0.02	239.21	
	Total Construction Emissions						
Tons	1.04	3.05	0.11	0.10		708.47	
Pounds/Workdays	*Average Daily Emissions*					Workdays	
2025	3.61	15.65	0.61	0.56			**261**
2026	5.40	9.66	0.31	0.29			**209**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**			
	Total Construction Emissions						
Pounds	2071.36	6102.35	224.40	205.47		0.00	
Average	4.41	12.98	0.48	0.44		0.00	470.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**			

Operational Criteria Air Pollutants				
Unmitigated	ROG	NOX	Total PM10	Total PM2.5
Year	Tons			
Total	0.78	0.21	0.50	0.13
	Net Annual Operational Emissions			
Tons/year	0.78	0.21	0.50	0.13
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**
	Average Daily Emissions			
Pounds Per Day	4.26	1.18	2.73	0.70
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**

Category	**CO2e**			
	Project			
Mobile	466.57			
Area	1.30			
Energy	0.00			
Water	2.34			
Waste	24.24			
Refrig.	0.12			
TOTAL	494.58	0.00	0.00	0.00
Net GHG Emissions		494.58		0.00

Apartments Number of Days Per Year				
2025	5/1/2025	12/31/25	245	211
2026	1/1/26	8/31/2026	243	209
			488	**419** ***Total Workdays***

Phase	**Start Date**	**End Date**	**Days/Week**	**Workdays**
Demolition	5/1/2025	6/15/2025	5	32
Site Preparation	7/1/2026	7/31/2026	5	23
Landscaping/Irrigation/	8/1/2026	8/31/2026	5	21
Grading	6/15/2025	6/30/2025	5	11
Building Construction	10/1/2025	6/30/2026	5	195
Paving	7/25/2026	7/31/2026	5	5
Architectural Coating	3/1/2026	7/30/2026	5	109
Trenching (Utilities & S	7/1/2025	9/30/2025	5	66

Number of Days Per Year				
2025	2/1/2025	11/30/2025	303	261
			303	**261**

Phase	**Start Date**	**End Date**	**Days/Week**	**Workdays**
Demolition	2/1/2025	3/31/2025	5	41
Site Preparation	7/1/2025	8/30/2025	5	44
Landscaping/Irrigation/	10/9/2025	11/30/2025	5	37
Grading	4/1/2025	4/30/2025	5	22
Building Construction	9/1/2025	9/30/2025	5	22
Paving	10/1/2025	10/8/2025	5	6
Architectural Coating	9/1/2025	9/30/2025	5	22
Trenching (Utilities)	5/1/2025	6/30/2025	5	43

Mobile Homes Total Construction Criteria Air Pollutants							
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	M2.5 Fugitiv	**CO2e**	
Year	Tons					MT	
Construction Equipment							
2025	0.37	1.14	0.04	0.04	0.04	262.85	
2026							
	Total Construction Emissions						
Tons	0.37	1.14	0.04	0.04		262.85	
Pounds/Workdays	*Average Daily Emissions*					Workdays	
2025	2.86	8.72	0.34	0.31			**261**
2026	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**			
	Total Construction Emissions						
Pounds	745.87	2275.63	89.64	81.84		0.00	
Average	2.86	8.72	0.34	0.31		0.00	261.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**			

Apartments Total Construction Criteria Air Pollutants							
Unmitigate	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	**CO2e**	
Year	Tons					MT	
Construction Equipment							
2025	0.10	0.90	0.03	0.03	0.01	206.41	
2026	0.56	1.01	0.03	0.03	0.02	239.21	
	Total Construction Emissions						
Tons	0.66	1.91	0.07	0.06		445.62	
Pounds/Workdays	*Average Daily Emissions*					Workdays	
2025	0.93	8.57	0.33	0.30			**211**
2026	5.40	9.66	0.31	0.29			**209**
Threshold	**54.0**	**54.0**	**82.0**	**54.0**			
	Total Construction Emissions						
Pounds	1325.50	3826.72	134.76	123.63		0.00	
Average	3.16	9.11	0.32	0.29		0.00	420.00
Threshold	**54.0**	**54.0**	**82.0**	**54.0**			

2026 Operational Criteria Air Pollutants				
Unmitigated	ROG	NOX	Total PM10	Total PM2.5
Year	Tons			
Total	0.30	0.09	0.20	0.05
	Net Annual Operational Emissions			
Tons/year	0.30	0.09	0.20	0.05
Threshold -	**10.0**	**10.0**	**15.0**	**10.0**
	Average Daily Emissions			
Pounds Per Day	1.64	0.51	1.10	0.28
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**

Category	**CO2e**			
	Project			
Mobile	191.47			
Area	0.55			
Energy	0.00			
Water	0.98			
Waste	10.19			
Refrig.	0.04			
TOTAL	203.23	0.00	0.00	0.00
Net GHG Emissions		203.23		0.00

2026 Mobile Homes Operational + Apartment Construction Criteria Air Pollutants				
Unmitigated	ROG	NOX	Total PM10	Total PM2.5
Year	Tons			
Mobile Homes Operational	0.30	0.09	0.20	0.05
Apartment Construction	0.56	1.01	0.09	0.05
	Total Annual Operational Emissions			
Tons/year	0.86	1.10	0.29	0.10
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**
	Average Daily Emissions			
Mobile Homes Operational	1.64	0.51	1.10	0.28
Apartment Construction	5.40	9.66	0.88	0.48
	Average Daily Emissions			
Pounds Per Day	7.04	10.16	1.98	0.76
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**

Air Quality/Noise Construction Information Data Request

Project Name: **Buena Vista Redevelopment, Palo Alto DEFAULTS**

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size
- 61 Dwelling Units
- 1.69 total project acres disturbed
- 60,750 s.f. residential
- 0 s.f. retail
- 1586 s.f. office
- 1,063 s.f. other, specify: Community space
- 0 s.f. parking garage
- 24,370 s.f. parking lot
- 79 spaces

Construction Days (i.e, M-F) Monday to Saturday

Construction Hours 8:00 am to 5:00 pm

Pile Driving? Y/N? NO

Project include on-site GENERATOR OR FIRE PUMP during project OPERATION (not construction)? Y/N? NO

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: ________

Fuel Type: ___________

Location in project (Plans Desired if Available):

DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition (Mobile Homes & Site)	Start Date:	5/1/2025	Total phase:	30			Overall Import/Export Volumes
		End Date:	6/15/2025					
1	Concrete/Industrial Saws	81	0.73	6	30	6	10643	Demolition Volume
2	Excavators	158	0.38	6	30	6	21614	Square footage of buildings to be demolished
1	Rubber-Tired Dozers	247	0.4	6	30	6	17784	(*or* total tons to be hauled)
2	Tractors/Loaders/Backhoes	97	0.37	6	30	6	12920	20,678 square feet *or*
								_?_ Hauling volume (tons)
								Any pavement demolished and hauled? 1,040 tons or 52 loads
	Site Preparation/Improvements	Start Date:	7/1/2026	Total phase:	20			
		End Date:	7/31/2026					
1	Graders	187	0.41	6	20	6	9200	
1	Rubber Tired Dozers	247	0.4	6	20	6	11856	
3	Tractors/Loaders/Backhoes	97	0.37	6	20	6	12920	
1	Excavators	158	0.38	6	20	6	7205	
	Grading / Excavation (Rough Grading	Start Date:	6/15/2025	Total phase:	10			
		End Date:	6/30/2025					Soil Hauling Volume
1	Graders	187	0.41	6	10	6	4600	Export volume = 5,995 cubic yards?
1	Rubber Tired Dozers	247	0.4	6	10	6	5928	Import volume = 0 cubic yards
3	Tractors/Loaders/Backhoes	97	0.37	6	10	6	6460	
1	Excavators	158	0.38	6	10	6	3602	
	Trenching/Foundation (Utilities & Sla	Start Date:	7/1/2025	Total phase:	40			
		End Date:	9/30/2025					
2	Tractor/Loader/Backhoe	97	0.37	6	40	6	17227	
3	Excavators	158	0.38	6	40	6	43229	
1	Rubber Tired Dozers	247	0.4	6	40	6	23712	
	Building - Exterior (Superstructure,	Start Date:	10/1/2025	Total phase:	180			Concrete Import Volume 1658 CY's or 138 Loads
		End Date:	6/30/2026					
1	Cranes	231	0.29	6	180	6	72349	Electric? (Y/N) **No** Otherwise assumed diesel
2	Forklifts	89	0.2	6	180	6	38448	Liquid Propane (LPG)? (Y/N) **No** Otherwise Assumed diesel
2	Generator Sets	84	0.74	6	180	6	134266	Or temporary line power? (Y/N) **No**
2	Tractors/Loaders/Backhoes	97	0.37	6	180	6	77522	
1	Welders	46	0.45	6	180	6	22356	
	Building - Interior/Architectural Coa	Start Date:	3/1/2026	Total phase:	100			
		End Date:	7/30/2026					
4	Air Compressors	78	0.48	6	100	6	89856	
4	Aerial Lift	62	0.31	6	100	6	46128	
	Paving (Asphalt)	Start Date:	7/25/2026	Total phase:	5			Asphalt Import Volume - 620 tons or 31 loads
		Start Date:	7/31/2026					
1	Pavers	130	0.42	6	5	6	1638	
2	Paving Equipment	132	0.36	6	5	6	2851	
2	Rollers	80	0.38	6	5	6	1824	
1	Tractors/Loaders/Backhoes	97	0.37	6	5	6	1077	
	Additional Phases - Landscaping/Irrig	Start Date:	8/1/2026	Total phase:	20			
		Start Date:	8/31/2026					
3	Tractors/Loaders/Backhoes	97	0.37	6	20	6	12920	
2	Forklifts	89	0.2	6	20	6	4272	
1	Off Highway Truck	402	0.38	6	20	6	18331	

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs

Complete one sheet for each project component

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horsepower or load factor, as appropriate

24-030 Buena Vista Redevelopment, Palo Alto Mobile Homes BMPs T4i Detailed Report

Table of Contents

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-030 Buena Vista Redevelopment, Palo Alto Mobile Homes BMPs T4i
Construction Start Date	2/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.20
Precipitation (days)	18.8
Location	3980 El Camino Real, Palo Alto, CA 94306, USA
County	Santa Clara
City	Palo Alto
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1721
EDFZ	1
Electric Utility	City of Palo Alto
Gas Utility	City of Palo Alto Ultilities
App Version	2022.1.1.22

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

Mobile Home Park	44.0	Dwelling Unit	2.81	35,780	0.00	—	132	—
Parking Lot	58.0	Space	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	23.8	15.4	0.59	2.87	3.46	0.53	1.21	1.74	5,051
Mit.	23.4	10.9	0.19	2.87	2.98	0.18	1.21	1.31	5,051
% Reduced	2%	29%	67%	—	14%	67%	—	25%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	1.24	12.5	0.46	1.50	1.95	0.41	0.27	0.69	3,241
Mit.	0.32	8.98	0.14	1.50	1.64	0.12	0.27	0.40	3,241
% Reduced	75%	28%	70%	—	16%	70%	—	42%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	2.04	6.23	0.25	0.68	0.92	0.22	0.25	0.47	1,588
Mit.	1.58	4.68	0.06	0.68	0.73	0.05	0.25	0.30	1,588
% Reduced	23%	25%	76%	—	20%	76%	—	36%	—
Annual (Max)	—	—	—	—	—	—	—	—	—

Unmit.	0.37	1.14	0.04	0.12	0.17	0.04	0.04	0.09	263
Mit.	0.29	0.85	0.01	0.12	0.13	0.01	0.04	0.05	263
% Reduced	23%	25%	76%	—	20%	76%	—	36%	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2025	23.8	15.4	0.59	2.87	3.46	0.53	1.21	1.74	5,051
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2025	1.24	12.5	0.46	1.50	1.95	0.41	0.27	0.69	3,241
Average Daily	—	—	—	—	—	—	—	—	—
2025	2.04	6.23	0.25	0.68	0.92	0.22	0.25	0.47	1,588
Annual	—	—	—	—	—	—	—	—	—
2025	0.37	1.14	0.04	0.12	0.17	0.04	0.04	0.09	263

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2025	23.4	10.9	0.19	2.87	2.98	0.18	1.21	1.31	5,051
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2025	0.32	8.98	0.14	1.50	1.64	0.12	0.27	0.40	3,241
Average Daily	—	—	—	—	—	—	—	—	—

2025	1.58	4.68	0.06	0.68	0.73	0.05	0.25	0.30	1,588
Annual	—	—	—	—	—	—	—	—	—
2025	0.29	0.85	0.01	0.12	0.13	0.01	0.04	0.05	263

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	1.81	0.49	0.01	1.14	1.15	0.01	0.29	0.30	1,336
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	1.56	0.54	0.01	1.14	1.15	0.01	0.29	0.30	1,252
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	1.64	0.51	0.01	1.09	1.10	0.01	0.28	0.28	1,228
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.30	0.09	< 0.005	0.20	0.20	< 0.005	0.05	0.05	203

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile	0.69	0.46	0.01	1.14	1.15	0.01	0.29	0.30	1,261
Area	1.13	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.70
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	5.92
Waste	—	—	—	—	—	—	—	—	61.6

Refrig.	—	—	—	—	—	—	—	—	0.26
Total	1.81	0.49	0.01	1.14	1.15	0.01	0.29	0.30	1,336
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	0.66	0.54	0.01	1.14	1.15	0.01	0.29	0.30	1,185
Area	0.90	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	5.92
Waste	—	—	—	—	—	—	—	—	61.6
Refrig.	—	—	—	—	—	—	—	—	0.26
Total	1.56	0.54	0.01	1.14	1.15	0.01	0.29	0.30	1,252
Average Daily	—	—	—	—	—	—	—	—	—
Mobile	0.63	0.49	0.01	1.09	1.10	0.01	0.28	0.28	1,156
Area	1.01	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.30
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	5.92
Waste	—	—	—	—	—	—	—	—	61.6
Refrig.	—	—	—	—	—	—	—	—	0.26
Total	1.64	0.51	0.01	1.09	1.10	0.01	0.28	0.28	1,228
Annual	—	—	—	—	—	—	—	—	—
Mobile	0.11	0.09	< 0.005	0.20	0.20	< 0.005	0.05	0.05	191
Area	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.55
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	0.98
Waste	—	—	—	—	—	—	—	—	10.2
Refrig.	—	—	—	—	—	—	—	—	0.04
Total	0.30	0.09	< 0.005	0.20	0.20	< 0.005	0.05	0.05	203

2.6. Operations Emissions by Sector, Mitigated

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

Sector	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile	0.69	0.46	0.01	1.14	1.15	0.01	0.29	0.30	1,261
Area	1.13	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.70
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	5.92
Waste	—	—	—	—	—	—	—	—	61.6
Refrig.	—	—	—	—	—	—	—	—	0.26
Total	1.81	0.49	0.01	1.14	1.15	0.01	0.29	0.30	1,336
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	0.66	0.54	0.01	1.14	1.15	0.01	0.29	0.30	1,185
Area	0.90	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	5.92
Waste	—	—	—	—	—	—	—	—	61.6
Refrig.	—	—	—	—	—	—	—	—	0.26
Total	1.56	0.54	0.01	1.14	1.15	0.01	0.29	0.30	1,252
Average Daily	—	—	—	—	—	—	—	—	—
Mobile	0.63	0.49	0.01	1.09	1.10	0.01	0.28	0.28	1,156
Area	1.01	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.30
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	5.92
Waste	—	—	—	—	—	—	—	—	61.6
Refrig.	—	—	—	—	—	—	—	—	0.26

Total	1.64	0.51	0.01	1.09	1.10	0.01	0.28	0.28	1,228
Annual	—	—	—	—	—	—	—	—	—
Mobile	0.11	0.09	< 0.005	0.20	0.20	< 0.005	0.05	0.05	191
Area	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.55
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	0.98
Waste	—	—	—	—	—	—	—	—	10.2
Refrig.	—	—	—	—	—	—	—	—	0.04
Total	0.30	0.09	< 0.005	0.20	0.20	< 0.005	0.05	0.05	203

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.17	10.9	0.43	—	0.43	0.40	—	0.40	1,871
Demolition	—	—	—	1.07	1.07	—	0.16	0.16	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.22	0.05	—	0.05	0.04	—	0.04	210
Demolition	—	—	—	0.12	0.12	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.22	0.01	—	0.01	0.01	—	0.01	34.8
Demolition	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.00	0.12	0.12	0.00	0.03	0.03	121
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.56	0.02	0.31	0.33	0.01	0.08	0.10	1,249
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	13.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.17	< 0.005	0.03	0.04	< 0.005	0.01	0.01	140
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	23.2

3.2. Demolition (2025) - Mitigated

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

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

Off-Road Equipment	0.24	7.37	0.12	—	0.12	0.11	—	0.11	1,871
Demolition	—	—	—	1.07	1.07	—	0.16	0.16	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.83	0.01	—	0.01	0.01	—	0.01	210
Demolition	—	—	—	0.12	0.12	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.15	< 0.005	—	< 0.005	< 0.005	—	< 0.005	34.8
Demolition	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.00	0.12	0.12	0.00	0.03	0.03	121
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.56	0.02	0.31	0.33	0.01	0.08	0.10	1,249
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	13.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.17	< 0.005	0.03	0.04	< 0.005	0.01	0.01	140
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	23.2

3.3. Site Preparation (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.31	12.2	0.54	—	0.54	0.50	—	0.50	2,227
Dust From Material Movement	—	—	—	2.07	2.07	—	1.00	1.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.47	0.07	—	0.07	0.06	—	0.06	268
Dust From Material Movement	—	—	—	0.25	0.25	—	0.12	0.12	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.27	0.01	—	0.01	0.01	—	0.01	44.4
Dust From Material Movement	—	—	—	0.05	0.05	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.12	0.12	0.00	0.03	0.03	131
Vendor	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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	14.7
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.44
Vendor	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

3.4. Site Preparation (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	7.71	0.06	—	0.06	0.06	—	0.06	2,227
Dust From Material Movement	—	—	—	2.07	2.07	—	1.00	1.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.93	0.01	—	0.01	0.01	—	0.01	268
Dust From Material Movement	—	—	—	0.25	0.25	—	0.12	0.12	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.17	< 0.005	—	< 0.005	< 0.005	—	< 0.005	44.4
Dust From Material Movement	—	—	—	0.05	0.05	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.12	0.12	0.00	0.03	0.03	131
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	14.7
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.44
Vendor	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

3.5. Landscaping/Irrigation/Fencing (2025) - Unmitigated

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

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

Off-Road Equipment	0.69	5.64	0.23	—	0.23	0.21	—	0.21	1,888
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.57	0.02	—	0.02	0.02	—	0.02	191
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	< 0.005	—	< 0.005	< 0.005	—	< 0.005	31.7
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.00	0.12	0.12	0.00	0.03	0.03	121
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	12.4
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.05

Vendor	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

3.6. Landscaping/Irrigation/Fencing (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	6.02	0.04	—	0.04	0.04	—	0.04	1,888
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.61	< 0.005	—	< 0.005	< 0.005	—	< 0.005	191
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.11	< 0.005	—	< 0.005	< 0.005	—	< 0.005	31.7
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.00	0.12	0.12	0.00	0.03	0.03	121
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	12.4
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.05
Vendor	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

3.7. Grading (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.31	12.2	0.54	—	0.54	0.50	—	0.50	2,227
Dust From Material Movement	—	—	—	2.08	2.08	—	1.00	1.00	—
Onsite truck	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	0.08	0.74	0.03	—	0.03	0.03	—	0.03	134

Dust From Material Movement	—	—	—	0.13	0.13	—	0.06	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.01	—	0.01	0.01	—	0.01	22.2
Dust From Material Movement	—	—	—	0.02	0.02	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.12	0.12	0.00	0.03	0.03	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	3.20	0.05	0.66	0.71	0.03	0.18	0.21	2,693
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.36
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.20	< 0.005	0.04	0.04	< 0.005	0.01	0.01	162
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.04	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	26.9

3.8. Grading (2025) - Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	7.71	0.06	—	0.06	0.06	—	0.06	2,227
Dust From Material Movement	—	—	—	2.08	2.08	—	1.00	1.00	—
Onsite truck	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	0.02	0.46	< 0.005	—	< 0.005	< 0.005	—	< 0.005	134
Dust From Material Movement	—	—	—	0.13	0.13	—	0.06	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22.2
Dust From Material Movement	—	—	—	0.02	0.02	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.12	0.12	0.00	0.03	0.03	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	3.20	0.05	0.66	0.71	0.03	0.18	0.21	2,693
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.36
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	0.20	< 0.005	0.04	0.04	< 0.005	0.01	0.01	162
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.04	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	26.9

3.9. Building Construction (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	3.86	0.17	—	0.17	0.15	—	0.15	657
Onsite truck	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	0.03	0.23	0.01	—	0.01	0.01	—	0.01	39.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.55
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.11	0.08	0.00	0.26	0.26	0.00	0.06	0.06	276
Vendor	< 0.005	0.16	< 0.005	0.03	0.03	< 0.005	0.01	0.01	133

Hauling	0.02	1.19	0.02	0.25	0.26	0.01	0.07	0.08	1,001
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.02	0.02	0.00	< 0.005	< 0.005	15.5
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.00
Hauling	< 0.005	0.07	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	60.3
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.57
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.32
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	9.98

3.10. Building Construction (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	3.84	0.09	—	0.09	0.08	—	0.08	657
Onsite truck	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	0.01	0.23	0.01	—	0.01	0.01	—	0.01	39.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.55
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.11	0.08	0.00	0.26	0.26	0.00	0.06	0.06	276
Vendor	< 0.005	0.16	< 0.005	0.03	0.03	< 0.005	0.01	0.01	133
Hauling	0.02	1.19	0.02	0.25	0.26	0.01	0.07	0.08	1,001
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.02	0.02	0.00	< 0.005	< 0.005	15.5
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.00
Hauling	< 0.005	0.07	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	60.3
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.57
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.32
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	9.98

3.11. Paving (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	5.23	0.23	—	0.23	0.21	—	0.21	1,118
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.09	< 0.005	—	< 0.005	< 0.005	—	< 0.005	18.4
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.04
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.00	0.12	0.12	0.00	0.03	0.03	121
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	1.88	0.03	0.37	0.40	0.02	0.10	0.12	1,503
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	24.7
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.09

3.12. Paving (2025) - Mitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	5.32	0.06	—	0.06	0.06	—	0.06	1,118
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.09	< 0.005	—	< 0.005	< 0.005	—	< 0.005	18.4
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.04
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.00	0.12	0.12	0.00	0.03	0.03	121
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	1.88	0.03	0.37	0.40	0.02	0.10	0.12	1,503
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	24.7

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.09

3.13. Architectural Coating (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	3.07	0.09	—	0.09	0.09	—	0.09	586
Architectural Coatings	22.9	—	—	—	—	—	—	—	—
Onsite truck	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	0.02	0.19	0.01	—	0.01	0.01	—	0.01	35.3
Architectural Coatings	1.38	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.84
Architectural Coatings	0.25	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.05	0.05	0.00	0.01	0.01	55.2
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.11
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.51
Vendor	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

3.14. Architectural Coating (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	3.72	0.08	—	0.08	0.08	—	0.08	586
Architectural Coatings	22.9	—	—	—	—	—	—	—	—
Onsite truck	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	0.01	0.22	0.01	—	0.01	< 0.005	—	< 0.005	35.3
Architectural Coatings	1.38	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.84
Architectural Coatings	0.25	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.05	0.05	0.00	0.01	0.01	55.2
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.11
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.51
Vendor	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

3.15. Trenching (Utilities) (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10	10.3	0.42	—	0.42	0.39	—	0.39	1,794
Onsite truck	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	0.13	1.22	0.05	—	0.05	0.05	—	0.05	211
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.22	0.01	—	0.01	0.01	—	0.01	35.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.12	0.12	0.00	0.03	0.03	131
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	14.4
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.38

Vendor	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

3.16. Trenching (Utilities) (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	6.74	0.10	—	0.10	0.09	—	0.09	1,794
Onsite truck	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	0.03	0.79	0.01	—	0.01	0.01	—	0.01	211
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.14	< 0.005	—	< 0.005	< 0.005	—	< 0.005	35.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.12	0.12	0.00	0.03	0.03	131
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—

Worker	0.01	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	14.4
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.38
Vendor	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

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.69	0.46	0.01	1.14	1.15	0.01	0.29	0.30	1,261
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.69	0.46	0.01	1.14	1.15	0.01	0.29	0.30	1,261
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.66	0.54	0.01	1.14	1.15	0.01	0.29	0.30	1,185
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.66	0.54	0.01	1.14	1.15	0.01	0.29	0.30	1,185
Annual	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.11	0.09	< 0.005	0.20	0.20	< 0.005	0.05	0.05	191
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.11	0.09	< 0.005	0.20	0.20	< 0.005	0.05	0.05	191

4.1.2. Mitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.69	0.46	0.01	1.14	1.15	0.01	0.29	0.30	1,261
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.69	0.46	0.01	1.14	1.15	0.01	0.29	0.30	1,261
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.66	0.54	0.01	1.14	1.15	0.01	0.29	0.30	1,185
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.66	0.54	0.01	1.14	1.15	0.01	0.29	0.30	1,185
Annual	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.11	0.09	< 0.005	0.20	0.20	< 0.005	0.05	0.05	191
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.11	0.09	< 0.005	0.20	0.20	< 0.005	0.05	0.05	191

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Mobile Home Park	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	0.00
Annual	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	0.00

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	0.00
Annual	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Mobile Home Park	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	0.77	—	—	—	—	—	—	—	—
Architectural Coatings	0.14	—	—	—	—	—	—	—	—
Landscape Equipment	0.22	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.70
Total	1.13	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.70
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	0.77	—	—	—	—	—	—	—	—
Architectural Coatings	0.14	—	—	—	—	—	—	—	—
Total	0.90	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	0.14	—	—	—	—	—	—	—	—

Architectural Coatings	0.03	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.55
Total	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.55

4.3.2. Mitigated

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

Source	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	0.77	—	—	—	—	—	—	—	—
Architectural Coatings	0.14	—	—	—	—	—	—	—	—
Landscape Equipment	0.22	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.70
Total	1.13	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.70
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	0.77	—	—	—	—	—	—	—	—
Architectural Coatings	0.14	—	—	—	—	—	—	—	—
Total	0.90	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	0.14	—	—	—	—	—	—	—	—

Architectural Coatings	0.03	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.55
Total	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.55

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	5.92
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	5.92
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	5.92
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	5.92
Annual	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	0.98
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	0.98

4.4.2. Mitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	5.92
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	5.92
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	5.92
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	5.92
Annual	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	0.98
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	0.98

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	61.6
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	61.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	61.6
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	61.6

Annual	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	10.2
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	10.2

4.5.2. Mitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	61.6
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	61.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	61.6
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	61.6
Annual	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	10.2
Parking Lot	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	10.2

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	0.26
Total	—	—	—	—	—	—	—	—	0.26
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	0.26
Total	—	—	—	—	—	—	—	—	0.26
Annual	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	0.04
Total	—	—	—	—	—	—	—	—	0.04

4.6.2. Mitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	0.26
Total	—	—	—	—	—	—	—	—	0.26
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	0.26
Total	—	—	—	—	—	—	—	—	0.26
Annual	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	0.04
Total	—	—	—	—	—	—	—	—	0.04

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.7.2. Mitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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)

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

Total	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	2/1/2025	3/31/2025	5.00	41.0	—
Site Preparation	Site Preparation	7/1/2025	8/30/2025	5.00	44.0	—
Landscaping/Irrigation/Fencing	Site Preparation	10/9/2025	11/30/2025	5.00	37.0	—
Grading	Grading	4/1/2025	4/30/2025	5.00	22.0	—
Building Construction	Building Construction	9/1/2025	9/30/2025	5.00	22.0	—
Paving	Paving	10/1/2025	10/8/2025	5.00	6.00	—
Architectural Coating	Architectural Coating	9/1/2025	9/30/2025	5.00	22.0	—
Trenching (Utilities)	Trenching	5/1/2025	6/30/2025	5.00	43.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

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

Demolition	Excavators	Diesel	Average	2.00	6.00	36.0	0.38
Site Preparation	Graders	Diesel	Average	1.00	6.00	148	0.41
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	3.00	6.00	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Site Preparation	Excavators	Diesel	Average	1.00	6.00	36.0	0.38
Landscaping/Irrigation/Fencing	Tractors/Loaders/Backhoes	Diesel	Average	3.00	6.00	84.0	0.37
Landscaping/Irrigation/Fencing	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Landscaping/Irrigation/Fencing	Off-Highway Trucks	Diesel	Average	1.00	6.00	376	0.38
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	6.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	6.00	36.0	0.38
Building Construction	Forklifts	Diesel	Average	3.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	2.00	6.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	6.00	46.0	0.45
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	2.00	6.00	46.0	0.31
Architectural Coating	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Trenching (Utilities)	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37

Trenching (Utilities)	Excavators	Diesel	Average	3.00	6.00	36.0	0.38
Trenching (Utilities)	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40

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	Tier 4 Interim	1.00	6.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	6.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	6.00	84.0	0.37
Demolition	Excavators	Diesel	Tier 4 Interim	2.00	6.00	36.0	0.38
Site Preparation	Graders	Diesel	Tier 4 Interim	1.00	6.00	148	0.41
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	6.00	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	6.00	367	0.40
Site Preparation	Excavators	Diesel	Tier 4 Interim	1.00	6.00	36.0	0.38
Landscaping/Irrigation/Fencing	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	6.00	84.0	0.37
Landscaping/Irrigation/Fencing	Forklifts	Diesel	Tier 4 Interim	2.00	6.00	82.0	0.20
Landscaping/Irrigation/Fencing	Off-Highway Trucks	Diesel	Tier 4 Interim	1.00	6.00	376	0.38
Grading	Graders	Diesel	Tier 4 Interim	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	6.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Interim	1.00	6.00	36.0	0.38
Building Construction	Forklifts	Diesel	Tier 4 Interim	3.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	2.00	6.00	14.0	0.74
Building Construction	Welders	Diesel	Tier 4 Interim	1.00	6.00	46.0	0.45

Paving	Pavers	Diesel	Tier 4 Interim	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	6.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	6.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Tier 4 Interim	2.00	6.00	46.0	0.31
Architectural Coating	Forklifts	Diesel	Tier 4 Interim	2.00	6.00	82.0	0.20
Trenching (Utilities)	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	6.00	84.0	0.37
Trenching (Utilities)	Excavators	Diesel	Tier 4 Interim	3.00	6.00	36.0	0.38
Trenching (Utilities)	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	6.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	16.6	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	15.0	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—

Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	35.8	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	31.7	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	4.70	8.40	HHDT,MHDT
Building Construction	Hauling	13.3	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	20.0	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.34	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching (Utilities)	—	—	—	—
Trenching (Utilities)	Worker	15.0	11.7	LDA,LDT1,LDT2
Trenching (Utilities)	Vendor	—	8.40	HHDT,MHDT
Trenching (Utilities)	Hauling	0.00	20.0	HHDT
Trenching (Utilities)	Onsite truck	—	—	HHDT
Landscaping/Irrigation/Fencing	—	—	—	—
Landscaping/Irrigation/Fencing	Worker	15.0	11.7	LDA,LDT1,LDT2
Landscaping/Irrigation/Fencing	Vendor	—	8.40	HHDT,MHDT

Landscaping/Irrigation/Fencing	Hauling	0.00	20.0	HHDT
Landscaping/Irrigation/Fencing	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	16.6	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	15.0	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	35.8	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	31.7	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	4.70	8.40	HHDT,MHDT
Building Construction	Hauling	13.3	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2

Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	20.0	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.34	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching (Utilities)	—	—	—	—
Trenching (Utilities)	Worker	15.0	11.7	LDA,LDT1,LDT2
Trenching (Utilities)	Vendor	—	8.40	HHDT,MHDT
Trenching (Utilities)	Hauling	0.00	20.0	HHDT
Trenching (Utilities)	Onsite truck	—	—	HHDT
Landscaping/Irrigation/Fencing	—	—	—	—
Landscaping/Irrigation/Fencing	Worker	15.0	11.7	LDA,LDT1,LDT2
Landscaping/Irrigation/Fencing	Vendor	—	8.40	HHDT,MHDT
Landscaping/Irrigation/Fencing	Hauling	0.00	20.0	HHDT
Landscaping/Irrigation/Fencing	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	72,455	24,152	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	41,564	—
Site Preparation	—	—	33.0	0.00	—
Landscaping/Irrigation/Fencing	—	—	0.00	0.00	—
Grading	—	6,290	16.5	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Mobile Home Park	—	0%
Parking Lot	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	0.00	0.00	0.00

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
Mobile Home Park	220	203	187	77,662	1,620	1,494	1,374	571,876
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Mobile Home Park	220	203	187	77,662	1,620	1,494	1,374	571,876
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Mobile Home Park	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Mobile Home Park	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
72454.5	24,152	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

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)
Mobile Home Park	551,865	0.00	0.0000	0.0000	0.00
Parking Lot	0.00	0.00	0.0000	0.0000	0.00

5.11.2. Mitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Mobile Home Park	551,865	0.00	0.0000	0.0000	0.00
Parking Lot	0.00	0.00	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Mobile Home Park	1,595,722	0.00
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Mobile Home Park	1,595,722	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Mobile Home Park	32.6	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Mobile Home Park	32.6	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Mobile Home Park	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Mobile Home Park	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Mobile Home Park	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Mobile Home Park	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.15.2. Mitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.4	annual days of extreme heat
Extreme Precipitation	6.40	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	0	0	0	N/A

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

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	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	1	1	1	2

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	13.6
AQ-PM	15.2
AQ-DPM	63.9
Drinking Water	43.7
Lead Risk Housing	60.0

Pesticides	28.1
Toxic Releases	31.3
Traffic	75.3
Effect Indicators	—
CleanUp Sites	89.3
Groundwater	91.0
Haz Waste Facilities/Generators	72.0
Impaired Water Bodies	23.9
Solid Waste	0.00
Sensitive Population	—
Asthma	1.87
Cardio-vascular	3.43
Low Birth Weights	5.41
Socioeconomic Factor Indicators	—
Education	5.50
Housing	1.62
Linguistic	57.4
Poverty	24.9
Unemployment	44.4

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	81.43205441
Employed	86.78301039
Median HI	94.55921981

Education	—
Bachelor's or higher	97.12562556
High school enrollment	100
Preschool enrollment	43.68022584
Transportation	—
Auto Access	77.83908636
Active commuting	84.11394842
Social	—
2-parent households	81.89400744
Voting	92.10830232
Neighborhood	—
Alcohol availability	67.49647119
Park access	81.35506224
Retail density	84.13961247
Supermarket access	49.50596689
Tree canopy	82.20197613
Housing	—
Homeownership	59.87424612
Housing habitability	78.15988708
Low-inc homeowner severe housing cost burden	96.95880919
Low-inc renter severe housing cost burden	74.68240729
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	81.62453484
Arthritis	0.0
Asthma ER Admissions	99.3
High Blood Pressure	0.0

Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	98.9
Cognitively Disabled	84.2
Physically Disabled	55.6
Heart Attack ER Admissions	94.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	25.8
English Speaking	41.6
Foreign-born	69.3
Outdoor Workers	72.2

Climate Change Adaptive Capacity	—
Impervious Surface Cover	64.5
Traffic Density	50.0
Traffic Access	66.9
Other Indices	—
Hardship	8.2
Other Decision Support	—
2016 Voting	92.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	10.0
Healthy Places Index Score for Project Location (b)	95.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Total number of dwelling units, square footage (residential + office combined as residential), and number of parking spaces provided by filled out construction worksheet.
Construction: Construction Phases	Provided construction dates from filled-out construction worksheet.
Construction: Off-Road Equipment	Provided equipment quantity and hours from filled out construction worksheet.
Construction: Trips and VMT	Demolition = 99 hauling truck round trips (4.95 trips/day), Mobile Home Building Construction = 133 concrete truck round trips (13.3 trips/day), Paving = 50 asphalt truck round trips (20 trips/day).
Construction: On-Road Fugitive Dust	Air District Required BMPs = 15 mph.
Operations: Hearths	No hearths.
Operations: Energy Use	Project design is all-electric. Confirmed no natural gas. Convert natural gas to electricity.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.

24-030 Buena Vista Redevelopment, Palo Alto Apartments BMPs T4i Const Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-030 Buena Vista Redevelopment, Palo Alto Apartments BMPs T4i Const
Construction Start Date	5/1/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.20
Precipitation (days)	18.8
Location	3980 El Camino Real, Palo Alto, CA 94306, USA
County	Santa Clara
City	Palo Alto
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1721
EDFZ	1
Electric Utility	City of Palo Alto
Gas Utility	City of Palo Alto Ultilities
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	61.0	Dwelling Unit	1.69	63,399	0.00	—	182	—

Parking Lot	79.0	Space	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	10.7	30.2	1.08	4.49	5.57	0.97	1.57	2.53	10,314
Mit.	8.95	22.2	0.36	4.49	4.77	0.34	1.57	1.81	10,314
% Reduced	16%	26%	67%	—	14%	65%	—	29%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	9.75	13.4	0.39	0.51	0.90	0.36	0.12	0.48	3,412
Mit.	8.86	15.2	0.33	0.51	0.84	0.31	0.12	0.43	3,412
% Reduced	9%	-13%	15%	—	6%	14%	—	11%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	3.09	5.53	0.19	0.32	0.50	0.18	0.11	0.27	1,445
Mit.	2.71	5.86	0.11	0.32	0.44	0.11	0.11	0.22	1,445
% Reduced	12%	-6%	41%	—	13%	40%	—	21%	—
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.56	1.01	0.03	0.06	0.09	0.03	0.02	0.05	239

Mit.	0.49	1.07	0.02	0.06	0.08	0.02	0.02	0.04	239
% Reduced	12%	-6%	41%	—	13%	40%	—	21%	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2025	2.69	30.2	1.08	4.49	5.57	0.97	1.57	2.53	10,314
2026	10.7	22.9	0.81	2.62	3.43	0.75	1.14	1.89	5,572
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2025	1.00	8.22	0.32	0.44	0.75	0.29	0.11	0.40	2,374
2026	9.75	13.4	0.39	0.51	0.90	0.36	0.12	0.48	3,412
Average Daily	—	—	—	—	—	—	—	—	—
2025	0.54	4.95	0.19	0.29	0.48	0.18	0.08	0.26	1,247
2026	3.09	5.53	0.18	0.32	0.50	0.16	0.11	0.27	1,445
Annual	—	—	—	—	—	—	—	—	—
2025	0.10	0.90	0.03	0.05	0.09	0.03	0.01	0.05	206
2026	0.56	1.01	0.03	0.06	0.09	0.03	0.02	0.05	239

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2025	0.76	22.2	0.28	4.49	4.77	0.24	1.57	1.81	10,314
2026	8.95	21.9	0.36	2.62	2.98	0.34	1.14	1.48	5,572

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2025	0.51	7.47	0.12	0.44	0.55	0.11	0.11	0.21	2,374
2026	8.86	15.2	0.33	0.51	0.84	0.31	0.12	0.43	3,412
Average Daily	—	—	—	—	—	—	—	—	—
2025	0.18	3.73	0.05	0.29	0.35	0.05	0.08	0.13	1,247
2026	2.71	5.86	0.11	0.32	0.44	0.11	0.11	0.22	1,445
Annual	—	—	—	—	—	—	—	—	—
2025	0.03	0.68	0.01	0.05	0.06	0.01	0.01	0.02	206
2026	0.49	1.07	0.02	0.06	0.08	0.02	0.02	0.04	239

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.17	10.9	0.43	—	0.43	0.40	—	0.40	1,871
Demolition	—	—	—	0.68	0.68	—	0.10	0.10	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.95	0.04	—	0.04	0.03	—	0.03	164
Demolition	—	—	—	0.06	0.06	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.01	—	0.01	0.01	—	0.01	27.2
Demolition	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.12	0.12	0.00	0.03	0.03	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.98	0.01	0.20	0.22	0.01	0.06	0.06	821
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.09	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	71.9
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	11.9

3.2. Demolition (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	7.37	0.12	—	0.12	0.11	—	0.11	1,871

Demolition	—	—	—	0.68	0.68	—	0.10	0.10	—
Onsite truck	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	0.02	0.65	0.01	—	0.01	0.01	—	0.01	164
Demolition	—	—	—	0.06	0.06	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.12	< 0.005	—	< 0.005	< 0.005	—	< 0.005	27.2
Demolition	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.12	0.12	0.00	0.03	0.03	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.98	0.01	0.20	0.22	0.01	0.06	0.06	821
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.09	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	71.9
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	11.9

3.3. Site Preparation (2026) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	11.2	0.48	—	0.48	0.45	—	0.45	2,227
Dust From Material Movement	—	—	—	2.07	2.07	—	1.00	1.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.71	0.03	—	0.03	0.03	—	0.03	140
Dust From Material Movement	—	—	—	0.13	0.13	—	0.06	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.01	—	0.01	0.01	—	0.01	23.2
Dust From Material Movement	—	—	—	0.02	0.02	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.03	0.00	0.12	0.12	0.00	0.03	0.03	128
Vendor	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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.55
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.25
Vendor	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

3.4. Site Preparation (2026) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	7.71	0.06	—	0.06	0.06	—	0.06	2,227
Dust From Material Movement	—	—	—	2.07	2.07	—	1.00	1.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.49	< 0.005	—	< 0.005	< 0.005	—	< 0.005	140
Dust From Material Movement	—	—	—	0.13	0.13	—	0.06	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.09	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.2
Dust From Material Movement	—	—	—	0.02	0.02	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.03	0.00	0.12	0.12	0.00	0.03	0.03	128
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.55
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.25
Vendor	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

3.5. Landscaping/Irrigation/Fencing (2026) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	5.25	0.19	—	0.19	0.18	—	0.18	1,889

Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.30	0.01	—	0.01	0.01	—	0.01	109
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	18.0
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.03	0.00	0.12	0.12	0.00	0.03	0.03	128
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.89
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.14
Vendor	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

3.6. Landscaping/Irrigation/Fencing (2026) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	6.02	0.04	—	0.04	0.04	—	0.04	1,889
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	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	0.01	0.35	< 0.005	—	< 0.005	< 0.005	—	< 0.005	109
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	18.0
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.03	0.00	0.12	0.12	0.00	0.03	0.03	128

Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	6.89
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.14
Vendor	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

3.7. Grading (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.31	12.2	0.54	—	0.54	0.50	—	0.50	2,227
Dust From Material Movement	—	—	—	2.09	2.09	—	1.01	1.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.37	0.02	—	0.02	0.02	—	0.02	67.1
Dust From Material Movement	—	—	—	0.06	0.06	—	0.03	0.03	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.1
Dust From Material Movement	—	—	—	0.01	0.01	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.12	0.12	0.00	0.03	0.03	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	6.10	0.09	1.26	1.35	0.06	0.35	0.41	5,134
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.19	< 0.005	0.04	0.04	< 0.005	0.01	0.01	155
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	25.6

3.8. Grading (2025) - Mitigated

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

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

Off-Road Equipment	0.30	7.71	0.06	—	0.06	0.06	—	0.06	2,227
Dust From Material Movement	—	—	—	2.09	2.09	—	1.01	1.01	—
Onsite truck	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	0.01	0.23	< 0.005	—	< 0.005	< 0.005	—	< 0.005	67.1
Dust From Material Movement	—	—	—	0.06	0.06	—	0.03	0.03	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.1
Dust From Material Movement	—	—	—	0.01	0.01	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.12	0.12	0.00	0.03	0.03	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	6.10	0.09	1.26	1.35	0.06	0.35	0.41	5,134
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.19	< 0.005	0.04	0.04	< 0.005	0.01	0.01	155
Annual	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	25.6

3.9. Building Construction (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	7.70	0.31	—	0.31	0.29	—	0.29	1,724
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.39	0.06	—	0.06	0.05	—	0.05	310
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.25	0.01	—	0.01	0.01	—	0.01	51.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.00	0.36	0.36	0.00	0.09	0.09	353
Vendor	0.01	0.24	< 0.005	0.05	0.05	< 0.005	0.01	0.02	184
Hauling	< 0.005	0.14	< 0.005	0.03	0.03	< 0.005	0.01	0.01	113

Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.06	0.06	0.00	0.02	0.02	64.4
Vendor	< 0.005	0.04	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	33.1
Hauling	< 0.005	0.02	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	20.3
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.7
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.48
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.36

3.10. Building Construction (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	6.95	0.11	—	0.11	0.10	—	0.10	1,724
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	1.25	0.02	—	0.02	0.02	—	0.02	310
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.23	< 0.005	—	< 0.005	< 0.005	—	< 0.005	51.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.00	0.36	0.36	0.00	0.09	0.09	353
Vendor	0.01	0.24	< 0.005	0.05	0.05	< 0.005	0.01	0.02	184
Hauling	< 0.005	0.14	< 0.005	0.03	0.03	< 0.005	0.01	0.01	113
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.06	0.06	0.00	0.02	0.02	64.4
Vendor	< 0.005	0.04	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	33.1
Hauling	< 0.005	0.02	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	20.3
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.7
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.48
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.36

3.11. Building Construction (2026) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81	7.31	0.28	—	0.28	0.26	—	0.26	1,724
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81	7.31	0.28	—	0.28	0.26	—	0.26	1,724
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.29	2.59	0.10	—	0.10	0.09	—	0.09	611
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.47	0.02	—	0.02	0.02	—	0.02	101
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.14	0.09	0.00	0.36	0.36	0.00	0.09	0.09	375
Vendor	0.01	0.21	< 0.005	0.05	0.05	< 0.005	0.01	0.02	181
Hauling	< 0.005	0.13	< 0.005	0.03	0.03	< 0.005	0.01	0.01	111
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.12	0.12	0.00	0.36	0.36	0.00	0.09	0.09	347
Vendor	0.01	0.23	< 0.005	0.05	0.05	< 0.005	0.01	0.02	181
Hauling	< 0.005	0.14	< 0.005	0.03	0.03	< 0.005	0.01	0.01	111
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.00	0.13	0.13	0.00	0.03	0.03	124
Vendor	< 0.005	0.08	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	64.1
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	39.2
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.02	0.02	0.00	0.01	0.01	20.6
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.6
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.49

3.12. Building Construction (2026) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	6.95	0.11	—	0.11	0.10	—	0.10	1,724
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	6.95	0.11	—	0.11	0.10	—	0.10	1,724
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	2.46	0.04	—	0.04	0.04	—	0.04	611
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.45	0.01	—	0.01	0.01	—	0.01	101
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.14	0.09	0.00	0.36	0.36	0.00	0.09	0.09	375
Vendor	0.01	0.21	< 0.005	0.05	0.05	< 0.005	0.01	0.02	181
Hauling	< 0.005	0.13	< 0.005	0.03	0.03	< 0.005	0.01	0.01	111
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.12	0.12	0.00	0.36	0.36	0.00	0.09	0.09	347
Vendor	0.01	0.23	< 0.005	0.05	0.05	< 0.005	0.01	0.02	181
Hauling	< 0.005	0.14	< 0.005	0.03	0.03	< 0.005	0.01	0.01	111
Average Daily	—	—	—	—	—	—	—	—	—

Worker	0.04	0.04	0.00	0.13	0.13	0.00	0.03	0.03	124
Vendor	< 0.005	0.08	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	64.1
Hauling	< 0.005	0.05	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	39.2
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.02	0.02	0.00	0.01	0.01	20.6
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.6
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.49

3.13. Paving (2026) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.97	0.21	—	0.21	0.19	—	0.19	1,118
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	0.01	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	15.3
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.54
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.03	0.00	0.12	0.12	0.00	0.03	0.03	128
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.07	0.01	0.23	0.24	0.01	0.06	0.07	916
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.64
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	12.5
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.07

3.14. Paving (2026) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	5.32	0.06	—	0.06	0.06	—	0.06	1,118
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	15.3
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.54
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.03	0.00	0.12	0.12	0.00	0.03	0.03	128
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.07	0.01	0.23	0.24	0.01	0.06	0.07	916
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.64
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	12.5
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.07

3.15. Architectural Coating (2026) - Unmitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	5.59	0.11	—	0.11	0.10	—	0.10	980
Architectural Coatings	8.19	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	5.59	0.11	—	0.11	0.10	—	0.10	980
Architectural Coatings	8.19	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.67	0.03	—	0.03	0.03	—	0.03	293
Architectural Coatings	2.45	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.30	0.01	—	0.01	0.01	—	0.01	48.5
Architectural Coatings	0.45	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.00	0.07	0.07	0.00	0.02	0.02	75.0
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.07	0.07	0.00	0.02	0.02	69.4
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.02	0.02	0.00	0.01	0.01	21.0
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.47
Vendor	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

3.16. Architectural Coating (2026) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	7.71	0.22	—	0.22	0.20	—	0.20	980
Architectural Coatings	8.19	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	7.71	0.22	—	0.22	0.20	—	0.20	980

Architectural Coatings	8.19	—	—	—	—	—	—	—	—
Onsite truck	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	2.30	0.07	—	0.07	0.06	—	0.06	293
Architectural Coatings	2.45	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.42	0.01	—	0.01	0.01	—	0.01	48.5
Architectural Coatings	0.45	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.00	0.07	0.07	0.00	0.02	0.02	75.0
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.07	0.07	0.00	0.02	0.02	69.4
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.02	0.02	0.00	0.01	0.01	21.0
Vendor	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
Annual	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.47
Vendor	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

3.17. Trenching (Utilities & Slab on Grade (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10	10.3	0.42	—	0.42	0.39	—	0.39	1,794
Onsite truck	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	0.20	1.87	0.08	—	0.08	0.07	—	0.07	324
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.34	0.01	—	0.01	0.01	—	0.01	53.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.12	0.12	0.00	0.03	0.03	131
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.02	0.02	0.00	0.01	0.01	22.1
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.66
Vendor	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

3.18. Trenching (Utilities & Slab on Grade (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	6.74	0.10	—	0.10	0.09	—	0.09	1,794
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	1.22	0.02	—	0.02	0.02	—	0.02	324
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.22	< 0.005	—	< 0.005	< 0.005	—	< 0.005	53.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.00	0.12	0.12	0.00	0.03	0.03	131
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.02	0.02	0.00	0.01	0.01	22.1
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.66
Vendor	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

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

Total	—	—	—	—	—	—	—	—	—

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	5/1/2025	6/15/2025	5.00	32.0	—
Site Preparation	Site Preparation	7/1/2026	7/31/2026	5.00	23.0	—
Landscaping/Irrigation/Fencing	Site Preparation	8/1/2026	8/31/2026	5.00	21.0	—
Grading	Grading	6/15/2025	6/30/2025	5.00	11.0	—
Building Construction	Building Construction	10/1/2025	6/30/2026	5.00	195	—
Paving	Paving	7/25/2026	7/31/2026	5.00	5.00	—
Architectural Coating	Architectural Coating	3/1/2026	7/30/2026	5.00	109	—
Trenching (Utilities & Slab on Grade	Trenching	7/1/2025	9/30/2025	5.00	66.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	6.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Demolition	Excavators	Diesel	Average	2.00	6.00	36.0	0.38
Site Preparation	Graders	Diesel	Average	1.00	6.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	3.00	6.00	84.0	0.37
Site Preparation	Excavators	Diesel	Average	1.00	6.00	36.0	0.38
Landscaping/Irrigation/Fencing	Tractors/Loaders/Backhoes	Diesel	Average	3.00	6.00	84.0	0.37
Landscaping/Irrigation/Fencing	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Landscaping/Irrigation/Fencing	Off-Highway Trucks	Diesel	Average	1.00	6.00	376	0.38
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	6.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	6.00	36.0	0.38
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	2.00	6.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	6.00	46.0	0.45
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42

Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	4.00	6.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	4.00	6.00	46.0	0.31
Trenching (Utilities & Slab on Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Trenching (Utilities & Slab on Grade	Excavators	Diesel	Average	3.00	6.00	36.0	0.38
Trenching (Utilities & Slab on Grade	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40

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	Tier 4 Interim	1.00	6.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	6.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	6.00	84.0	0.37
Demolition	Excavators	Diesel	Tier 4 Interim	2.00	6.00	36.0	0.38
Site Preparation	Graders	Diesel	Tier 4 Interim	1.00	6.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	6.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	6.00	84.0	0.37
Site Preparation	Excavators	Diesel	Tier 4 Interim	1.00	6.00	36.0	0.38
Landscaping/Irrigation/Fencing	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	6.00	84.0	0.37
Landscaping/Irrigation/Fencing	Forklifts	Diesel	Tier 4 Interim	2.00	6.00	82.0	0.20

Landscaping/Irrigation/F	Off-Highway Trucks	Diesel	Tier 4 Interim	1.00	6.00	376	0.38
Grading	Graders	Diesel	Tier 4 Interim	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	6.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Interim	1.00	6.00	36.0	0.38
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Interim	2.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	2.00	6.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Interim	1.00	6.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Interim	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	6.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	4.00	6.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Tier 4 Interim	4.00	6.00	46.0	0.31
Trenching (Utilities & Slab on Grade	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	6.00	84.0	0.37
Trenching (Utilities & Slab on Grade	Excavators	Diesel	Tier 4 Interim	3.00	6.00	36.0	0.38
Trenching (Utilities & Slab on Grade	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	6.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix

Demolition	—	—	—	—
Demolition	Worker	15.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	10.9	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	15.0	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	68.2	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	43.9	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	6.52	8.40	HHDT,MHDT
Building Construction	Hauling	1.50	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	12.4	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	8.78	11.7	LDA,LDT1,LDT2

Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Landscaping/Irrigation/Fencing	—	—	—	—
Landscaping/Irrigation/Fencing	Worker	15.0	11.7	LDA,LDT1,LDT2
Landscaping/Irrigation/Fencing	Vendor	—	8.40	HHDT,MHDT
Landscaping/Irrigation/Fencing	Hauling	0.00	20.0	HHDT
Landscaping/Irrigation/Fencing	Onsite truck	—	—	HHDT
Trenching (Utilities & Slab on Grade	—	—	—	—
Trenching (Utilities & Slab on Grade	Worker	15.0	11.7	LDA,LDT1,LDT2
Trenching (Utilities & Slab on Grade	Vendor	—	8.40	HHDT,MHDT
Trenching (Utilities & Slab on Grade	Hauling	0.00	20.0	HHDT
Trenching (Utilities & Slab on Grade	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	10.9	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	15.0	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—

Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	68.2	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	43.9	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	6.52	8.40	HHDT,MHDT
Building Construction	Hauling	1.50	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	12.4	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	8.78	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Landscaping/Irrigation/Fencing	—	—	—	—
Landscaping/Irrigation/Fencing	Worker	15.0	11.7	LDA,LDT1,LDT2
Landscaping/Irrigation/Fencing	Vendor	—	8.40	HHDT,MHDT
Landscaping/Irrigation/Fencing	Hauling	0.00	20.0	HHDT
Landscaping/Irrigation/Fencing	Onsite truck	—	—	HHDT
Trenching (Utilities & Slab on Grade	—	—	—	—
Trenching (Utilities & Slab on Grade	Worker	15.0	11.7	LDA,LDT1,LDT2
Trenching (Utilities & Slab on Grade	Vendor	—	8.40	HHDT,MHDT

Trenching (Utilities & Slab on Grade	Hauling	0.00	20.0	HHDT
Trenching (Utilities & Slab on Grade	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	128,383	42,794	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	20,678	—
Site Preparation	—	—	17.3	0.00	—
Landscaping/Irrigation/Fencing	—	—	0.00	0.00	—
Grading	—	5,995	8.25	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Parking Lot	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	0.00	0.00	0.00
2026	0.00	0.00	0.00	0.00

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	12.4	annual days of extreme heat
Extreme Precipitation	6.40	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	0	0	0	N/A

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

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	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	1	1	1	2

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	13.6
AQ-PM	15.2
AQ-DPM	63.9
Drinking Water	43.7
Lead Risk Housing	60.0
Pesticides	28.1
Toxic Releases	31.3
Traffic	75.3
Effect Indicators	—
CleanUp Sites	89.3
Groundwater	91.0
Haz Waste Facilities/Generators	72.0
Impaired Water Bodies	23.9
Solid Waste	0.00

Sensitive Population	—
Asthma	1.87
Cardio-vascular	3.43
Low Birth Weights	5.41
Socioeconomic Factor Indicators	—
Education	5.50
Housing	1.62
Linguistic	57.4
Poverty	24.9
Unemployment	44.4

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	81.43205441
Employed	86.78301039
Median HI	94.55921981
Education	—
Bachelor's or higher	97.12562556
High school enrollment	100
Preschool enrollment	43.68022584
Transportation	—
Auto Access	77.83908636
Active commuting	84.11394842
Social	—
2-parent households	81.89400744

Voting	92.10830232
Neighborhood	—
Alcohol availability	67.49647119
Park access	81.35506224
Retail density	84.13961247
Supermarket access	49.50596689
Tree canopy	82.20197613
Housing	—
Homeownership	59.87424612
Housing habitability	78.15988708
Low-inc homeowner severe housing cost burden	96.95880919
Low-inc renter severe housing cost burden	74.68240729
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	81.62453484
Arthritis	0.0
Asthma ER Admissions	99.3
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	98.9
Cognitively Disabled	84.2
Physically Disabled	55.6
Heart Attack ER Admissions	94.8

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	25.8
English Speaking	41.6
Foreign-born	69.3
Outdoor Workers	72.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	64.5
Traffic Density	50.0
Traffic Access	66.9
Other Indices	—
Hardship	8.2
Other Decision Support	—
2016 Voting	92.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	10.0
Healthy Places Index Score for Project Location (b)	95.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Provided number of dwelling units, square footages (combined residential, office, and community space under residential), number of parking spaces, and total lot acreage from filled-out construction worksheet.
Construction: Construction Phases	Construction dates and phases provided by filled out worksheet.
Construction: Off-Road Equipment	Equipment quantity and hours provided by filled out construction worksheet from project applicant.
Construction: Trips and VMT	Demolition = 52 pavement demo truck trips (3.5 trips/day), Building Construction = 138 concrete truck round trips (1.5 trips/day), Paving = 31 asphalt truck round trips (12.4 trips/day).
Construction: On-Road Fugitive Dust	Air District required BMPs = 15 mph.
Construction: Dust From Material Movement	—

24-030 Buena Vista Redevelopment, Palo Alto Operational 2027 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-030 Buena Vista Redevelopment, Palo Alto Operational 2027
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.20
Precipitation (days)	18.8
Location	3980 El Camino Real, Palo Alto, CA 94306, USA
County	Santa Clara
City	Palo Alto
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1721
EDFZ	1
Electric Utility	City of Palo Alto
Gas Utility	City of Palo Alto Ultilities
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	61.0	Dwelling Unit	1.69	63,399	0.00	—	182	—

Parking Lot	79.0	Space	0.00	0.00	0.00	—	—	—
Mobile Home Park	44.0	Dwelling Unit	2.81	35,780	0.00	—	132	—
Parking Lot	58.0	Space	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	4.68	1.15	0.02	2.87	2.89	0.02	0.73	0.75	3,281
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	4.09	1.28	0.02	2.87	2.88	0.02	0.73	0.74	3,078
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	4.26	1.18	0.02	2.71	2.73	0.02	0.69	0.70	2,987
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.78	0.21	< 0.005	0.49	0.50	< 0.005	0.13	0.13	495

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—

Mobile	1.66	1.09	0.02	2.87	2.88	0.02	0.73	0.74	3,104
Area	3.03	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.0
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	14.1
Waste	—	—	—	—	—	—	—	—	146
Refrig.	—	—	—	—	—	—	—	—	0.71
Total	4.68	1.15	0.02	2.87	2.89	0.02	0.73	0.75	3,281
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	1.58	1.28	0.02	2.87	2.88	0.02	0.73	0.74	2,917
Area	2.51	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	14.1
Waste	—	—	—	—	—	—	—	—	146
Refrig.	—	—	—	—	—	—	—	—	0.71
Total	4.09	1.28	0.02	2.87	2.88	0.02	0.73	0.74	3,078
Average Daily	—	—	—	—	—	—	—	—	—
Mobile	1.50	1.15	0.02	2.71	2.73	0.02	0.69	0.70	2,818
Area	2.76	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.88
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Water	—	—	—	—	—	—	—	—	14.1
Waste	—	—	—	—	—	—	—	—	146
Refrig.	—	—	—	—	—	—	—	—	0.71
Total	4.26	1.18	0.02	2.71	2.73	0.02	0.69	0.70	2,987
Annual	—	—	—	—	—	—	—	—	—
Mobile	0.27	0.21	< 0.005	0.49	0.50	< 0.005	0.13	0.13	467
Area	0.50	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.30
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

Water	—	—	—	—	—	—	—	—	2.34
Waste	—	—	—	—	—	—	—	—	24.2
Refrig.	—	—	—	—	—	—	—	—	0.12
Total	0.78	0.21	< 0.005	0.49	0.50	< 0.005	0.13	0.13	495

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.00	0.66	0.01	1.72	1.73	0.01	0.44	0.45	1,867
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Home Park	0.66	0.43	0.01	1.14	1.15	0.01	0.29	0.30	1,237
Total	1.66	1.09	0.02	2.87	2.88	0.02	0.73	0.74	3,104
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.95	0.77	0.01	1.72	1.73	0.01	0.44	0.45	1,754
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Home Park	0.63	0.51	0.01	1.14	1.15	0.01	0.29	0.30	1,163
Total	1.58	1.28	0.02	2.87	2.88	0.02	0.73	0.74	2,917
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.16	0.13	< 0.005	0.30	0.30	< 0.005	0.07	0.08	279
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mobile Home Park	0.11	0.08	< 0.005	0.20	0.20	< 0.005	0.05	0.05	188
Total	0.27	0.21	< 0.005	0.49	0.50	< 0.005	0.13	0.13	467

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Mobile Home Park	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Mobile Home Park	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	0.00
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	0.00
Mobile Home Park	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Mobile Home Park	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Mobile Home Park	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Parking Lot	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Mobile Home Park	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

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

Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	2.12	—	—	—	—	—	—	—	—
Architectural Coatings	0.38	—	—	—	—	—	—	—	—
Landscape Equipment	0.52	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.0
Total	3.03	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	16.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	2.12	—	—	—	—	—	—	—	—
Architectural Coatings	0.38	—	—	—	—	—	—	—	—
Total	2.51	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	0.39	—	—	—	—	—	—	—	—
Architectural Coatings	0.07	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.30
Total	0.50	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.30

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	8.21
Parking Lot	—	—	—	—	—	—	—	—	0.00
Mobile Home Park	—	—	—	—	—	—	—	—	5.92
Total	—	—	—	—	—	—	—	—	14.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	8.21
Parking Lot	—	—	—	—	—	—	—	—	0.00
Mobile Home Park	—	—	—	—	—	—	—	—	5.92
Total	—	—	—	—	—	—	—	—	14.1
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	1.36
Parking Lot	—	—	—	—	—	—	—	—	0.00
Mobile Home Park	—	—	—	—	—	—	—	—	0.98
Total	—	—	—	—	—	—	—	—	2.34

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	84.9
Parking Lot	—	—	—	—	—	—	—	—	0.00

Mobile Home Park	—	—	—	—	—	—	—	—	61.6
Total	—	—	—	—	—	—	—	—	146
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	84.9
Parking Lot	—	—	—	—	—	—	—	—	0.00
Mobile Home Park	—	—	—	—	—	—	—	—	61.6
Total	—	—	—	—	—	—	—	—	146
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	14.1
Parking Lot	—	—	—	—	—	—	—	—	0.00
Mobile Home Park	—	—	—	—	—	—	—	—	10.2
Total	—	—	—	—	—	—	—	—	24.2

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.45
Mobile Home Park	—	—	—	—	—	—	—	—	0.26
Total	—	—	—	—	—	—	—	—	0.71
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.45

Mobile Home Park	—	—	—	—	—	—	—	—	0.26
Total	—	—	—	—	—	—	—	—	0.71
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.08
Mobile Home Park	—	—	—	—	—	—	—	—	0.04
Total	—	—	—	—	—	—	—	—	0.12

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	332	300	249	115,142	2,444	2,206	1,837	847,869
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Home Park	220	203	187	77,662	1,620	1,494	1,374	571,876
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

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

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
200837.47499999998	66,946	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	365,492	0.00	0.0000	0.0000	0.00
Parking Lot	0.00	0.00	0.0000	0.0000	0.00
Mobile Home Park	551,865	0.00	0.0000	0.0000	0.00
Parking Lot	0.00	0.00	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	2,212,250	0.00
Parking Lot	0.00	0.00
Mobile Home Park	1,595,722	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	45.0	—
Parking Lot	0.00	—
Mobile Home Park	32.6	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Mobile Home Park	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Mobile Home Park	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.4	annual days of extreme heat
Extreme Precipitation	6.40	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	0	0	0	N/A

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

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	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	1	1	1	2

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	13.6
AQ-PM	15.2
AQ-DPM	63.9
Drinking Water	43.7
Lead Risk Housing	60.0
Pesticides	28.1
Toxic Releases	31.3
Traffic	75.3
Effect Indicators	—
CleanUp Sites	89.3
Groundwater	91.0
Haz Waste Facilities/Generators	72.0
Impaired Water Bodies	23.9
Solid Waste	0.00
Sensitive Population	—
Asthma	1.87
Cardio-vascular	3.43
Low Birth Weights	5.41
Socioeconomic Factor Indicators	—
Education	5.50
Housing	1.62
Linguistic	57.4
Poverty	24.9
Unemployment	44.4

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	81.43205441
Employed	86.78301039
Median HI	94.55921981
Education	—
Bachelor's or higher	97.12562556
High school enrollment	100
Preschool enrollment	43.68022584
Transportation	—
Auto Access	77.83908636
Active commuting	84.11394842
Social	—
2-parent households	81.89400744
Voting	92.10830232
Neighborhood	—
Alcohol availability	67.49647119
Park access	81.35506224
Retail density	84.13961247
Supermarket access	49.50596689
Tree canopy	82.20197613
Housing	—
Homeownership	59.87424612
Housing habitability	78.15988708
Low-inc homeowner severe housing cost burden	96.95880919

Low-inc renter severe housing cost burden	74.68240729
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	81.62453484
Arthritis	0.0
Asthma ER Admissions	99.3
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	98.9
Cognitively Disabled	84.2
Physically Disabled	55.6
Heart Attack ER Admissions	94.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—

Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	25.8
English Speaking	41.6
Foreign-born	69.3
Outdoor Workers	72.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	64.5
Traffic Density	50.0
Traffic Access	66.9
Other Indices	—
Hardship	8.2
Other Decision Support	—
2016 Voting	92.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	10.0
Healthy Places Index Score for Project Location (b)	95.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Provided square footages, number of parking spaces, and total lot acreages provided by filled-out construction worksheets.
Operations: Hearths	No hearths.
Operations: Energy Use	Project design is all-electric. Confirmed no natural gas. Convert natural gas to electricity.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.

24-030 Buena Vista Redevelopment, Palo Alto Mobile Homes BMPs T4f HRA Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-030 Buena Vista Redevelopment, Palo Alto Mobile Homes BMPs T4f HRA
Construction Start Date	2/1/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.20
Precipitation (days)	18.8
Location	3980 El Camino Real, Palo Alto, CA 94306, USA
County	Santa Clara
City	Palo Alto
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1721
EDFZ	1
Electric Utility	City of Palo Alto
Gas Utility	City of Palo Alto Ultilities
App Version	2022.1.1.22

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
Mobile Home Park	44.0	Dwelling Unit	2.81	35,780	0.00	—	132	—

Parking Lot	58.0	Space	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	23.8	12.8	0.54	2.11	2.65	0.50	1.01	1.51	2,364
Mit.	23.3	4.20	0.07	2.11	2.15	0.06	1.01	1.05	2,364
% Reduced	2%	67%	87%	—	19%	87%	—	30%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	1.22	11.2	0.43	1.08	1.51	0.40	0.16	0.56	1,939
Mit.	0.25	2.88	0.04	1.08	1.11	0.04	0.16	0.20	1,939
% Reduced	79%	74%	92%	—	26%	91%	—	65%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	2.03	5.82	0.24	0.50	0.74	0.22	0.20	0.42	1,134
Mit.	1.53	1.28	0.02	0.50	0.52	0.02	0.20	0.22	1,134
% Reduced	25%	78%	90%	—	29%	89%	—	47%	—
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.37	1.06	0.04	0.09	0.14	0.04	0.04	0.08	188

Mit.	0.28	0.23	< 0.005	0.09	0.10	< 0.005	0.04	0.04	188
% Reduced	25%	78%	90%	—	29%	89%	—	47%	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2025	23.8	12.8	0.54	2.11	2.65	0.50	1.01	1.51	2,364
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2025	1.22	11.2	0.43	1.08	1.51	0.40	0.16	0.56	1,939
Average Daily	—	—	—	—	—	—	—	—	—
2025	2.03	5.82	0.24	0.50	0.74	0.22	0.20	0.42	1,134
Annual	—	—	—	—	—	—	—	—	—
2025	0.37	1.06	0.04	0.09	0.14	0.04	0.04	0.08	188

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2025	23.3	4.20	0.07	2.11	2.15	0.06	1.01	1.05	2,364
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2025	0.25	2.88	0.04	1.08	1.11	0.04	0.16	0.20	1,939
Average Daily	—	—	—	—	—	—	—	—	—
2025	1.53	1.28	0.02	0.50	0.52	0.02	0.20	0.22	1,134

Annual	—	—	—	—	—	—	—	—	—
2025	0.28	0.23	< 0.005	0.09	0.10	< 0.005	0.04	0.04	188

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.17	10.9	0.43	—	0.43	0.40	—	0.40	1,871
Demolition	—	—	—	1.07	1.07	—	0.16	0.16	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.22	0.05	—	0.05	0.04	—	0.04	210
Demolition	—	—	—	0.12	0.12	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.22	0.01	—	0.01	0.01	—	0.01	34.8
Demolition	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.28	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	60.1
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.72
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.11

3.2. Demolition (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	2.59	0.03	—	0.03	0.03	—	0.03	1,871
Demolition	—	—	—	1.07	1.07	—	0.16	0.16	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.29	< 0.005	—	< 0.005	< 0.005	—	< 0.005	210
Demolition	—	—	—	0.12	0.12	—	0.02	0.02	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	34.8
Demolition	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.28	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	60.1
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.72
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.11

3.3. Site Preparation (2025) - Unmitigated

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

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

Off-Road Equipment	1.31	12.2	0.54	—	0.54	0.50	—	0.50	2,227
Dust From Material Movement	—	—	—	2.07	2.07	—	1.00	1.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.47	0.07	—	0.07	0.06	—	0.06	268
Dust From Material Movement	—	—	—	0.25	0.25	—	0.12	0.12	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.27	0.01	—	0.01	0.01	—	0.01	44.4
Dust From Material Movement	—	—	—	0.05	0.05	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.37
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.97
Vendor	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
Annual	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.16
Vendor	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

3.4. Site Preparation (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	1.53	0.04	—	0.04	0.04	—	0.04	2,227
Dust From Material Movement	—	—	—	2.07	2.07	—	1.00	1.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.18	0.01	—	0.01	0.01	—	0.01	268
Dust From Material Movement	—	—	—	0.25	0.25	—	0.12	0.12	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	44.4
Dust From Material Movement	—	—	—	0.05	0.05	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.37
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.97
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.16
Vendor	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

3.5. Landscaping/Irrigation/Fencing (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69	5.64	0.23	—	0.23	0.21	—	0.21	1,888
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.07	0.57	0.02	—	0.02	0.02	—	0.02	191
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	< 0.005	—	< 0.005	< 0.005	—	< 0.005	31.7
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.15
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.82
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.14
Vendor	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

3.6. Landscaping/Irrigation/Fencing (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.92	0.04	—	0.04	0.04	—	0.04	1,888
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.09	< 0.005	—	< 0.005	< 0.005	—	< 0.005	191
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	31.7
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.15
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.82
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.14
Vendor	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

3.7. Grading (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.31	12.2	0.54	—	0.54	0.50	—	0.50	2,227
Dust From Material Movement	—	—	—	2.08	2.08	—	1.00	1.00	—
Onsite truck	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	0.08	0.74	0.03	—	0.03	0.03	—	0.03	134
Dust From Material Movement	—	—	—	0.13	0.13	—	0.06	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.01	—	0.01	0.01	—	0.01	22.2

Dust From Material Movement	—	—	—	0.02	0.02	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.57	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	128
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.76
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.29

3.8. Grading (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	1.53	0.04	—	0.04	0.04	—	0.04	2,227
Dust From Material Movement	—	—	—	2.08	2.08	—	1.00	1.00	—

Onsite truck	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	0.01	0.09	< 0.005	—	< 0.005	< 0.005	—	< 0.005	134
Dust From Material Movement	—	—	—	0.13	0.13	—	0.06	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22.2
Dust From Material Movement	—	—	—	0.02	0.02	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.57	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	128
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.76
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.29

3.9. Building Construction (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	3.86	0.17	—	0.17	0.15	—	0.15	657
Onsite truck	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	0.03	0.23	0.01	—	0.01	0.01	—	0.01	39.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.55
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.09	0.02	0.00	0.01	0.01	0.00	< 0.005	< 0.005	17.7
Vendor	< 0.005	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	12.8
Hauling	0.01	0.21	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	47.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.03
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.77
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.89

Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.13
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.48

3.10. Building Construction (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	2.11	0.06	—	0.06	0.05	—	0.05	657
Onsite truck	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	0.01	0.13	< 0.005	—	< 0.005	< 0.005	—	< 0.005	39.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.55
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.09	0.02	0.00	0.01	0.01	0.00	< 0.005	< 0.005	17.7
Vendor	< 0.005	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	12.8
Hauling	0.01	0.21	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	47.8

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.03
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.77
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.89
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.13
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.48

3.11. Paving (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	5.23	0.23	—	0.23	0.21	—	0.21	1,118
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	< 0.005	—	< 0.005	< 0.005	—	< 0.005	18.4
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.04

Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.34	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	72.4
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.18
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.20

3.12. Paving (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.44	0.02	—	0.02	0.02	—	0.02	1,118
Paving	0.00	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	18.4
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.04
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.34	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	72.4
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.18
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.20

3.13. Architectural Coating (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	3.07	0.09	—	0.09	0.09	—	0.09	586
Architectural Coatings	22.9	—	—	—	—	—	—	—	—
Onsite truck	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	0.02	0.19	0.01	—	0.01	0.01	—	0.01	35.3
Architectural Coatings	1.38	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.84
Architectural Coatings	0.25	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.54
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.21
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.03
Vendor	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

3.14. Architectural Coating (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	1.80	0.01	—	0.01	0.01	—	0.01	586
Architectural Coatings	22.9	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	0.11	< 0.005	—	< 0.005	< 0.005	—	< 0.005	35.3
Architectural Coatings	1.38	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.84

Architectural Coatings	0.25	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.54
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.21
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.03
Vendor	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

3.15. Trenching (Utilities) (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10	10.3	0.42	—	0.42	0.39	—	0.39	1,794
Onsite truck	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	0.13	1.22	0.05	—	0.05	0.05	—	0.05	211
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.22	0.01	—	0.01	0.01	—	0.01	35.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.37
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.95
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.16
Vendor	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

3.16. Trenching (Utilities) (2025) - Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	2.21	0.03	—	0.03	0.03	—	0.03	1,794
Onsite truck	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	0.02	0.26	< 0.005	—	< 0.005	< 0.005	—	< 0.005	211
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	35.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.37
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.95
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.16
Vendor	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

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description

Demolition	Demolition	2/1/2025	3/31/2025	5.00	41.0	—
Site Preparation	Site Preparation	7/1/2025	8/30/2025	5.00	44.0	—
Landscaping/Irrigation/Fencing	Site Preparation	10/9/2025	11/30/2025	5.00	37.0	—
Grading	Grading	4/1/2025	4/30/2025	5.00	22.0	—
Building Construction	Building Construction	9/1/2025	9/30/2025	5.00	22.0	—
Paving	Paving	10/1/2025	10/8/2025	5.00	6.00	—
Architectural Coating	Architectural Coating	9/1/2025	9/30/2025	5.00	22.0	—
Trenching (Utilities)	Trenching	5/1/2025	6/30/2025	5.00	43.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	6.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Demolition	Excavators	Diesel	Average	2.00	6.00	36.0	0.38
Site Preparation	Graders	Diesel	Average	1.00	6.00	148	0.41
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	3.00	6.00	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Site Preparation	Excavators	Diesel	Average	1.00	6.00	36.0	0.38
Landscaping/Irrigation/Fencing	Tractors/Loaders/Backhoes	Diesel	Average	3.00	6.00	84.0	0.37
Landscaping/Irrigation/Fencing	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20

Landscaping/Irrigation/Fencing	Off-Highway Trucks	Diesel	Average	1.00	6.00	376	0.38
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	6.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	6.00	36.0	0.38
Building Construction	Forklifts	Diesel	Average	3.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	2.00	6.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	6.00	46.0	0.45
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	2.00	6.00	46.0	0.31
Architectural Coating	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Trenching (Utilities)	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Trenching (Utilities)	Excavators	Diesel	Average	3.00	6.00	36.0	0.38
Trenching (Utilities)	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40

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	Tier 4 Final	1.00	6.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	6.00	367	0.40

Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	6.00	84.0	0.37
Demolition	Excavators	Diesel	Tier 4 Final	2.00	6.00	36.0	0.38
Site Preparation	Graders	Diesel	Tier 4 Final	1.00	6.00	148	0.41
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	6.00	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	6.00	367	0.40
Site Preparation	Excavators	Diesel	Tier 4 Final	1.00	6.00	36.0	0.38
Landscaping/Irrigation/Fencing	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	6.00	84.0	0.37
Landscaping/Irrigation/Fencing	Forklifts	Diesel	Tier 4 Final	2.00	6.00	82.0	0.20
Landscaping/Irrigation/Fencing	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	6.00	376	0.38
Grading	Graders	Diesel	Tier 4 Final	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	6.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Final	1.00	6.00	36.0	0.38
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	2.00	6.00	14.0	0.74
Building Construction	Welders	Diesel	Tier 4 Final	1.00	6.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Final	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	6.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Tier 4 Final	2.00	6.00	46.0	0.31
Architectural Coating	Forklifts	Diesel	Tier 4 Final	2.00	6.00	82.0	0.20

Trenching (Utilities)	Tractors/Loaders/Backh	Diesel	Tier 4 Final	2.00	6.00	84.0	0.37
Trenching (Utilities)	Excavators	Diesel	Tier 4 Final	3.00	6.00	36.0	0.38
Trenching (Utilities)	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	6.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	0.50	LDA,LDT1,LDT2
Demolition	Vendor	—	0.50	HHDT,MHDT
Demolition	Hauling	16.6	0.50	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	15.0	0.50	LDA,LDT1,LDT2
Site Preparation	Vendor	—	0.50	HHDT,MHDT
Site Preparation	Hauling	0.00	0.50	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	0.50	LDA,LDT1,LDT2
Grading	Vendor	—	0.50	HHDT,MHDT
Grading	Hauling	35.8	0.50	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	31.7	0.50	LDA,LDT1,LDT2
Building Construction	Vendor	4.70	0.50	HHDT,MHDT
Building Construction	Hauling	13.3	0.50	HHDT

Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	0.50	LDA,LDT1,LDT2
Paving	Vendor	—	0.50	HHDT,MHDT
Paving	Hauling	20.0	0.50	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.34	0.50	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.50	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching (Utilities)	—	—	—	—
Trenching (Utilities)	Worker	15.0	0.50	LDA,LDT1,LDT2
Trenching (Utilities)	Vendor	—	0.50	HHDT,MHDT
Trenching (Utilities)	Hauling	0.00	0.50	HHDT
Trenching (Utilities)	Onsite truck	—	—	HHDT
Landscaping/Irrigation/Fencing	—	—	—	—
Landscaping/Irrigation/Fencing	Worker	15.0	0.50	LDA,LDT1,LDT2
Landscaping/Irrigation/Fencing	Vendor	—	0.50	HHDT,MHDT
Landscaping/Irrigation/Fencing	Hauling	0.00	0.50	HHDT
Landscaping/Irrigation/Fencing	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	0.50	LDA,LDT1,LDT2
Demolition	Vendor	—	0.50	HHDT,MHDT

Demolition	Hauling	16.6	0.50	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	15.0	0.50	LDA,LDT1,LDT2
Site Preparation	Vendor	—	0.50	HHDT,MHDT
Site Preparation	Hauling	0.00	0.50	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	0.50	LDA,LDT1,LDT2
Grading	Vendor	—	0.50	HHDT,MHDT
Grading	Hauling	35.8	0.50	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	31.7	0.50	LDA,LDT1,LDT2
Building Construction	Vendor	4.70	0.50	HHDT,MHDT
Building Construction	Hauling	13.3	0.50	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	0.50	LDA,LDT1,LDT2
Paving	Vendor	—	0.50	HHDT,MHDT
Paving	Hauling	20.0	0.50	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.34	0.50	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.50	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

Trenching (Utilities)	—	—	—	—
Trenching (Utilities)	Worker	15.0	0.50	LDA,LDT1,LDT2
Trenching (Utilities)	Vendor	—	0.50	HHDT,MHDT
Trenching (Utilities)	Hauling	0.00	0.50	HHDT
Trenching (Utilities)	Onsite truck	—	—	HHDT
Landscaping/Irrigation/Fencing	—	—	—	—
Landscaping/Irrigation/Fencing	Worker	15.0	0.50	LDA,LDT1,LDT2
Landscaping/Irrigation/Fencing	Vendor	—	0.50	HHDT,MHDT
Landscaping/Irrigation/Fencing	Hauling	0.00	0.50	HHDT
Landscaping/Irrigation/Fencing	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	72,455	24,152	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	41,564	—
Site Preparation	—	—	33.0	0.00	—
Landscaping/Irrigation/Fencing	—	—	0.00	0.00	—

Grading	—	6,290	16.5	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Mobile Home Park	—	0%
Parking Lot	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	0.00	0.00	0.00

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	12.4	annual days of extreme heat
Extreme Precipitation	6.40	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	0	0	0	N/A

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

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	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	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	13.6
AQ-PM	15.2
AQ-DPM	63.9
Drinking Water	43.7
Lead Risk Housing	60.0
Pesticides	28.1
Toxic Releases	31.3
Traffic	75.3
Effect Indicators	—
CleanUp Sites	89.3

Groundwater	91.0
Haz Waste Facilities/Generators	72.0
Impaired Water Bodies	23.9
Solid Waste	0.00
Sensitive Population	—
Asthma	1.87
Cardio-vascular	3.43
Low Birth Weights	5.41
Socioeconomic Factor Indicators	—
Education	5.50
Housing	1.62
Linguistic	57.4
Poverty	24.9
Unemployment	44.4

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	81.43205441
Employed	86.78301039
Median HI	94.55921981
Education	—
Bachelor's or higher	97.12562556
High school enrollment	100
Preschool enrollment	43.68022584
Transportation	—

Auto Access	77.83908636
Active commuting	84.11394842
Social	—
2-parent households	81.89400744
Voting	92.10830232
Neighborhood	—
Alcohol availability	67.49647119
Park access	81.35506224
Retail density	84.13961247
Supermarket access	49.50596689
Tree canopy	82.20197613
Housing	—
Homeownership	59.87424612
Housing habitability	78.15988708
Low-inc homeowner severe housing cost burden	96.95880919
Low-inc renter severe housing cost burden	74.68240729
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	81.62453484
Arthritis	0.0
Asthma ER Admissions	99.3
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0

Life Expectancy at Birth	98.9
Cognitively Disabled	84.2
Physically Disabled	55.6
Heart Attack ER Admissions	94.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	25.8
English Speaking	41.6
Foreign-born	69.3
Outdoor Workers	72.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	64.5
Traffic Density	50.0
Traffic Access	66.9
Other Indices	—

Hardship	8.2
Other Decision Support	—
2016 Voting	92.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	10.0
Healthy Places Index Score for Project Location (b)	95.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Total number of dwelling units, square footage (residential + office combined as residential), and number of parking spaces provided by filled out construction worksheet.
Construction: Construction Phases	Provided construction dates from filled-out construction worksheet.
Construction: Off-Road Equipment	Provided equipment quantity and hours from filled out construction worksheet.

Construction: Trips and VMT	Demolition = 99 hauling truck round trips (4.95 trips/day), Mobile Home Building Construction = 133 concrete truck round trips (13.3 trips/day), Paving = 50 asphalt truck round trips (20 trips/day). HRA = 0.5 Mile trip length for localized emissions.
Construction: On-Road Fugitive Dust	Air District Required BMPs = 15 mph.
Operations: Hearths	No hearths.
Operations: Energy Use	Project design is all-electric. Confirmed no natural gas. Convert natural gas to electricity.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.

24-030 Buena Vista Redevelopment, Palo Alto Apartments BMPs T4f HRA Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24-030 Buena Vista Redevelopment, Palo Alto Apartments BMPs T4f HRA
Construction Start Date	5/1/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.20
Precipitation (days)	18.8
Location	3980 El Camino Real, Palo Alto, CA 94306, USA
County	Santa Clara
City	Palo Alto
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1721
EDFZ	1
Electric Utility	City of Palo Alto
Gas Utility	City of Palo Alto Ultilities
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	61.0	Dwelling Unit	1.69	63,399	0.00	—	182	—

Parking Lot	79.0	Space	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	10.7	24.4	0.98	2.82	3.80	0.90	1.12	2.02	4,399
Mit.	8.79	7.85	0.09	2.82	2.90	0.09	1.12	1.20	4,399
% Reduced	18%	68%	90%	—	24%	90%	—	41%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	9.74	13.1	0.39	0.02	0.41	0.36	0.01	0.36	2,755
Mit.	8.79	7.43	0.09	0.02	0.12	0.09	0.01	0.10	2,755
% Reduced	10%	43%	76%	—	72%	75%	—	74%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	3.09	5.39	0.19	0.14	0.32	0.17	0.07	0.23	1,187
Mit.	2.68	2.54	0.04	0.14	0.18	0.04	0.07	0.10	1,187
% Reduced	13%	53%	80%	—	44%	79%	—	56%	—
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.56	0.98	0.03	0.03	0.06	0.03	0.01	0.04	197

Mit.	0.49	0.46	0.01	0.03	0.03	0.01	0.01	0.02	197
% Reduced	13%	53%	80%	—	44%	79%	—	56%	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2025	2.61	24.4	0.98	2.82	3.80	0.90	1.12	2.02	4,399
2026	10.7	22.0	0.80	2.09	2.89	0.74	1.01	1.74	4,390
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2025	0.97	7.84	0.31	0.02	0.33	0.29	< 0.005	0.29	1,772
2026	9.74	13.1	0.39	0.02	0.41	0.36	0.01	0.36	2,755
Average Daily	—	—	—	—	—	—	—	—	—
2025	0.53	4.65	0.19	0.13	0.32	0.17	0.04	0.21	888
2026	3.09	5.39	0.18	0.14	0.32	0.16	0.07	0.23	1,187
Annual	—	—	—	—	—	—	—	—	—
2025	0.10	0.85	0.03	0.02	0.06	0.03	0.01	0.04	147
2026	0.56	0.98	0.03	0.03	0.06	0.03	0.01	0.04	197

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2025	0.55	5.41	0.08	2.82	2.90	0.08	1.12	1.20	4,399
2026	8.79	7.85	0.09	2.09	2.17	0.09	1.01	1.09	4,390

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2025	0.43	2.78	0.08	0.02	0.10	0.07	< 0.005	0.08	1,772
2026	8.79	7.43	0.09	0.02	0.12	0.09	0.01	0.10	2,755
Average Daily	—	—	—	—	—	—	—	—	—
2025	0.15	1.22	0.02	0.13	0.15	0.02	0.04	0.06	888
2026	2.68	2.54	0.04	0.14	0.18	0.04	0.07	0.10	1,187
Annual	—	—	—	—	—	—	—	—	—
2025	0.03	0.22	< 0.005	0.02	0.03	< 0.005	0.01	0.01	147
2026	0.49	0.46	0.01	0.03	0.03	0.01	0.01	0.02	197

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.17	10.9	0.43	—	0.43	0.40	—	0.40	1,871
Demolition	—	—	—	0.68	0.68	—	0.10	0.10	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.95	0.04	—	0.04	0.03	—	0.03	164
Demolition	—	—	—	0.06	0.06	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.01	—	0.01	0.01	—	0.01	27.2
Demolition	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.17	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	39.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.44
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.57

3.2. Demolition (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	2.59	0.03	—	0.03	0.03	—	0.03	1,871

Demolition	—	—	—	0.68	0.68	—	0.10	0.10	—
Onsite truck	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	0.02	0.23	< 0.005	—	< 0.005	< 0.005	—	< 0.005	164
Demolition	—	—	—	0.06	0.06	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	27.2
Demolition	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.17	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	39.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.44
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.57

3.3. Site Preparation (2026) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	11.2	0.48	—	0.48	0.45	—	0.45	2,227
Dust From Material Movement	—	—	—	2.07	2.07	—	1.00	1.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.71	0.03	—	0.03	0.03	—	0.03	140
Dust From Material Movement	—	—	—	0.13	0.13	—	0.06	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.01	—	0.01	0.01	—	0.01	23.2
Dust From Material Movement	—	—	—	0.02	0.02	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.21
Vendor	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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.50
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.08
Vendor	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

3.4. Site Preparation (2026) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	1.53	0.04	—	0.04	0.04	—	0.04	2,227
Dust From Material Movement	—	—	—	2.07	2.07	—	1.00	1.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	< 0.005	—	< 0.005	< 0.005	—	< 0.005	140
Dust From Material Movement	—	—	—	0.13	0.13	—	0.06	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	23.2
Dust From Material Movement	—	—	—	0.02	0.02	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.21
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.50
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.08
Vendor	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

3.5. Landscaping/Irrigation/Fencing (2026) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	5.25	0.19	—	0.19	0.18	—	0.18	1,889

Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.30	0.01	—	0.01	0.01	—	0.01	109
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	18.0
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.21
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.46
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.08
Vendor	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

3.6. Landscaping/Irrigation/Fencing (2026) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.92	0.04	—	0.04	0.04	—	0.04	1,889
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	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	0.01	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	109
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	18.0
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.21

Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.46
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.08
Vendor	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

3.7. Grading (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.31	12.2	0.54	—	0.54	0.50	—	0.50	2,227
Dust From Material Movement	—	—	—	2.09	2.09	—	1.01	1.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.37	0.02	—	0.02	0.02	—	0.02	67.1
Dust From Material Movement	—	—	—	0.06	0.06	—	0.03	0.03	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.1
Dust From Material Movement	—	—	—	0.01	0.01	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	1.09	< 0.005	0.03	0.03	< 0.005	0.01	0.01	245
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.24
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.40
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.22

3.8. Grading (2025) - Mitigated

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

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

Off-Road Equipment	0.22	1.53	0.04	—	0.04	0.04	—	0.04	2,227
Dust From Material Movement	—	—	—	2.09	2.09	—	1.01	1.01	—
Onsite truck	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	0.01	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	67.1
Dust From Material Movement	—	—	—	0.06	0.06	—	0.03	0.03	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	11.1
Dust From Material Movement	—	—	—	0.01	0.01	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	1.09	< 0.005	0.03	0.03	< 0.005	0.01	0.01	245
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.24
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.40
Annual	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.22

3.9. Building Construction (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	7.70	0.31	—	0.31	0.29	—	0.29	1,724
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.39	0.06	—	0.06	0.05	—	0.05	310
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.25	0.01	—	0.01	0.01	—	0.01	51.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.12	0.04	0.00	0.02	0.02	0.00	< 0.005	< 0.005	23.9
Vendor	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.8
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.43

Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.25
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.20
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.97
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.70
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.53
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.16

3.10. Building Construction (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	2.64	0.08	—	0.08	0.07	—	0.07	1,724
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.47	0.01	—	0.01	0.01	—	0.01	310
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	< 0.005	—	< 0.005	< 0.005	—	< 0.005	51.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.12	0.04	0.00	0.02	0.02	0.00	< 0.005	< 0.005	23.9
Vendor	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.8
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.43
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.25
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.20
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.97
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.70
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.53
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.16

3.11. Building Construction (2026) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81	7.31	0.28	—	0.28	0.26	—	0.26	1,724
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81	7.31	0.28	—	0.28	0.26	—	0.26	1,724
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.29	2.59	0.10	—	0.10	0.09	—	0.09	611
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.47	0.02	—	0.02	0.02	—	0.02	101
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.12	0.03	0.00	0.02	0.02	0.00	< 0.005	< 0.005	24.1
Vendor	< 0.005	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.5
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.30
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.11	0.03	0.00	0.02	0.02	0.00	< 0.005	< 0.005	23.4
Vendor	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.6
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.33
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.21
Vendor	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.21
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.88
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.36
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.03
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.31

3.12. Building Construction (2026) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	2.63	0.08	—	0.08	0.07	—	0.07	1,724
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	2.63	0.08	—	0.08	0.07	—	0.07	1,724
Onsite truck	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	0.93	0.03	—	0.03	0.03	—	0.03	611
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	< 0.005	—	< 0.005	< 0.005	—	< 0.005	101
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.12	0.03	0.00	0.02	0.02	0.00	< 0.005	< 0.005	24.1
Vendor	< 0.005	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.5
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.30
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.11	0.03	0.00	0.02	0.02	0.00	< 0.005	< 0.005	23.4
Vendor	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.6
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.33
Average Daily	—	—	—	—	—	—	—	—	—

Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.21
Vendor	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.21
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.88
Annual	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.36
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.03
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.31

3.13. Paving (2026) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.97	0.21	—	0.21	0.19	—	0.19	1,118
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	0.01	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	15.3
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.54
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.20	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	43.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.60
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10

3.14. Paving (2026) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.44	0.02	—	0.02	0.02	—	0.02	1,118
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	15.3
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.54
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.20	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	43.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.60
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10

3.15. Architectural Coating (2026) - Unmitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	5.59	0.11	—	0.11	0.10	—	0.10	980
Architectural Coatings	8.19	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	5.59	0.11	—	0.11	0.10	—	0.10	980
Architectural Coatings	8.19	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.67	0.03	—	0.03	0.03	—	0.03	293
Architectural Coatings	2.45	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.30	0.01	—	0.01	0.01	—	0.01	48.5
Architectural Coatings	0.45	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.81
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.68
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.38
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.23
Vendor	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

3.16. Architectural Coating (2026) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	4.66	0.02	—	0.02	0.02	—	0.02	980
Architectural Coatings	8.19	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	4.66	0.02	—	0.02	0.02	—	0.02	980

Architectural Coatings	8.19	—	—	—	—	—	—	—	—
Onsite truck	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	1.39	0.01	—	0.01	0.01	—	0.01	293
Architectural Coatings	2.45	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.25	< 0.005	—	< 0.005	< 0.005	—	< 0.005	48.5
Architectural Coatings	0.45	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.81
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.68
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.38
Vendor	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
Annual	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.23
Vendor	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

3.17. Trenching (Utilities & Slab on Grade (2025) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10	10.3	0.42	—	0.42	0.39	—	0.39	1,794
Onsite truck	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	0.20	1.87	0.08	—	0.08	0.07	—	0.07	324
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.34	0.01	—	0.01	0.01	—	0.01	53.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.37
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.46
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.24
Vendor	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

3.18. Trenching (Utilities & Slab on Grade (2025) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	2.21	0.03	—	0.03	0.03	—	0.03	1,794
Onsite truck	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	0.03	0.40	0.01	—	0.01	0.01	—	0.01	324
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	53.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.37
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.46
Vendor	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
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.24
Vendor	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

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

Total	—	—	—	—	—	—	—	—	—

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	5/1/2025	6/15/2025	5.00	32.0	—
Site Preparation	Site Preparation	7/1/2026	7/31/2026	5.00	23.0	—
Landscaping/Irrigation/Fencing	Site Preparation	8/1/2026	8/31/2026	5.00	21.0	—
Grading	Grading	6/15/2025	6/30/2025	5.00	11.0	—
Building Construction	Building Construction	10/1/2025	6/30/2026	5.00	195	—
Paving	Paving	7/25/2026	7/31/2026	5.00	5.00	—
Architectural Coating	Architectural Coating	3/1/2026	7/30/2026	5.00	109	—
Trenching (Utilities & Slab on Grade	Trenching	7/1/2025	9/30/2025	5.00	66.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	6.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Demolition	Excavators	Diesel	Average	2.00	6.00	36.0	0.38
Site Preparation	Graders	Diesel	Average	1.00	6.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	3.00	6.00	84.0	0.37
Site Preparation	Excavators	Diesel	Average	1.00	6.00	36.0	0.38
Landscaping/Irrigation/Fencing	Tractors/Loaders/Backhoes	Diesel	Average	3.00	6.00	84.0	0.37
Landscaping/Irrigation/Fencing	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Landscaping/Irrigation/Fencing	Off-Highway Trucks	Diesel	Average	1.00	6.00	376	0.38
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	6.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	6.00	36.0	0.38
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	2.00	6.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	6.00	46.0	0.45
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42

Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	4.00	6.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	4.00	6.00	46.0	0.31
Trenching (Utilities & Slab on Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Trenching (Utilities & Slab on Grade	Excavators	Diesel	Average	3.00	6.00	36.0	0.38
Trenching (Utilities & Slab on Grade	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40

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	Tier 4 Final	1.00	6.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	6.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	6.00	84.0	0.37
Demolition	Excavators	Diesel	Tier 4 Final	2.00	6.00	36.0	0.38
Site Preparation	Graders	Diesel	Tier 4 Final	1.00	6.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	6.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	6.00	84.0	0.37
Site Preparation	Excavators	Diesel	Tier 4 Final	1.00	6.00	36.0	0.38
Landscaping/Irrigation/Fencing	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	6.00	84.0	0.37
Landscaping/Irrigation/Fencing	Forklifts	Diesel	Tier 4 Final	2.00	6.00	82.0	0.20

Landscaping/Irrigation/F	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	6.00	376	0.38
Grading	Graders	Diesel	Tier 4 Final	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	6.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Final	1.00	6.00	36.0	0.38
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	2.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	2.00	6.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	1.00	6.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Final	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	6.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	4.00	6.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Tier 4 Final	4.00	6.00	46.0	0.31
Trenching (Utilities & Slab on Grade	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	6.00	84.0	0.37
Trenching (Utilities & Slab on Grade	Excavators	Diesel	Tier 4 Final	3.00	6.00	36.0	0.38
Trenching (Utilities & Slab on Grade	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	6.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix

Demolition	—	—	—	—
Demolition	Worker	15.0	0.50	LDA,LDT1,LDT2
Demolition	Vendor	—	0.50	HHDT,MHDT
Demolition	Hauling	10.9	0.50	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	15.0	0.50	LDA,LDT1,LDT2
Site Preparation	Vendor	—	0.50	HHDT,MHDT
Site Preparation	Hauling	0.00	0.50	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	0.50	LDA,LDT1,LDT2
Grading	Vendor	—	0.50	HHDT,MHDT
Grading	Hauling	68.2	0.50	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	43.9	0.50	LDA,LDT1,LDT2
Building Construction	Vendor	6.52	0.50	HHDT,MHDT
Building Construction	Hauling	1.50	0.50	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	0.50	LDA,LDT1,LDT2
Paving	Vendor	—	0.50	HHDT,MHDT
Paving	Hauling	12.4	0.50	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	8.78	0.50	LDA,LDT1,LDT2

Architectural Coating	Vendor	—	0.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.50	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Landscaping/Irrigation/Fencing	—	—	—	—
Landscaping/Irrigation/Fencing	Worker	15.0	0.50	LDA,LDT1,LDT2
Landscaping/Irrigation/Fencing	Vendor	—	0.50	HHDT,MHDT
Landscaping/Irrigation/Fencing	Hauling	0.00	0.50	HHDT
Landscaping/Irrigation/Fencing	Onsite truck	—	—	HHDT
Trenching (Utilities & Slab on Grade	—	—	—	—
Trenching (Utilities & Slab on Grade	Worker	15.0	0.50	LDA,LDT1,LDT2
Trenching (Utilities & Slab on Grade	Vendor	—	0.50	HHDT,MHDT
Trenching (Utilities & Slab on Grade	Hauling	0.00	0.50	HHDT
Trenching (Utilities & Slab on Grade	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	0.50	LDA,LDT1,LDT2
Demolition	Vendor	—	0.50	HHDT,MHDT
Demolition	Hauling	10.9	0.50	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	15.0	0.50	LDA,LDT1,LDT2
Site Preparation	Vendor	—	0.50	HHDT,MHDT
Site Preparation	Hauling	0.00	0.50	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—

Grading	Worker	15.0	0.50	LDA,LDT1,LDT2
Grading	Vendor	—	0.50	HHDT,MHDT
Grading	Hauling	68.2	0.50	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	43.9	0.50	LDA,LDT1,LDT2
Building Construction	Vendor	6.52	0.50	HHDT,MHDT
Building Construction	Hauling	1.50	0.50	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	0.50	LDA,LDT1,LDT2
Paving	Vendor	—	0.50	HHDT,MHDT
Paving	Hauling	12.4	0.50	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	8.78	0.50	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.50	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Landscaping/Irrigation/Fencing	—	—	—	—
Landscaping/Irrigation/Fencing	Worker	15.0	0.50	LDA,LDT1,LDT2
Landscaping/Irrigation/Fencing	Vendor	—	0.50	HHDT,MHDT
Landscaping/Irrigation/Fencing	Hauling	0.00	0.50	HHDT
Landscaping/Irrigation/Fencing	Onsite truck	—	—	HHDT
Trenching (Utilities & Slab on Grade	—	—	—	—
Trenching (Utilities & Slab on Grade	Worker	15.0	0.50	LDA,LDT1,LDT2
Trenching (Utilities & Slab on Grade	Vendor	—	0.50	HHDT,MHDT

Trenching (Utilities & Slab on Grade	Hauling	0.00	0.50	HHDT
Trenching (Utilities & Slab on Grade	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	128,383	42,794	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	20,678	—
Site Preparation	—	—	17.3	0.00	—
Landscaping/Irrigation/Fencing	—	—	0.00	0.00	—
Grading	—	5,995	8.25	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Parking Lot	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	0.00	0.00	0.00
2026	0.00	0.00	0.00	0.00

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	12.4	annual days of extreme heat
Extreme Precipitation	6.40	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	0	0	0	N/A

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

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	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	1	1	1	2

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	13.6
AQ-PM	15.2
AQ-DPM	63.9
Drinking Water	43.7
Lead Risk Housing	60.0
Pesticides	28.1
Toxic Releases	31.3
Traffic	75.3
Effect Indicators	—
CleanUp Sites	89.3
Groundwater	91.0
Haz Waste Facilities/Generators	72.0
Impaired Water Bodies	23.9
Solid Waste	0.00

Sensitive Population	—
Asthma	1.87
Cardio-vascular	3.43
Low Birth Weights	5.41
Socioeconomic Factor Indicators	—
Education	5.50
Housing	1.62
Linguistic	57.4
Poverty	24.9
Unemployment	44.4

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	81.43205441
Employed	86.78301039
Median HI	94.55921981
Education	—
Bachelor's or higher	97.12562556
High school enrollment	100
Preschool enrollment	43.68022584
Transportation	—
Auto Access	77.83908636
Active commuting	84.11394842
Social	—
2-parent households	81.89400744

Voting	92.10830232
Neighborhood	—
Alcohol availability	67.49647119
Park access	81.35506224
Retail density	84.13961247
Supermarket access	49.50596689
Tree canopy	82.20197613
Housing	—
Homeownership	59.87424612
Housing habitability	78.15988708
Low-inc homeowner severe housing cost burden	96.95880919
Low-inc renter severe housing cost burden	74.68240729
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	81.62453484
Arthritis	0.0
Asthma ER Admissions	99.3
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	98.9
Cognitively Disabled	84.2
Physically Disabled	55.6
Heart Attack ER Admissions	94.8

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	25.8
English Speaking	41.6
Foreign-born	69.3
Outdoor Workers	72.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	64.5
Traffic Density	50.0
Traffic Access	66.9
Other Indices	—
Hardship	8.2
Other Decision Support	—
2016 Voting	92.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	10.0
Healthy Places Index Score for Project Location (b)	95.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Provided number of dwelling units, square footages (combined residential, office, and community space under residential), number of parking spaces, and total lot acreage from filled-out construction worksheet.
Construction: Construction Phases	Construction dates and phases provided by filled out worksheet.
Construction: Off-Road Equipment	Equipment quantity and hours provided by filled out construction worksheet from project applicant.
Construction: Trips and VMT	Demolition = 52 pavement demo truck trips (3.5 trips/day), Building Construction = 138 concrete truck round trips (1.5 trips/day), Paving = 31 asphalt truck round trips (12.4 trips/day). HRA = 0.5 Mile trip length for localized emissions.
Construction: On-Road Fugitive Dust	Air District required BMPs = 15 mph.

Attachment 2: Project Health Risk Dispersion Modeling Inputs and Risk Calculations

Construction Emissions and Modeling Information

Buena Vista Redevelopment, Palo Alto
CalEEMod Construction Emissions

Mobile Homes

Unmitigated Construction Pollutant Emissions		
Unmitigated	PM10 Exhaust	PM2.5 Fugitive
Year		
Construction Equipment		
2025	0.044	0.037
Tons	0.04	0.04

Tier 4 Final

Mitigated Construction Pollutant Emissions		
Mitigated	PM10 Exhaust	PM2.5 Fugitive
Year		
Construction Equipment		
2025	0.004	0.037
Tons	0.00	0.04

Apartments

Unmitigated Construction Pollutant Emissions		
Unmitigated	PM10 Exhaust	PM2.5 Fugitive
Year		
Construction Equipment		
2025	0.034	0.007
2026	0.032	0.012
Tons	0.07	0.02

Tier 4 Final

Mitigated Construction Pollutant Emissions		
Mitigated	PM10 Exhaust	PM2.5 Fugitive
Year		
Construction Equipment		
2025	0.004	0.007
2026	0.007	0.012
Tons	0.01	0.02

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA

DPM Construction Emissions and Modeling Emission Rates

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Emissions per Point Source (g/s)
2025	Mobile Homes Const	0.0436	Point	306	87.2	0.03105	3.91E-03	1.28E-05
2025	Apartment Const	0.0341	Point	187	68.2	0.02429	3.06E-03	1.64E-05
2026	Apartment Const	0.0322	Point	187	64.4	0.02292	2.89E-03	1.54E-05
Total		***0.1099***			***219.7***	***0.0783***	***0.0099***	

Emissions assumed to be evenly distributed over each construction areas

hr/day =	9	(8am - 5pm)
days/yr =	312	(Mon-Sat)
hours/year =	2808	

PM2.5 Fugitive Dust Construction Emissions for Modeling

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2025	Mobile Homes Const	FUG_MH	0.0367	73.3	0.02611	3.29E-03	11629.0	2.83E-07
2025	Apartment Const	FUG_APT	0.0075	14.9	0.00531	6.69E-04	7082.1	9.45E-08
2026	Apartment Const	FUG_APT	0.0119	23.8	0.00847	1.07E-03	7082.1	1.51E-07
Total			***0.0560***	***112.0***	***0.0399***	***0.0050***		

Emissions assumed to be evenly distributed over each construction areas

hr/day =	9	(8am - 5pm)
days/yr =	312	(Mon-Sat)
hours/year =	2808	

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Emissions per Point Source (g/s)
2025	Mobile Homes Const	0.0043	Point	306	8.6	0.00306	3.85E-04	1.26E-06
2025	Apartment Const	0.0045	Point	187	8.9	0.00317	4.00E-04	2.14E-06
2026	Apartment Const	0.0068	Point	306	13.6	0.00486	6.12E-04	2.00E-06
Total		***0.0156***			***31.1***	***0.0111***	***0.0014***	

Emissions assumed to be evenly distributed over each construction areas

hr/day =	9	(8am - 5pm)
days/yr =	312	(Mon-Sat)
hours/year =	2808	

PM2.5 Fugitive Dust Construction Emissions for Modeling - With Mitigation

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2025	Mobile Homes Const	FUG_MH	0.0367	73.3	0.02611	3.29E-03	11629.0	2.83E-07
2025	Apartment Const	FUG_APT	0.0075	14.9	0.00531	6.69E-04	7082.1	9.45E-08
2026	Apartment Const	FUG_APT	0.0119	23.8	0.00847	1.07E-03	7082.1	1.51E-07
Total			***0.0560***	***112.0***	***0.0399***	***0.0050***		

Emissions assumed to be evenly distributed over each construction areas

hr/day =	9	(8am - 5pm)
days/yr =	312	(Mon-Sat)
hours/year =	2808	

Buena Vista Redevelopment, Palo Alto - Construction Health Impact Modeling
Source Parameters for Point Sources Used in Construction Modeling

Source	Stack Height (ft)	Stack Diam (in)	Exhaust Temp (F)	Volume Flow (acfm)	Velocity (ft/min)	Velocity (ft/sec)
Construction Equipment	9.0	2.5	918	632	18540	309.0

Source	Stack Height (m)	Stack Diam (m)	Exhaust Temp (K)			Velocity (ft/sec)
Construction Equipment	2.74	0.064	765.37			94.2

Construction Health Risk Calculation at Off-Site Receptors

Buena Vista Redevelopment, Palo Alto - Construction Health Impact Summary

Maximum Impacts at Off-Site MEI Residential Location - Without Mitigation

Emissions Year	**Maximum Exhaust PM10/DPM ($\mu g/m^3$)**	**Maximum Cancer Risk (per million) Infant/Child**	**Hazard Index (-)**	**Maximum Annual PM2.5 Concentration ($\mu g/m^3$)**
2025	0.1630	28.99	0.033	0.333
2026	0.1253	20.57	0.025	0.235
Total	-	**49.56**	-	-
Maximum	0.1630	**-**	**0.033**	**0.33**

Maximum Cancer Risk on second floor level in apartments south of project site.
Maximum PM2.5 at first floor level at single family home east of project site.

Maximum Impacts at Off-Site MEI Residential Location - With Mitigation

Emissions Year	**Maximum Exhaust PM10/DPM ($\mu g/m^3$)**	**Maximum Cancer Risk (per million) Infant/Child**	**Hazard Index (-)**	**Maximum Annual PM2.5 Concentration* ($\mu g/m^3$)**
2025	0.0203	3.61	0.004	0.247
2026	0.0163	2.67	0.003	0.168
Total	-	**6.28**	-	-
Maximum	0.0203	**-**	**0.004**	**0.25**

Maximum Cancer Risk on second floor level in apartments south of project site.
Maximum PM2.5 at first floor level at single family home east of project site.

Buena Vista Redevelopment-Construction DPM/PM2.5 Modeling Information
AERMOD Risk Modeling Parameters and Maximum Concentrations
Construction Impacts - Unmitigated Emissions
Off-Site Residential Receptors, 1st Floor (1.5 meter receptor heights)

Receptor Information

Number of Receptors	473
Receptor Height =	1.5 meters
Receptor spacing =	variable, at residential locations

Meteorological Conditions

Moffett Field BAAQMD Hourly Data	2013-2017
Land Use Classification	Urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Emission Period	DPM Concentration ($\mu g/m^3$)
2025 - Construction	0.12048
2026 - Construction	0.07528

Buena Vista Redevelopment-Construction DPM/PM2.5 Modeling Information
AERMOD Risk Modeling Parameters and Maximum Concentrations
Construction Impacts - Unmitigated Emissions
Off-Site Residential Receptors, 2nd Floor (4.5 meter receptor heights)

Receptor Information

Number of Receptors	187
Receptor Height =	4.5 meters
Receptor spacing =	variable, at residential locations

Meteorological Conditions

Moffett Field BAAQMD Hourly Data	2013-2017
Land Use Classification	Urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Emission Period	DPM Concentration ($\mu g/m^3$)
2025 - Construction	0.16301
2026 - Construction	0.12525

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA - Construction Impacts
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated
Off-Site Residential Receptors, 1st Floor (1.5 meter receptor heights)
Residential Exposure (30-year)

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)

10^{-6} = Conversion factor

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - <2**	**2 - 16**	**16 - 70**
Parameter				
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information			Maximum	
Exposure Year	**Year**	**Exposure Duration (years)**	**Age**	**Age Sensitivity Factor**	**Annual DPM Conc. (ug/m3)**	**DPM Cancer Risk (per million)**	**Hazard Index**	**Total PM2.5**
3rd Trimester	2025	0.25	-0.25 - 0*	10	0.1205	1.64	0.0241	
1	2025	1	1	10	0.1205	19.79	**0.0241**	**0.333**
2	2026	1	2	10	0.0753	12.36	0.0151	0.235
3	2027	1	3	3	0.0000	0.00		
4	2028	1	4	3	0.0000	0.00		
5	2029	1	5	3	0.0000	0.00		
6	2030	1	6	3	0.0000	0.00		
7	2031	1	7	3	0.0000	0.00		
8	2032	1	8	3	0.0000	0.00		
9	2033	1	9	3	0.0000	0.00		
10	2034	1	10	3	0.0000	0.00		
11	2035	1	11	3	0.0000	0.00		
12	2036	1	12	3	0.0000	0.00		
13	2037	1	13	3	0.0000	0.00		
14	2038	1	14	3	0.0000	0.00		
15	2039	1	15	3	0.0000	0.00		
16	2040	1	16	3	0.0000	0.00		
17	2041	1	17	1	0.0000	0.000		
18	2042	1	18	1	0.0000	0.000		
19	2043	1	19	1	0.0000	0.000		
20	2044	1	20	1	0.0000	0.000		
21	2045	1	21	1	0.0000	0.000		
22	2046	1	22	1	0.0000	0.000		
23	2047	1	23	1	0.0000	0.000		
24	2048	1	24	1	0.0000	0.000		
25	2049	1	25	1	0.0000	0.000		
26	2050	1	26	1	0.0000	0.000		
27	2051	1	27	1	0.0000	0.000		
28	2052	1	28	1	0.0000	0.000		
29	2053	1	29	1	0.0000	0.000		
30	2054	1	30	1	0.0000	0.000		
Total Increased Cancer Risk						**33.79**		

* Third trimester of pregnancy

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA - Construction Impacts
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated
Off-Site Residential Receptors, 2nd Floor (4.5 meter receptor heights)
Residential Exposure (30-year)

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)

10^{-6} = Conversion factor

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00

	Infant/Child			Adult
Age -->	3rd Trimester	0 - <2	2 - 16	16 - 70
Parameter				
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information			Maximum	
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	Annual DPM Conc. (ug/m3)	DPM Cancer Risk (per million)	Hazard Index	Total PM2.5
3rd Trimester	2025	0.25	-0.25 - 0*	10	0.1630	2.22	0.0326	
1	2025	1	1	10	0.1630	26.77	**0.0326**	**0.224**
2	2026	1	2	10	0.1253	20.57	0.0251	0.235
3	2027	1	3	3	0.0000	0.00		
4	2028	1	4	3	0.0000	0.00		
5	2029	1	5	3	0.0000	0.00		
6	2030	1	6	3	0.0000	0.00		
7	2031	1	7	3	0.0000	0.00		
8	2032	1	8	3	0.0000	0.00		
9	2033	1	9	3	0.0000	0.00		
10	2034	1	10	3	0.0000	0.00		
11	2035	1	11	3	0.0000	0.00		
12	2036	1	12	3	0.0000	0.00		
13	2037	1	13	3	0.0000	0.00		
14	2038	1	14	3	0.0000	0.00		
15	2039	1	15	3	0.0000	0.00		
16	2040	1	16	3	0.0000	0.00		
17	2041	1	17	1	0.0000	0.000		
18	2042	1	18	1	0.0000	0.000		
19	2043	1	19	1	0.0000	0.000		
20	2044	1	20	1	0.0000	0.000		
21	2045	1	21	1	0.0000	0.000		
22	2046	1	22	1	0.0000	0.000		
23	2047	1	23	1	0.0000	0.000		
24	2048	1	24	1	0.0000	0.000		
25	2049	1	25	1	0.0000	0.000		
26	2050	1	26	1	0.0000	0.000		
27	2051	1	27	1	0.0000	0.000		
28	2052	1	28	1	0.0000	0.000		
29	2053	1	29	1	0.0000	0.000		
30	2054	1	30	1	0.0000	0.000		
Total Increased Cancer Risk						**49.56**		

* Third trimester of pregnancy

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA - Construction Risks at School Receptors
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction Emissions Unmitigated
Impacts at Keys Middle School (5th-8th Grades)- 1st Floor (1 m receptor heights)

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SCAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SCAF = School Child Adjustment Factor (unitless) for source operation and exposures different than 8 hours/day
= (24/SHR) x (7days/SDay) x (SCHR/8 hrs)
SHR = Hours/day of emission source operation
SDay = Number of days per week of source operation
SCHR = School operation hours while emission source in operation
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	**Child**
Age -->	**0 - <2**	**2 - <16**
Parameter		
ASF =	10	3
DPM CPF =	1.10E+00	1.10E+00
8-Hr BR* =	1200	520
SCHR =	9	9
SHR =	9	9
SDay =	6	6
A =	1	1
EF =	250	250
AT =	70	70
SCAF =	3.50	3.50

* 95th percentile 8-hr breathing rates for moderate intensity activities

Construction Cancer Risk by Year - Maximum School Impact Receptor Location

			Child - Exposure Information			**Child**	**Maximum**	
Exposure Year	**Exposure Duration (years)**	**Age**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age* Sensitivity Factor**	**Cancer Risk (per million)**	**Hazard Index**	**Total PM2.5**
1	1	10 - 11	2025	0.00454	3	0.27	0.001	0.007
1	1	11 - 12	2026	0.00106	3	0.06	0.000	0.001
Total Increased Cancer Risk						**0.33**		

* Children assumed to be 10 years and older during 2 years of construction activities

Buena Vista Redevelopment-Construction DPM/PM2.5 Modeling Information
AERMOD Risk Modeling Parameters and Maximum Concentrations
Construction Impacts - Mitigated Emissions
Off-Site Residential Receptors, 1st Floor (1.5 meter receptor heights)

Receptor Information

Number of Receptors	473
Receptor Height =	1.5 meters
Receptor spacing =	variable, at residential locations

Meteorological Conditions

Moffett Field BAAQMD Hourly Data	2013-2017
Land Use Classification	Urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Emission Period	DPM Concentration ($\mu g/m^3$)
2025 - Construction	0.01441
2026 - Construction	0.00978

Buena Vista Redevelopment-Construction DPM/PM2.5 Modeling Information
AERMOD Risk Modeling Parameters and Maximum Concentrations
Construction Impacts - Mitigated Emissions
Off-Site Residential Receptors, 2nd Floor (4.5 meter receptor heights)

Receptor Information

Number of Receptors	187
Receptor Height =	4.5 meters
Receptor spacing =	variable, at residential locations

Meteorological Conditions

Moffett Field BAAQMD Hourly Data	2013-2017
Land Use Classification	Urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Emission Period	DPM Concentration ($\mu g/m^3$)
2025 - Construction	0.02030
2026 - Construction	0.01627

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA - Construction Impacts
Maximum DPM Cancer Risk Calculations From Construction - Mitigated
Off-Site Residential Receptors, 1st Floor (1.5 meter receptor heights)
Residential Exposure (30-year)

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)

10^{-6} = Conversion factor

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00

	Infant/Child			Adult
Age -->	3rd Trimester	0 - <2	2 - 16	16 - 70
Parameter				
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information			Maximum	
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	Annual DPM Conc. (ug/m3)	DPM Cancer Risk (per million)	Hazard Index	Total PM2.5
3rd Trimester	2025	0.25	-0.25 - 0*	10	0.0144	0.20	0.0029	
1	2025	1	1	10	0.0144	2.37	**0.0029**	**0.247**
2	2026	1	2	10	0.0098	1.61	0.0020	0.168
3	2027	1	3	3	0.0000	0.00		
4	2028	1	4	3	0.0000	0.00		
5	2029	1	5	3	0.0000	0.00		
6	2030	1	6	3	0.0000	0.00		
7	2031	1	7	3	0.0000	0.00		
8	2032	1	8	3	0.0000	0.00		
9	2033	1	9	3	0.0000	0.00		
10	2034	1	10	3	0.0000	0.00		
11	2035	1	11	3	0.0000	0.00		
12	2036	1	12	3	0.0000	0.00		
13	2037	1	13	3	0.0000	0.00		
14	2038	1	14	3	0.0000	0.00		
15	2039	1	15	3	0.0000	0.00		
16	2040	1	16	3	0.0000	0.00		
17	2041	1	17	1	0.0000	0.000		
18	2042	1	18	1	0.0000	0.000		
19	2043	1	19	1	0.0000	0.000		
20	2044	1	20	1	0.0000	0.000		
21	2045	1	21	1	0.0000	0.000		
22	2046	1	22	1	0.0000	0.000		
23	2047	1	23	1	0.0000	0.000		
24	2048	1	24	1	0.0000	0.000		
25	2049	1	25	1	0.0000	0.000		
26	2050	1	26	1	0.0000	0.000		
27	2051	1	27	1	0.0000	0.000		
28	2052	1	28	1	0.0000	0.000		
29	2053	1	29	1	0.0000	0.000		
30	2054	1	30	1	0.0000	0.000		
Total Increased Cancer Risk						**4.17**		

* Third trimester of pregnancy

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA - Construction Impacts
Maximum DPM Cancer Risk Calculations From Construction - Mitigated
Off-Site Residential Receptors, 2nd Floor (4.5 meter receptor heights)
Residential Exposure (30-year)

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)

10^{-6} = Conversion factor

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00

	Infant/Child			Adult
Age -->	3rd Trimester	0 - <2	2 - 16	16 - 70
Parameter				
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information			Maximum	
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	Annual DPM Conc. (ug/m3)	DPM Cancer Risk (per million)	Hazard Index	Total PM2.5
3rd Trimester	2025	0.25	-0.25 - 0*	10	0.0203	0.28	0.0041	
1	2025	1	1	10	0.0203	3.33	**0.0041**	**0.247**
2	2026	1	2	10	0.0163	2.67	0.0033	0.168
3	2027	1	3	3	0.0000	0.00		
4	2028	1	4	3	0.0000	0.00		
5	2029	1	5	3	0.0000	0.00		
6	2030	1	6	3	0.0000	0.00		
7	2031	1	7	3	0.0000	0.00		
8	2032	1	8	3	0.0000	0.00		
9	2033	1	9	3	0.0000	0.00		
10	2034	1	10	3	0.0000	0.00		
11	2035	1	11	3	0.0000	0.00		
12	2036	1	12	3	0.0000	0.00		
13	2037	1	13	3	0.0000	0.00		
14	2038	1	14	3	0.0000	0.00		
15	2039	1	15	3	0.0000	0.00		
16	2040	1	16	3	0.0000	0.00		
17	2041	1	17	1	0.0000	0.000		
18	2042	1	18	1	0.0000	0.000		
19	2043	1	19	1	0.0000	0.000		
20	2044	1	20	1	0.0000	0.000		
21	2045	1	21	1	0.0000	0.000		
22	2046	1	22	1	0.0000	0.000		
23	2047	1	23	1	0.0000	0.000		
24	2048	1	24	1	0.0000	0.000		
25	2049	1	25	1	0.0000	0.000		
26	2050	1	26	1	0.0000	0.000		
27	2051	1	27	1	0.0000	0.000		
28	2052	1	28	1	0.0000	0.000		
29	2053	1	29	1	0.0000	0.000		
30	2054	1	30	1	0.0000	0.000		
Total Increased Cancer Risk						**6.28**		

* Third trimester of pregnancy

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA - Construction Risks at School Receptors
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction Emissions Mitigated
Impacts at Keys Middle School (5th-8th Grades)- 1st Floor (1 m receptor heights)

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SCAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SCAF = School Child Adjustment Factor (unitless) for source operation and exposures different than 8 hours/day
= (24/SHR) x (7days/SDay) x (SCHR/8 hrs)
SHR = Hours/day of emission source operation
SDay = Number of days per week of source operation
SCHR = School operation hours while emission source in operation
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	**Child**
Age -->	**0 - <2**	**2 - <16**
Parameter		
ASF =	10	3
DPM CPF =	1.10E+00	1.10E+00
8-Hr BR* =	1200	520
SCHR =	9	9
SHR =	9	9
SDay =	6	6
A =	1	1
EF =	250	250
AT =	70	70
SCAF =	3.50	3.50

* 95th percentile 8-hr breathing rates for moderate intensity activities

Construction Cancer Risk by Year - Maximum School Impact Receptor Location

Exposure Year	**Exposure Duration (years)**	**Age**	**Child - Exposure Information** DPM Conc (ug/m3) Year	Annual	**Age* Sensitivity Factor**	**Child Cancer Risk (per million)**	**Maximum** Hazard Index	Total PM2.5
1	1	10 - 11	2025	0.00048	3	0.03	0.000	0.003
1	1	11 - 12	2026	0.00014	3	0.01	0.000	0.000
Total Increased Cancer Risk						**0.04**		

* Children assumed to be 10 years and older during 2 years of construction activities

Construction Health Risk Calculation at On-Site Receptors

Buena Vista Redevelopment-Construction DPM/PM2.5 Modeling Information
AERMOD Risk Modeling Parameters and Maximum Concentrations
Construction Impacts - Unmitigated Emissions
On-Site Residential Receptors (Mobile Home Project), 1st Floor (1.5 m receptor heights)

Receptor Information

Number of Receptors	47
Receptor Height =	1.5 meters
Receptor spacing =	variable, at residential locations

Meteorological Conditions

Moffett Field BAAQMD Hourly Data	2013-2017
Land Use Classification	Urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Emission Period	DPM Concentration ($\mu g/m^3$)
2026 - Construction	0.01346

Buena Vista Redevelopment-Construction DPM/PM2.5 Modeling Information
AERMOD Risk Modeling Parameters and Maximum Concentrations
Construction Impacts - Mitigated Emissions
On-Site Residential Receptors (Mobile Home Project), 1st Floor (1.5 m receptor heights)

Receptor Information

Number of Receptors	47
Receptor Height =	1.5 meters
Receptor spacing =	variable, at residential locations

Meteorological Conditions

Moffett Field BAAQMD Hourly Data	2013-2017
Land Use Classification	Urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Emission Period	DPM Concentration ($\mu g/m^3$)
2026 - Construction	0.00175

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA - Construction Impacts
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated
On-Site Residential Receptors (Mobile Home Project), 1st Floor (1.5 m receptor heights)
Residential Exposure (30-year)

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)

10^{-6} = Conversion factor

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00

	Infant/Child			Adult
Age -->	3rd Trimester	0 - <2	2 - 16	16 - 70
Parameter				
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information			Maximum	
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	Annual DPM Conc. (ug/m3)	DPM Cancer Risk (per million)	Hazard Index	Total PM2.5
3rd Trimester	2026	0.25	-0.25 - 0*	10	0.0135	0.18	0.0027	
1	2026	1	1	10	0.0135	2.21	**0.0027**	**0.030**
2	2027	1	2	10	0.0000	0.00		
3	2028	1	3	3	0.0000	0.00		
4	2029	1	4	3	0.0000	0.00		
5	2030	1	5	3	0.0000	0.00		
6	2031	1	6	3	0.0000	0.00		
7	2032	1	7	3	0.0000	0.00		
8	2033	1	8	3	0.0000	0.00		
9	2034	1	9	3	0.0000	0.00		
10	2035	1	10	3	0.0000	0.00		
11	2036	1	11	3	0.0000	0.00		
12	2037	1	12	3	0.0000	0.00		
13	2038	1	13	3	0.0000	0.00		
14	2039	1	14	3	0.0000	0.00		
15	2040	1	15	3	0.0000	0.00		
16	2041	1	16	3	0.0000	0.00		
17	2042	1	17	1	0.0000	0.000		
18	2043	1	18	1	0.0000	0.000		
19	2044	1	19	1	0.0000	0.000		
20	2045	1	20	1	0.0000	0.000		
21	2046	1	21	1	0.0000	0.000		
22	2047	1	22	1	0.0000	0.000		
23	2048	1	23	1	0.0000	0.000		
24	2049	1	24	1	0.0000	0.000		
25	2050	1	25	1	0.0000	0.000		
26	2051	1	26	1	0.0000	0.000		
27	2052	1	27	1	0.0000	0.000		
28	2053	1	28	1	0.0000	0.000		
29	2054	1	29	1	0.0000	0.000		
30	2055	1	30	1	0.0000	0.000		
Total Increased Cancer Risk						**2.39**		

* Third trimester of pregnancy

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA - Construction Impacts
Maximum DPM Cancer Risk Calculations From Construction - Mitigated
On-Site Residential Receptors (Mobile Home Project), 1st Floor (1.5 m receptor heights)
Residential Exposure (30-year)

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)

10^{-6} = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)$^{-1}$

TAC	CPF
DPM	1.10E+00

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - <2**	**2 - 16**	**16 - 70**
Parameter				
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information			Maximum	
Exposure Year	**Year**	**Exposure Duration (years)**	**Age**	**Age Sensitivity Factor**	**Annual DPM Conc. (ug/m3)**	**DPM Cancer Risk (per million)**	**Hazard Index**	**Total PM2.5**
3rd Trimester	2026	0.25	-0.25 - 0*	10	0.0018	0.02	0.0004	
1	2026	1	1	10	0.0018	0.29	**0.0004**	**0.019**
2	2027	1	2	10	0.0000	0.00		
3	2028	1	3	3	0.0000	0.00		
4	2029	1	4	3	0.0000	0.00		
5	2030	1	5	3	0.0000	0.00		
6	2031	1	6	3	0.0000	0.00		
7	2032	1	7	3	0.0000	0.00		
8	2033	1	8	3	0.0000	0.00		
9	2034	1	9	3	0.0000	0.00		
10	2035	1	10	3	0.0000	0.00		
11	2036	1	11	3	0.0000	0.00		
12	2037	1	12	3	0.0000	0.00		
13	2038	1	13	3	0.0000	0.00		
14	2039	1	14	3	0.0000	0.00		
15	2040	1	15	3	0.0000	0.00		
16	2041	1	16	3	0.0000	0.00		
17	2042	1	17	1	0.0000	0.000		
18	2043	1	18	1	0.0000	0.000		
19	2044	1	19	1	0.0000	0.000		
20	2045	1	20	1	0.0000	0.000		
21	2046	1	21	1	0.0000	0.000		
22	2047	1	22	1	0.0000	0.000		
23	2048	1	23	1	0.0000	0.000		
24	2049	1	24	1	0.0000	0.000		
25	2050	1	25	1	0.0000	0.000		
26	2051	1	26	1	0.0000	0.000		
27	2052	1	27	1	0.0000	0.000		
28	2053	1	28	1	0.0000	0.000		
29	2054	1	29	1	0.0000	0.000		
30	2055	1	30	1	0.0000	0.000		
Total Increased Cancer Risk						**0.31**		

* Third trimester of pregnancy

Attachment 3: Cumulative Screening and Health Risk Modeling from Existing TAC Sources

El Camino Real Emissions and Traffic Health Risk Calculations at On-Site Receptors

Emission Calculations

File Name:	Santa Clara (SF) - 2025 - Annual-Buena Vista ECR.EF
CT-EMFAC2021 Version:	1.0.2.0
Run Date:	5/20/2024 16:04
Area:	Santa Clara (SF)
Analysis Year:	2025
Season:	Annual

===

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.02	0.416	0.572
Truck 2	0.006	0.909	0.045
Non-Truck	0.974	0.007	0.917

===

Road Type:	Major/Collector	
Silt Loading Factor:	CARB	0.032 g/m2
Precipitation Correction:	CARB	P = 63 days N = 365 days

===

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph
PM2.5	0.008585	0.005595	0.003819	0.002741	0.002074	0.001649	0.001379	0.001214	0.001128	0.001107	0.001146	0.001245
TOG	0.131108	0.084802	0.057266	0.040899	0.030927	0.024604	0.020532	0.017959	0.016462	0.01583	0.015976	0.01696
Diesel PM	0.000965	0.000809	0.000637	0.000508	0.000422	0.000361	0.000319	0.000295	0.000287	0.000296	0.000321	0.000357
DEOG	0.005834	0.004826	0.003378	0.002488	0.002037	0.001715	0.001456	0.00125	0.001093	0.00098	0.000912	0.000923

===

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	1.011867

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Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002045

===

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph
PM2.5	0.003125	0.003674	0.00422	0.004763	0.005071	0.005173	0.005253	0.004794	0.003784	0.002778	0.002131	0.001825

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Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.013911

=============================END=====================================

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA - Roadway Modeling Emissions
El Camino Real
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
DPM_EBECR	Eastbound El Camino	NW-SE	3	709	0.44	17.0	55.7	3.4	60	19,828
DPM_WBECR	Westbound El Camino	SE-NW	3	709	0.44	17.0	55.7	3.4	60	19,828
										39,655

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.00036			

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and DPM Emissions - DPM_EBECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.93%	780	3.45E-05	9	6.41%	1270	5.61E-05	17	5.55%	1101	4.86E-05
2	2.62%	520	2.30E-05	10	7.36%	1460	6.45E-05	18	3.16%	626	2.76E-05
3	2.85%	565	2.50E-05	11	6.34%	1257	5.55E-05	19	2.36%	468	2.07E-05
4	3.31%	656	2.90E-05	12	6.92%	1372	6.06E-05	20	0.87%	172	7.58E-06
5	2.17%	430	1.90E-05	13	6.29%	1247	5.51E-05	21	3.09%	612	2.71E-05
6	3.36%	667	2.95E-05	14	6.23%	1236	5.46E-05	22	4.12%	816	3.60E-05
7	6.00%	1189	5.25E-05	15	5.15%	1021	4.51E-05	23	2.58%	511	2.26E-05
8	4.58%	908	4.01E-05	16	3.84%	761	3.36E-05	24	0.92%	183	8.08E-06
								Total		19,828	

2025 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WBECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.93%	780	3.45E-05	9	6.41%	1270	5.61E-05	17	5.55%	1101	4.86E-05
2	2.62%	520	2.30E-05	10	7.36%	1460	6.45E-05	18	3.16%	626	2.76E-05
3	2.85%	565	2.50E-05	11	6.34%	1257	5.55E-05	19	2.36%	468	2.07E-05
4	3.31%	656	2.90E-05	12	6.92%	1372	6.06E-05	20	0.87%	172	7.58E-06
5	2.17%	430	1.90E-05	13	6.29%	1247	5.51E-05	21	3.09%	612	2.71E-05
6	3.36%	667	2.95E-05	14	6.23%	1236	5.46E-05	22	4.12%	816	3.60E-05
7	6.00%	1189	5.25E-05	15	5.15%	1021	4.51E-05	23	2.58%	511	2.26E-05
8	4.58%	908	4.01E-05	16	3.84%	761	3.36E-05	24	0.92%	183	8.08E-06
								Total		19,828	

Analysis Year = ***2025***

Vehicle Type	2022 Caltrans Vehicles (veh/day)	2025 Vehicles (veh/day)
Truck 1 (MDT)	771	794
Truck 2 (HDT)	219	225
Non-Truck	37,511	38,636
All	**38,500**	**39,655**

Increase From 2022	1.03
Vehicles/Direction	**19,828**
Avg Vehicles/Hour/Direction	826

Traffic Data Year = ***2022***

2022 Caltrans Truck AADT (% trucks) and 2022 Caltrans Traffic Volumes	AADT Total	Total Truck	Trucks by Axle 2	3	4	5
Rte 82, A Charleston Road, Palo Alto	38,500	989	771	172	8	39
Rte 82, A Jct. Rte. 237 East, Mountain View			77.88%	17.34%	0.80%	3.98%
Percent of Total Vehicles		2.57%	2.00%	0.45%	0.02%	0.10%

Traffic Increase per Year (%) = *1.00%*

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA - Roadway Modeling Emissions
El Camino Real
PM2.5 Modeling - Roadway Links, Traffic Volumes, and Exhaust PM2.5 Emissions
Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
PM25_EBECR	Eastbound El Camino	NW-SE	3	709	0.44	17.0	56	1.3	60	19,828
PM25_WBECR	Westbound El Camino	SE-NW	3	709	0.44	17.0	56	1.3	60	19,828
									Total	39,655

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.00165			

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and PM2.5 Emissions - PM25_EBECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	228	4.60E-05	9	7.11%	1410	2.85E-04	17	7.39%	1465	2.96E-04
2	0.42%	84	1.69E-05	10	4.39%	870	1.76E-04	18	8.18%	1621	3.27E-04
3	0.41%	81	1.63E-05	11	4.66%	924	1.87E-04	19	5.69%	1129	2.28E-04
4	0.26%	52	1.04E-05	12	5.89%	1167	2.36E-04	20	4.28%	848	1.71E-04
5	0.50%	99	1.99E-05	13	6.15%	1220	2.46E-04	21	3.25%	645	1.30E-04
6	0.91%	180	3.63E-05	14	6.04%	1197	2.42E-04	22	3.30%	654	1.32E-04
7	3.79%	751	1.52E-04	15	7.01%	1390	2.81E-04	23	2.46%	488	9.85E-05
8	7.77%	1540	3.11E-04	16	7.14%	1416	2.86E-04	24	1.86%	370	7.46E-05
								Total		19,828	

2025 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_WBECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	228	4.60E-05	9	7.11%	1410	2.85E-04	17	7.39%	1465	2.96E-04
2	0.42%	84	1.69E-05	10	4.39%	870	1.76E-04	18	8.18%	1621	3.27E-04
3	0.41%	81	1.63E-05	11	4.66%	924	1.87E-04	19	5.69%	1129	2.28E-04
4	0.26%	52	1.04E-05	12	5.89%	1167	2.36E-04	20	4.28%	848	1.71E-04
5	0.50%	99	1.99E-05	13	6.15%	1220	2.46E-04	21	3.25%	645	1.30E-04
6	0.91%	180	3.63E-05	14	6.04%	1197	2.42E-04	22	3.30%	654	1.32E-04
7	3.79%	751	1.52E-04	15	7.01%	1390	2.81E-04	23	2.46%	488	9.85E-05
8	7.77%	1540	3.11E-04	16	7.14%	1416	2.86E-04	24	1.86%	370	7.46E-05
								Total		19,828	

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA - Roadway Modeling Emissions
El Camino Real
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
TEXH_EBECR	Eastbound El Camino	NW-SE	3	709	0.44	17.0	56	1.3	60	19,828
TEXH_WBECR	Westbound El Camino	SE-NW	3	709	0.44	17.0	56	1.3	60	19,828
									Total	39,655

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.02460			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.00172			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.02289			

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EBECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	228	6.38E-04	9	7.11%	1410	3.95E-03	17	7.39%	1465	4.10E-03
2	0.42%	84	2.34E-04	10	4.39%	870	2.44E-03	18	8.18%	1621	4.54E-03
3	0.41%	81	2.27E-04	11	4.66%	924	2.59E-03	19	5.69%	1129	3.16E-03
4	0.26%	52	1.44E-04	12	5.89%	1167	3.27E-03	20	4.28%	848	2.37E-03
5	0.50%	99	2.76E-04	13	6.15%	1220	3.42E-03	21	3.25%	645	1.81E-03
6	0.91%	180	5.04E-04	14	6.04%	1197	3.35E-03	22	3.30%	654	1.83E-03
7	3.79%	751	2.10E-03	15	7.01%	1390	3.89E-03	23	2.46%	488	1.37E-03
8	7.77%	1540	4.31E-03	16	7.14%	1416	3.97E-03	24	1.86%	370	1.04E-03
								Total		19,828	

2025 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_WBECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	228	6.38E-04	9	7.11%	1410	3.95E-03	17	7.39%	1465	4.10E-03
2	0.42%	84	2.34E-04	10	4.39%	870	2.44E-03	18	8.18%	1621	4.54E-03
3	0.41%	81	2.27E-04	11	4.66%	924	2.59E-03	19	5.69%	1129	3.16E-03
4	0.26%	52	1.44E-04	12	5.89%	1167	3.27E-03	20	4.28%	848	2.37E-03
5	0.50%	99	2.76E-04	13	6.15%	1220	3.42E-03	21	3.25%	645	1.81E-03
6	0.91%	180	5.04E-04	14	6.04%	1197	3.35E-03	22	3.30%	654	1.83E-03
7	3.79%	751	2.10E-03	15	7.01%	1390	3.89E-03	23	2.46%	488	1.37E-03
8	7.77%	1540	4.31E-03	16	7.14%	1416	3.97E-03	24	1.86%	370	1.04E-03
								Total		19,828	

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA - Roadway Modeling Emissions
El Camino Real
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
TEVAP_EBECR	Eastbound El Camino	NW-SE	3	709	0.44	17.0	56	1.3	60	19,828
TEVAP_WBECR	Westbound El Camino	SE-NW	3	709	0.44	17.0	56	1.3	60	19,828
									Total	39,655

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle per Hour (g/hour)	1.01187			
Emissions per Vehicle per Mile (g/VMT)	0.03373			

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EBECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	228	9.41E-04	9	7.11%	1410	5.82E-03	17	7.39%	1465	6.05E-03
2	0.42%	84	3.45E-04	10	4.39%	870	3.59E-03	18	8.18%	1621	6.69E-03
3	0.41%	81	3.34E-04	11	4.66%	924	3.82E-03	19	5.69%	1129	4.66E-03
4	0.26%	52	2.13E-04	12	5.89%	1167	4.82E-03	20	4.28%	848	3.50E-03
5	0.50%	99	4.07E-04	13	6.15%	1220	5.03E-03	21	3.25%	645	2.66E-03
6	0.91%	180	7.42E-04	14	6.04%	1197	4.94E-03	22	3.30%	654	2.70E-03
7	3.79%	751	3.10E-03	15	7.01%	1390	5.74E-03	23	2.46%	488	2.01E-03
8	7.77%	1540	6.36E-03	16	7.14%	1416	5.84E-03	24	1.86%	370	1.53E-03
								Total		19,828	

2025 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_WBECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	228	9.41E-04	9	7.11%	1410	5.82E-03	17	7.39%	1465	6.05E-03
2	0.42%	84	3.45E-04	10	4.39%	870	3.59E-03	18	8.18%	1621	6.69E-03
3	0.41%	81	3.34E-04	11	4.66%	924	3.82E-03	19	5.69%	1129	4.66E-03
4	0.26%	52	2.13E-04	12	5.89%	1167	4.82E-03	20	4.28%	848	3.50E-03
5	0.50%	99	4.07E-04	13	6.15%	1220	5.03E-03	21	3.25%	645	2.66E-03
6	0.91%	180	7.42E-04	14	6.04%	1197	4.94E-03	22	3.30%	654	2.70E-03
7	3.79%	751	3.10E-03	15	7.01%	1390	5.74E-03	23	2.46%	488	2.01E-03
8	7.77%	1540	6.36E-03	16	7.14%	1416	5.84E-03	24	1.86%	370	1.53E-03
								Total		19,828	

Buena Vista Redevelopment, 3980 El Camino Real, Palo Alto, CA - Roadway Modeling Emissions
El Camino Real
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2025

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day
FUG_EBECR	Eastbound El Camino	NW-SE	3	709	0.44	17.0	56	1.3	60	19,828
FUG_WBECR	Westbound El Camino	SE-NW	3	709	0.44	17.0	56	1.3	60	19,828
									Total	39,655

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00205			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00517			
Road Dust - Emissions per Vehicle (g/VMT)	0.01391			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.02113			

Emisson Factors from CT-EMFAC2021

2025 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_EBECR

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	228	5.89E-04	9	7.11%	1410	3.65E-03	17	7.39%	1465	3.79E-03
2	0.42%	84	2.16E-04	10	4.39%	870	2.25E-03	18	8.18%	1621	4.19E-03
3	0.41%	81	2.09E-04	11	4.66%	924	2.39E-03	19	5.69%	1129	2.92E-03
4	0.26%	52	1.33E-04	12	5.89%	1167	3.02E-03	20	4.28%	848	2.19E-03
5	0.50%	99	2.55E-04	13	6.15%	1220	3.15E-03	21	3.25%	645	1.67E-03
6	0.91%	180	4.65E-04	14	6.04%	1197	3.10E-03	22	3.30%	654	1.69E-03
7	3.79%	751	1.94E-03	15	7.01%	1390	3.59E-03	23	2.46%	488	1.26E-03
8	7.77%	1540	3.98E-03	16	7.14%	1416	3.66E-03	24	1.86%	370	9.56E-04
								Total		19,828	

2025 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_WBECR

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	228	5.89E-04	9	7.11%	1410	3.65E-03	17	7.39%	1465	3.79E-03
2	0.42%	84	2.16E-04	10	4.39%	870	2.25E-03	18	8.18%	1621	4.19E-03
3	0.41%	81	2.09E-04	11	4.66%	924	2.39E-03	19	5.69%	1129	2.92E-03
4	0.26%	52	1.33E-04	12	5.89%	1167	3.02E-03	20	4.28%	848	2.19E-03
5	0.50%	99	2.55E-04	13	6.15%	1220	3.15E-03	21	3.25%	645	1.67E-03
6	0.91%	180	4.65E-04	14	6.04%	1197	3.10E-03	22	3.30%	654	1.69E-03
7	3.79%	751	1.94E-03	15	7.01%	1390	3.59E-03	23	2.46%	488	1.26E-03
8	7.77%	1540	3.98E-03	16	7.14%	1416	3.66E-03	24	1.86%	370	9.56E-04
								Total		19,828	

Health Risk Calculations

Buena Vista Redevelopment - El Camino Real Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site Maximum 1st Floor Residential Health Risk Receptor (1.5 m receptor height)

<u>Emissions Year</u> 2025
<u>Receptor Information</u>
Number of Receptors 107
Receptor Height = 1.5 meters above ground level
Receptor distances = variable

<u>Meteorological Conditions</u>
Moffett Field BAAQMD Hourly Data 2013-2017
Land Use Classification urban
Wind speed = variable
Wind direction = variable

MEI Maximum Concentrations

Emission Years	Concentration ($\mu g/m^3$)		
	DPM	**Exhaust TOG**	**Evaporative TOG**
2025	0.00225	0.1515	0.2236

Emission Years	PM2.5 Concentrations ($\mu g/m^3$)
	Total PM2.5
2025	0.1513

Buena Vista Redevelopment - El Camino Real Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site Maximum 2nd Floor Residential Health Risk Receptor (4.5 m receptor height)

<u>Emissions Year</u> 2025
<u>Receptor Information</u>
Number of Receptors 60
Receptor Height = 4.5 neters
Receptor distances = 7 m grid spacing in residential area

<u>Meteorological Conditions</u>
Moffett Field BAAQMD Hourly Data 2013-2017
Land Use Classification urban
Wind speed = variable
Wind direction = variable

MEI Maximum Concentrations

Emission Years	Concentration ($\mu g/m^3$)		
	DPM	**Exhaust TOG**	**Evaporative TOG**
2025	0.00081	0.0510	0.0753

Emission Years	PM2.5 Concentrations ($\mu g/m^3$)
	Total PM2.5
2025	0.0509

Buena Vista Redevelopment - El Camino Real Traffic Maximum Cancer Risks
On-Site Maximum 1st Floor Residential Health Risk Receptor (1.5 m receptor height)
30-Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

	Infant/Child			Adult
Age -->	3rd Trimester	0 - <2	2 - <16	16 - 30
Parameter				
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information: Age Sensitivity Factor	Annual TAC Conc (ug/m3): DPM	Exhaust TOG	Evaporative TOG	Cancer Risk (per million): DPM	Exhaust TOG	Evaporative TOG	Total
0	2026	0.25	-0.25 - 0*	10	0.0023	0.1515	0.2236	0.031	0.012	0.001	0.0434
1	2026	1	1	10	0.0023	0.1515	0.2236	0.37	0.142	0.012	0.5240
2	2027	1	2	10	0.0023	0.1515	0.2236	0.37	0.142	0.012	0.5240
3	2028	1	3	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
4	2029	1	4	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
5	2030	1	5	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
6	2031	1	6	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
7	2032	1	7	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
8	2033	1	8	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
9	2034	1	9	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
10	2035	1	10	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
11	2036	1	11	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
12	2037	1	12	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
13	2038	1	13	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
14	2039	1	14	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
15	2040	1	15	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
16	2041	1	16	3	0.0023	0.1515	0.2236	0.06	0.022	0.002	0.0825
17	2042	1	17	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
18	2043	1	18	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
19	2044	1	19	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
20	2045	1	20	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
21	2046	1	21	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
22	2047	1	22	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
23	2048	1	23	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
24	2049	1	24	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
25	2050	1	25	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
26	2051	1	26	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
27	2052	1	27	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
28	2053	1	28	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
29	2054	1	29	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
30	2055	1	30	1	0.0023	0.1515	0.2236	0.01	0.002	0.000	0.0092
Total Increased Cancer Risk			**Total**					1.67	0.644	0.056	**2.37**

* Third trimester of pregnancy

Buena Vista Redevelopment - El Camino Real Traffic Maximum Cancer Risks
On-Site Maximum 2nd Floor Residential Health Risk Receptor (4.5 m receptor height)
30-Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

	Infant/Child			Adult
Age -->	3rd Trimester	0 - <2	2 - <16	16 - 30
Parameter				
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information				Cancer Risk (per million)			
		Exposure		Age	Annual TAC Conc (ug/m3)						
Exposure		Duration		Sensitivity		Exhaust	Evaporative		Exhaust	Evaporative	
Year	Year	(years)	Age	Factor	DPM	TOG	TOG	DPM	TOG	TOG	Total
0	2026	0.25	-0.25 - 0*	10	0.0008	0.0510	0.0753	0.011	0.004	0.000	0.01532
1	2026	1	1	10	0.0008	0.0510	0.0753	0.13	0.048	0.004	0.18501
2	2027	1	2	10	0.0008	0.0510	0.0753	0.13	0.048	0.004	0.18501
3	2028	1	3	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
4	2029	1	4	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
5	2030	1	5	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
6	2031	1	6	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
7	2032	1	7	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
8	2033	1	8	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
9	2034	1	9	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
10	2035	1	10	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
11	2036	1	11	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
12	2037	1	12	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
13	2038	1	13	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
14	2039	1	14	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
15	2040	1	15	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
16	2041	1	16	3	0.0008	0.0510	0.0753	0.02	0.008	0.001	0.02913
17	2042	1	17	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
18	2043	1	18	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
19	2044	1	19	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
20	2045	1	20	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
21	2046	1	21	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
22	2047	1	22	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
23	2048	1	23	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
24	2049	1	24	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
25	2050	1	25	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
26	2051	1	26	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
27	2052	1	27	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
28	2053	1	28	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
29	2054	1	29	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
30	2055	1	30	1	0.0008	0.0510	0.0753	0.00	0.001	0.000	0.00323
Total Increased Cancer Risk			**Total**					0.60	0.217	0.019	**0.84**

* Third trimester of pregnancy

El Camino Real Traffic Health Risk Calculations at Off-Site Construction Cancer Risk and PM2.5 MEIs

Buena Vista Redevelopment - El Camino Real Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
Construction MEI Off-Site Residential Cancer Risk Receptor (4.5 meter receptor height)

Emissions Year	2025
Receptor Information	
Number of Receptors	1
Receptor Height =	4.5 meters above ground level
Receptor distances =	at construction Cancer Risk MEI receptor
Meteorological Conditions	
Moffett Field BAAQMD Hourly Data	2013-2017
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Emission Years	Concentration (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
2025	0.00058	0.0351	0.0519

Emission Years	PM2.5 Concentrations (µg/m^3)
	Total PM2.5
2025	0.0351

Buena Vista Redevelopment - El Camino Real Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
Construction PM2.5 MEI - Off-Site Residential Receptor (1.5 meter receptor height)

Emissions Year	2025
Receptor Information	
Number of Receptors	1
Receptor Height =	1.5 meters above ground level
Receptor distances =	at construction PM2.5 MEI receptor
Meteorological Conditions	
Moffett Field BAAQMD Hourly Data	2013-2017
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Emission Years	Concentration (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
2025	0.00093	0.0596	0.0880

Emission Years	PM2.5 Concentrations (µg/m^3)
	Total PM2.5
2025	0.0595

Buena Vista Redevelopment - El Camino Real Traffic Maximum Cancer Risks
Construction MEI Off-Site Residential Cancer Risk Receptor (4.5 meter receptor height)
30-Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

	Infant/Child			Adult
Age -->	3rd Trimester	0 - <2	2 - <16	16 - 30
Parameter				
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information				Cancer Risk (per million)			
		Exposure		Age	Annual TAC Conc (ug/m3)						
Exposure		Duration		Sensitivity		Exhaust	Evaporative		Exhaust	Evaporative	
Year	Year	(years)	Age	Factor	DPM	TOG	TOG	DPM	TOG	TOG	Total
0	2024	0.25	-0.25 - 0*	10	0.0006	0.0351	0.0519	0.008	0.003	0.000	0.0109
1	2024	1	1	10	0.0006	0.0351	0.0519	0.10	0.033	0.003	0.1311
2	2025	1	2	10	0.0006	0.0351	0.0519	0.10	0.033	0.003	0.1311
3	2026	1	3	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
4	2027	1	4	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
5	2028	1	5	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
6	2029	1	6	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
7	2030	1	7	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
8	2031	1	8	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
9	2032	1	9	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
10	2033	1	10	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
11	2034	1	11	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
12	2035	1	12	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
13	2036	1	13	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
14	2037	1	14	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
15	2038	1	15	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
16	2039	1	16	3	0.0006	0.0351	0.0519	0.01	0.005	0.000	0.0206
17	2040	1	17	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
18	2041	1	18	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
19	2042	1	19	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
20	2043	1	20	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
21	2044	1	21	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
22	2045	1	22	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
23	2046	1	23	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
24	2047	1	24	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
25	2048	1	25	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
26	2049	1	26	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
27	2050	1	27	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
28	2051	1	28	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
29	2052	1	29	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
30	2053	1	30	1	0.0006	0.0351	0.0519	0.00	0.001	0.000	0.0023
Total Increased Cancer Risk			Total					0.43	0.149	0.013	**0.59**

* Third trimester of pregnancy

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Risk & Hazard Stationary Source Inquiry Form

This form is required when users request stationary source data from BAAQMD

This form is to be used with the BAAQMD's Google Earth stationary source screening tables.

Click here for guidance on coducting risk & hazard screening, including roadways & freeways, refer to the District's Risk & Hazard Analysis flow chart.

Click here for District's Recommended Methods for Screening and Modeling Local Risks and Hazards document.

Table A: Requester Contact Information

Date of Request	**5/8/2024**
Contact Name	Jordyn Bauer
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x106
Email	jbauer@illingworthrodkin.com
Project Name	Buena Vista Redevelopment
Address	3980 EL Camino Real
City	Palo Alto
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Residential
Project Size (# of units or building square feet)	105
Comments:	

For Air District assistance, the following steps must be completed:

1. Complete all the contact and project information requested in **Table A** ncomplete forms will not be processed. Please include a project site map.

2. Download and install the free program Google Earth, **http://www.google.com/earth/download/ge/,** and then download the county specific Google Earth stationary source application files from the District's website, **http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.** The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.

3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.

4. Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.

5. List the stationary source information in **Table B** blue section only.

6. Note that a small percentage of the stationa ve Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name ght). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.

7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

Note that a public records request received for the same stationary source information will cancel the processing of your SSIF request.

Submit forms, maps, and questions to Matthew Hanson at 415-749-8733, or mhanson@baaqmd.gov

Table B: Google Earth data

Distance from Receptor (feet) or MEI[1]	Plant No.	Facility Name	Address	Cancer Risk[2]	Hazard Risk[2]	$PM_{2.5}$[2]	Source No.[3]	Type of Source[4]	Fuel Code[5]	Status/Comments	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
600	107164	Jim Davis Texaco	3972 El Camino Real	6.109	0.027	0		Gas Dispensing Facility		2021 Dataset, BAAQMD Public Records Request, CARB Gas Station Screening Tool	CARB TOOL	0.23	0.09	-
+1000	109991	Palo Alto Chevron	3897 El Camino Real	15.487	0.067	0		Gas Dispensing Facility		2021 Dataset, BAAQMD Public Records Request, CARB Gas Station Screening Tool	CARB TOOL	0.26	0.03	-

(Columns "Distance Adjustment Multiplier" through "Adjusted PM2.5" under heading: **Project MEI**)

Project Site

Distance from Receptor (feet) or MEI[1]	FACID (Plant No.)	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
150	107164	CARB TOOL	2.48	0.90	-
500	109991	CARB TOOL	1.03	0.14	-

Footnotes:

1. Maximally exposed individual

2. These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.
3. Each plant may have multiple permits and sources.
4. Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
5. Fuel codes: 98 = diesel, 189 = Natural Gas.
6. If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.

8. Engineer who completed the HRSA. For District purposes only.
9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
10. The HRSA "Chronic Health" number represents the Hazard Index.
11. Further information about common sources:
   a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
   b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard index of 0.003 or
   c. BAAQMD Reg 11 Rule 16 required that all co-residential (sharing a wall, floor, ceiling or is in the same building as a residential unit) dry cleaners cease use of perc on July 1, 2010.
   Therefore, there is no cancer risk, hazard or PM2.5 concentrations from co-residential dry cleaning businesses in the BAAQMD.
   d. Non co-residential dry cleaners must phase out use of perc by Jan. 1, 2023. Therefore, the risk from these dry cleaners does not need to be factored in over a 70-year period, but instead should reflect
   e. Gas stations can be adjusted using BAAQMD's Gas Station Distance Mulitplier worksheet.
   f. Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
   g. This spray booth is considered to be insignificant.

Date last updated:
03/13/2018

2022 CARB & CAPCOA Gasoline Service Station Industrywide Risk Assessment Look-up Tool
Version 1.0 - February 18, 2022

Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	**940000**	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	**500**	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	**8800**	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	**San Jose**	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	**180**	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Nearest Business (meters)	**180**	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Acute Receptor (meters)	**180**	Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Control Scenario	**EVR Phase I & EVR Phase II**	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.
Include Building Downwash Adjustments	**yes**	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.

Risk Value	Results
Max Residential Cancer Risk (chances/million)	**0.23**
Max Worker Cancer Risk (chances/million)	**0.02**
Chronic HI	**0.00**
Acute HI	**0.09**

2022 CARB & CAPCOA Gasoline Service Station Industrywide Risk Assessment Look-up Tool
Version 1.0 - February 18, 2022

Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	940000	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	500	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	8800	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	San Jose	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	45	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Nearest Business (meters)	45	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Acute Receptor (meters)	45	Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Control Scenario	EVR Phase I & EVR Phase II	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.
Include Building Downwash Adjustments	yes	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.

Risk Value	Results
Max Residential Cancer Risk (chances/million)	2.48
Max Worker Cancer Risk (chances/million)	0.20
Chronic HI	0.01
Acute HI	0.90

2022 CARB & CAPCOA Gasoline Service Station Industrywide Risk Assessment Look-up Tool
Version 1.0 - February 18, 2022

Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	**2780000**	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	**700**	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	**8800**	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	**San Jose**	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	**300**	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Nearest Business (meters)	**300**	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Acute Receptor (meters)	**300**	Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Control Scenario	**EVR Phase I & EVR Phase II**	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.
Include Building Downwash Adjustments	**yes**	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.

Risk Value	Results
Max Residential Cancer Risk (chances/million)	**0.26**
Max Worker Cancer Risk (chances/million)	**0.02**
Chronic HI	**0.00**
Acute HI	**0.03**

2022 CARB & CAPCOA Gasoline Service Station Industrywide Risk Assessment Look-up Tool
Version 1.0 - February 18, 2022

Required Value	User Defined Input	Instructions	
Annual Throughput (gallons/year)	2780000	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.	
Hourly Dispensing Throughput (gallons/hour)	700	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.	
Hourly Loading Throughput (gallons/hour)	8800	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.	
Meteorological Data	San Jose	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.	
Distance to Nearest Resident (meters)	150	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).	
Distance to Nearest Business (meters)	150	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).	
Distance to Acute Receptor (meters)	150	Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).	
Control Scenario	EVR Phase I & EVR Phase II	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.	
Include Building Downwash Adjustments	yes	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.	

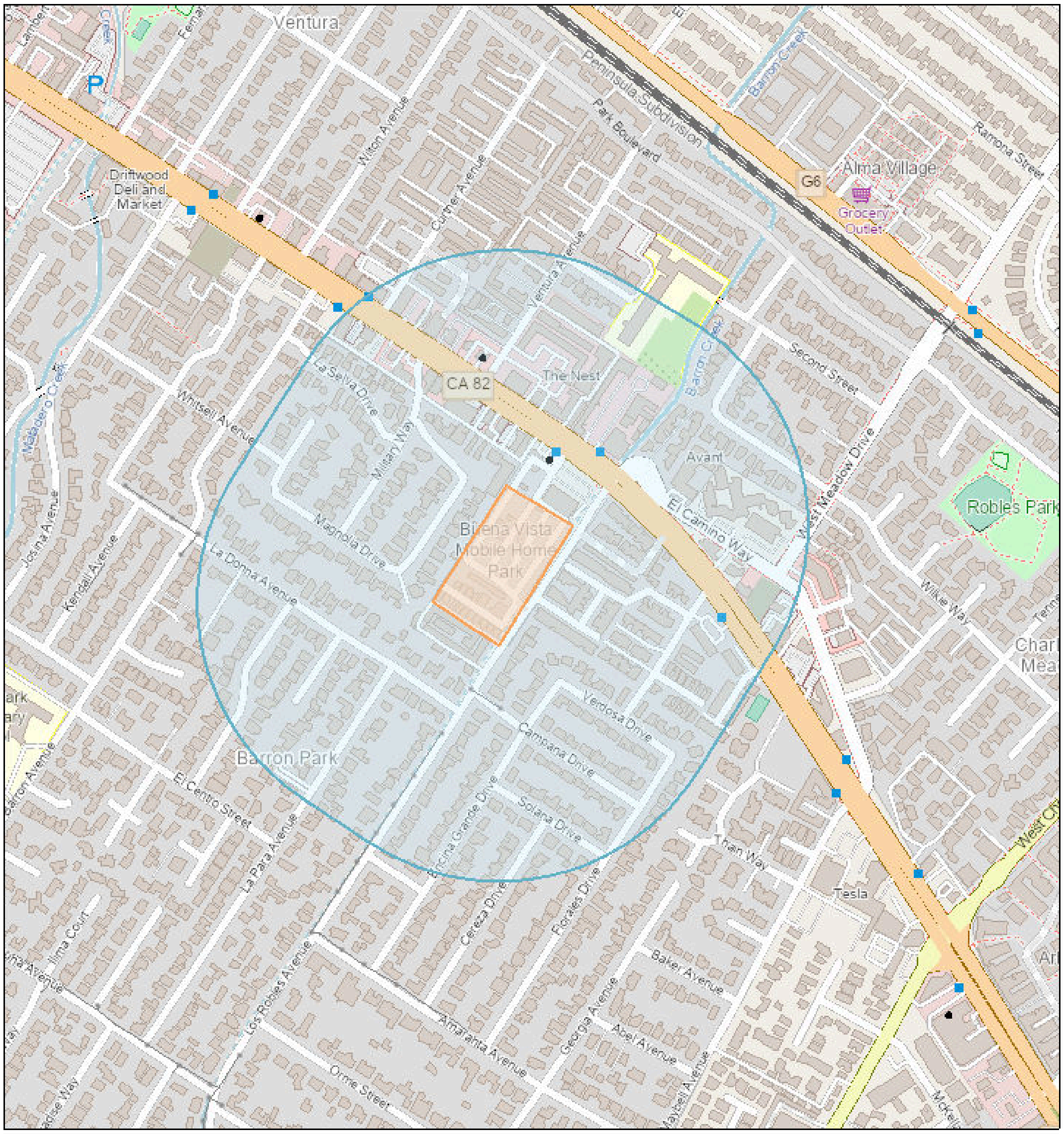
Risk Value	Results
Max Residential Cancer Risk (chances/million)	1.03
Max Worker Cancer Risk (chances/million)	0.09
Chronic HI	0.00
Acute HI	0.14

Screening Report

Area of Interest (AOI) Information

Area : 5,184,156.12 ft²

Apr 17 2024 11:10:48 Pacific Daylight Time



• Permitted Stationary Sources

1:9,028

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri

Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Stationary Sources	2	N/A	N/A

Permitted Stationary Sources

#	Facility_I	Facility_N	Address	City	State
1	107164	Jim Davis Texaco	3972 El Camino Real	Palo Alto	CA
2	109991	Palo Alto Chevron	3897 El Camino Real	Palo Alto	CA

#	Zip	County	Latitude	Longitude	Details
1	94306	Santa Clara	37.415967	-122.129100	Gas Dispensing Facility
2	94306	Santa Clara	37.417155	-122.130084	Gas Dispensing Facility

#	NAICS	NAICS_Sect	NAICS_Subs	NAICS_Indu	Cancer_Ris
1	447110	Retail Trade	Gasoline Stations	Gasoline Stations with Convenience Stores	6.109000
2	447110	Retail Trade	Gasoline Stations	Gasoline Stations with Convenience Stores	15.487000

#	Chronic_Ha	PM25	Count
1	0.027000	0.000000	1
2	0.067000	0.000000	1

NOTE: A larger buffer than 1000 feet may be warranted depending on proximity to significant sources.